GOOD PRACTICE GUIDELINES

Managing work site traffic

GUIDANCE FOR KEEPING HEALTHY AND SAFE AROUND VEHICLES AND MOBILE PLANT AT WORK SITES

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New Zealand Government

WORKSAFE
Mahi Haumaru Aotearoa

This guide provides practical advice on ways to identify and control the health and safety risks associated with work site traffic.

ACKNOWLEDGEMENTS

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Managing work site traffic

KEY POINTS

- Work site traffic can be a major cause of harm to workers and other people at work sites.
- Businesses have a duty to keep people safe around vehicles and mobile plant at work sites.
- Where more than one business shares a work site, they must work together to manage the risks related to work site traffic.
- Businesses must consult with their workers when deciding how to manage the risks related to work site traffic.

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Notes

Use of ‘must’ and ‘should’

The words ‘must’ and ‘should’ indicate whether an action is required by law or is a recommended practice or approach.

TERM	DEFINITION
Must	Legal requirement that has to be complied with
Should	Recommended practice or approach

Key terms

The glossary in Appendix A of this guide has a list of the technical words, terms, and abbreviations used in this guide and explains what they mean.

Lists

Lists of examples are not intended as complete lists. They may list some but not all possible examples.

Images

Images are a guide only. They are not intended to provide technical specifications.

1.0 Introduction

IN THIS SECTION:

1.1 Who should use these guidelines?

1.2 What are these guidelines about?

1.3 What types of traffic do these guidelines cover?

1.4 What types of work sites do these guidelines cover?

1.5 Keys terms used in these guidelines

Work site traffic can be a major cause of harm to workers and other people at work sites.

1.1 Who should use these guidelines?

These guidelines are for any person conducting a business or undertaking (PCBU) who manages a work site where there are vehicles or mobile plant operating, or whose workers carry out work at a work site where there are vehicles or mobile plant operating.

It may also be useful for workers, health and safety professionals, or traffic management consultants who are providing traffic management advice to PCBUs.

1.2 What are these guidelines about?

These guidelines provide advice on ways to manage traffic-related risks for workers and other people at work sites. It provides examples of commonly used control measures and when they might be appropriate to use.

The guidance is grouped into five main areas:

- general risk management principles
- safe work site (design and activity)
- safe vehicles
- safe people
- work site induction and traffic management plans.

These guidelines can help PCBUs to meet their duties under the Health and Safety at Work Act 2015 (HSWA).

Some of the examples offered in these guidelines will be more relevant to some industries or work sites than others. Every work site will have unique factors that need to be considered. Each PCBU will have to decide which control measures are reasonably practicable for their situation.

See Appendix B: The Health and Safety at Work Act 2015 for more information on how to decide what is reasonably practicable.

A qualified traffic management consultant (such as a traffic engineer) may be able to provide further traffic management advice specifically tailored to your particular work site.

1.3 What types of traffic do these guidelines cover?

These guidelines cover all types of traffic such as light vehicles, heavy vehicles and mobile plant that may be driven or operated at a work site. This includes when entering and exiting a work site.

Examples of work site vehicles covered by these guidelines include:

HEAVY AND LIGHT VEHICLE EXAMPLES	POWERED MOBILE PLANT EXAMPLES
– Cars – Trucks (dump trucks, truck and trailers, articulated trucks) – Vans – 4x4s – Motorcycles – Buses	– Materials handling equipment (forklifts, reach trucks, walkie stackers, telehandlers) – Tractors and other agricultural vehicles – Heavy machinery (loaders, excavators) – Elevated work platforms/mobile cranes

TABLE 1:
Vehicle examples

1.4 What types of work sites do these guidelines cover?

There are two main types of work sites – **static work sites** where the layout generally stays the same, and **dynamic work sites** where the layout may change from time to time. These guidelines cover both types of work sites.

These guidelines cover both indoor and outdoor traffic activities.

Examples of work sites covered by these guidelines include:

STATIC WORK SITE EXAMPLES	DYNAMIC WORK SITE EXAMPLES
– Warehouses – Factories/manufacturing sites – Retail sites (supermarkets, shopping malls) – Timber yards (including retail building/ hardware supply stores) – Postal/courier depots – Distribution centres – Waste transfer stations	– Farms – Construction sites – Forestry sites – Trucking yards – A&P shows, carnivals, concerts – Orchards and vineyards – Landfills

TABLE 2:
Work site examples

These guidelines do not cover work being done on public roads except when the vehicle is being loaded or unloaded on a public road adjacent to a work site.

These guidelines are not intended to apply to public car parks except where the work activity is being carried out in a public car park or where vehicles are crossing a public car park to access a work site.

For work on public roads, PCBUs should consult with the local road controlling authority – usually the local council or Waka Kotahi NZ Transport Agency. A traffic management plan that meets the requirements of the *Code of Practice for Temporary Traffic Management* (CoPTTM) may be required: www.nzta.govt.nz

1.5 Keys terms used in these guidelines

In these guidelines the following terms will be used with the following meanings:

- vehicle will be used to refer to all types of vehicles and mobile plant
- driver will be used to refer to all drivers and operators of vehicles and mobile plant
- pedestrian will be used to refer to a person or people on foot in proximity to work site vehicles. This could be workers, visitors, or members of the public.

See Appendix A: Glossary for a complete list of the technical words, terms, and abbreviations used in these guidelines and an explanation of what they mean.

Some industries have specific guidance that includes requirements for managing work site traffic (for example, mining and quarrying and forestry). These guidelines should be read in conjunction with any existing industry-specific guidance.

2.0
Working together with other PCBUs

IN THIS SECTION:

2.1 Dynamic work site example

2.2 Static work site example

Where more than one business shares a work site, they must work together to manage the risks related to work site traffic.

Often there will be more than one PCBU operating at a work site, or PCBUs will be working within a contracting chain with other PCBUs. In these situations the PCBUs will likely have health and safety duties for the same risks. This is known as overlapping duties.

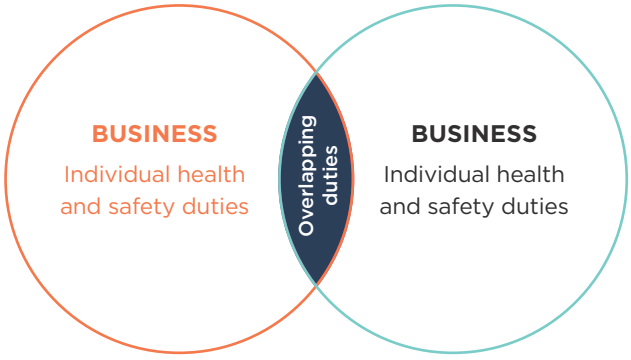


FIGURE 1:
Overlapping duties

PCBUs that share the same duties at a work site (or through a contracting chain), must consult, cooperate and coordinate with each other to manage the shared risk so far as is reasonably practicable.

One PCBU cannot push the responsibility to manage risk on to another PBCU and they cannot contract out of their responsibilities to manage risk.

Shared work sites can include:

- work sites where there is a main PCBU present and vehicles operated by other PCBUs come and go with pick-ups and deliveries. For example, factories and warehouses
- work sites where a PCBU may be operating on land leased from another PCBU. The PCBU leasing the site and the landlord both have a responsibility to make sure the work site is safe
- work sites where there is a main PCBU with other PBCUs contracted to perform certain tasks at the work site. For example, construction sites
- work sites where the facilities are owned by one PCBU and several PCBUs work independently of each other but share some aspects of the work site (such as shared vehicle entry and exits)
- vehicles where workers of more than one PCBU are at work. For example, supermarket workers unloading a trailer owned by a transport operator.

PCBUs should decide together how the risks will be managed. For example, they could agree that the PCBU that manages the work site focuses on control measures related to their work site layout, while the PCBU whose vehicles visit the work site focuses on control measures related to their vehicles and drivers. Both should work together to establish safe practices for activities that involve workers from both PCBUs, such as loading and unloading, and spotting reversing vehicles.

2.1 Dynamic work site example

A large construction site needed to change its layout to accommodate the development of the project. As part of redesigning the site layout, the site manager needed to shift the vehicle entry and exit points.

As a part of planning the new layout, the site manager consulted with the transport operators that visit the site regularly to make sure that the proposed design was safe for drivers making deliveries and pick-ups. By talking with the other PCBUs first, the site manager was able to make sure the proposed layout was workable, and confirm that it would not introduce new risks for drivers.

The site manager and transport operators were then able to coordinate communication so that all workers (site workers and the drivers) were aware of the changes, including the updated traffic management plan, beforehand.

2.2 Static work site example

A large commercial warehouse, is divided into several sections. Each section is leased to a separate PCBU, who all work independently of each other. The PCBUs share a common street entrance and main thoroughfare around the building, and a visitor car park.

The PCBUs and the warehouse landlord met together, and agreed on how to manage the traffic risks in the shared areas of the work site. This included the landlord agreeing to install barriers to protect pedestrian walkways.

The landlord and PCBUs agreed to set up a traffic management committee to write a traffic management plan covering the shared areas. They agreed to common work site rules/expectations for the shared areas.

See Section 8.3 Traffic management committees for more information.

For more information on overlapping duties, see our website: worksafe.govt.nz

3.0
Risk management

IN THIS SECTION:

3.1 Identify potential hazards

3.2 Assess the risk

3.3 Manage the risk

3.4 Review control measures

Using a risk management approach can help you to identify and manage traffic related dangers at a work site.

Risks to health and safety arise from people being exposed to a hazard (a source or cause of harm).

As a PCBU, you must manage risks so that workers and other peoples' health and safety is not put at risk by the work that you do. Risk management is about identifying hazards and assessing risks, applying control measures to eliminate or minimise those risks, and regularly reviewing control measures.

You must consult with your workers and their representatives at all steps of the risk management process. For more information see Appendix C: Worker engagement and participation

3.1 Identify potential hazards

With your workers, identify potential hazards at your work site.

Potential hazards include those that can cause acute injuries and those that can harm people's long-term health. The following suggestions can help you identify potential hazards (sources or causes of harm) related to work site traffic:

- Look around your work site. Are there areas where people and vehicles are in close proximity to each other?
- Look at your floor plan or layout of your work site:
  - Are there blind spots, areas where sunstrike might occur, tight corners, low light areas, or other areas of poor visibility?
  - Look for areas where space is tight, restricting the manoeuvrability of vehicles.
- Look at the driving surfaces at your work site, are there steep slopes or uneven terrain?
- Are there any natural hazards near vehicle operating areas such as bodies or water or steep drop-offs?
- Think about hazards resulting from the weather, or different seasons. For example, excess surface water from rain, ice in winter, strong winds, or fog.
- Is there tall racking or goods stacked high near vehicle operating areas?
- Are there hazardous substances stored near vehicle operating areas? For more information on hazardous substances, see our website: worksafe.govt.nz
- Could vehicles be used outside their limits or capabilities or be operated at potentially unsafe speeds?

- Are there vehicles (including visiting vehicles) that have driver blind spots?
- Are there vehicles (including visiting vehicles) that produce excessive fumes, vibration, or noise?
- Could workers/drivers be affected by drugs, alcohol or fatigue?
- Are there potential worker/driver distractions (such as cell-phones, work pressures, home pressures)?

The above list is just some suggestions of what to consider or look out for. Every work site is different. Looking around your work site and thinking 'what could go wrong' may help you to identify more hazards.

You should also ask other people who frequently visit your work site about what hazards they may have encountered. Reviewing your incident and injury records (including near misses) may also help identify hazards.

3.2 Assess the risk

With your workers, you will need to carry out a risk assessment for each hazard you have identified. Things you should consider include:

Who might be exposed to the hazard?

- Think about who is at your work site, for example, workers, contractors, drivers, customers, children, or other visitors.
- Does the hazard have the potential to harm many people at once?

How could workers or others be harmed? For example:

- being hit by a vehicle
- being trapped between a vehicle and a structure
- vehicles colliding with each other or a structure
- falling from a vehicle
- being hit by items falling off a vehicle (unsecured or unstable loads)
- injured as a result of improper use of a vehicle
- exposure to unsafe levels of fumes or excessive noise from vehicles.

How severe could the harm be?

Could the hazard result in serious harm or a fatality?

How often is the hazard likely to cause a risk?

- Are there certain times of the day that are busier than others? For example, store open hours or the beginning and end of shifts.
- Are there certain times of the year that are busier than others?
- Are there likely to be seasonal variations to the level of risk?

How could people's health be affected?

Could the hazard cause short or long term health problems for the affected person/people?

How likely are these consequences?

What is the likelihood of somebody being harmed by the hazard?

Decide which risks to deal with first. For example, risks with potentially significant consequences such as serious injury or death, chronic ill-health, or those with a high chance of happening should be prioritised.

3.3 Manage the risk

You must take all reasonably practicable actions to eliminate or minimise the risks you and your workers have identified.

The ways of controlling risks can be ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of control measures. Using the hierarchy of control measures to manage risks will help you to make sure you are using the most effective control measures first.

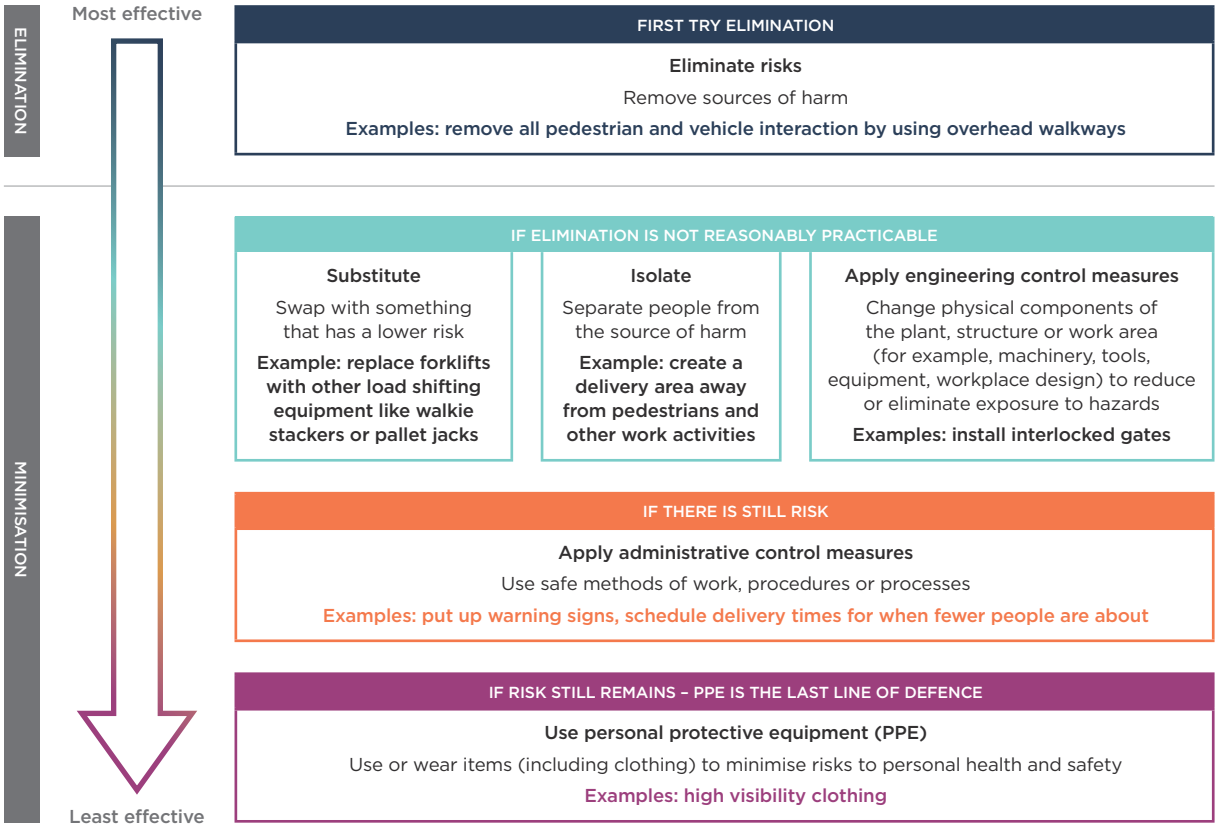


FIGURE 2: Hierarchy of control measures

A combination of control measures can be used if a single control measure is not enough to minimise the risk. When considering which control measures are the most suitable, check that the proposed control measure will not introduce new risks.

Note: Further examples of commonly used control measures for work site traffic management are covered in more detail in Sections 4 to 7 of these guidelines.

3.4 Review control measures

Check your control measures regularly to make sure they are working as planned. Control measures need to be regularly reviewed in consultation with your workers or their representatives, to make sure they remain effective. For more information, see Appendix C: Worker engagement and participation

If your work site or work activities change, you need to check that your existing control measures are still the most appropriate ones to use.

This is particularly important for dynamic work sites (such as construction sites) where the layout and types of vehicles present may regularly change.

For more detailed information on managing health and safety risks at work, see our website: worksafe.govt.nz

For more information on incident reporting requirements, see our website: worksafe.govt.nz

4.0 Safe work site – design

IN THIS SECTION:

4.1 Keep pedestrians and vehicles apart

4.2 Have designated pedestrian crossings

4.3 Plan vehicle routes

4.4 Keep vehicle routes clear of known hazard areas

4.5 Avoid vehicle routes that cross public parking and pedestrian areas

4.6 Maintain road surfaces

4.7 Have dedicated parking areas

4.8 Provide good visibility and lighting

4.9 Install clear signage

4.10 Clearly identify traffic and activity zones

4.11 Keep markings consistent

A well planned and designed work site can reduce the risks to people working near work site traffic.

This section provides examples of ways you can control work site traffic risks from a site design or layout perspective. This may be particularly useful when planning or setting up a new work site, but many control measures can also be added to existing work sites as well (such as adding barriers and signage).

As a PCBU, you will need to assess your individual situation to decide what control measures will be the most effective, and reasonably practicable for your situation. This may mean adopting a combination of control measures to manage the risk.

When planning a new work site, consideration also needs to be given to any resource consent or building consent requirements, including any traffic management requirements.

4.1 Keep pedestrians and vehicles apart

The main aim of any work site design should be the separation of vehicles and pedestrians as much as possible.

The most effective way of making sure pedestrians and vehicles can move safely around a work site is to provide **separate pedestrian and vehicle traffic routes**. You could eliminate just about all interaction by using overhead walkways (see Figure 3).

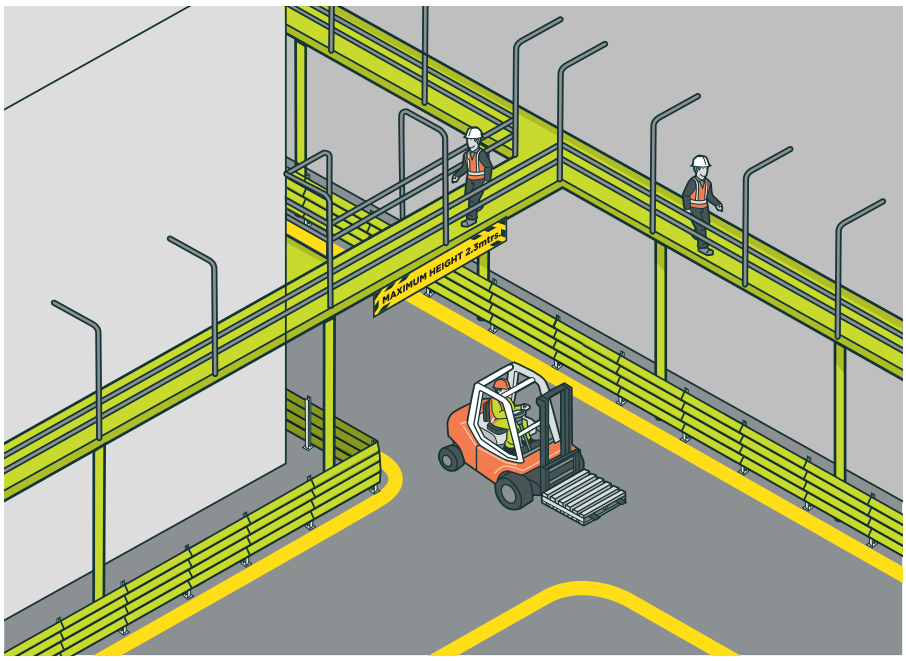


FIGURE 3:
Overhead walkways

However, historical work site layouts, lack of space, or other constraints, may mean it is not reasonably practicable to install overhead walkways.

If it is not reasonably practicable to install overhead walkways to keep pedestrians separated from vehicles, you should consider the following control measures:

- Create exclusion zones (for example, forklift-only areas in loading bays) or pedestrian-only areas (in particular around breakrooms and facilities).
- Use barriers or guardrails to stop pedestrians entering vehicle areas. For example:
  - high impact traffic control barriers (see Figure 4)
  - lines painted on the ground and bollards (see Figure 5)
  - temporary physical barriers (see Figure 6).
- Have separate entrances and exits for vehicles and pedestrians (see Figures 7, 8 and 9).

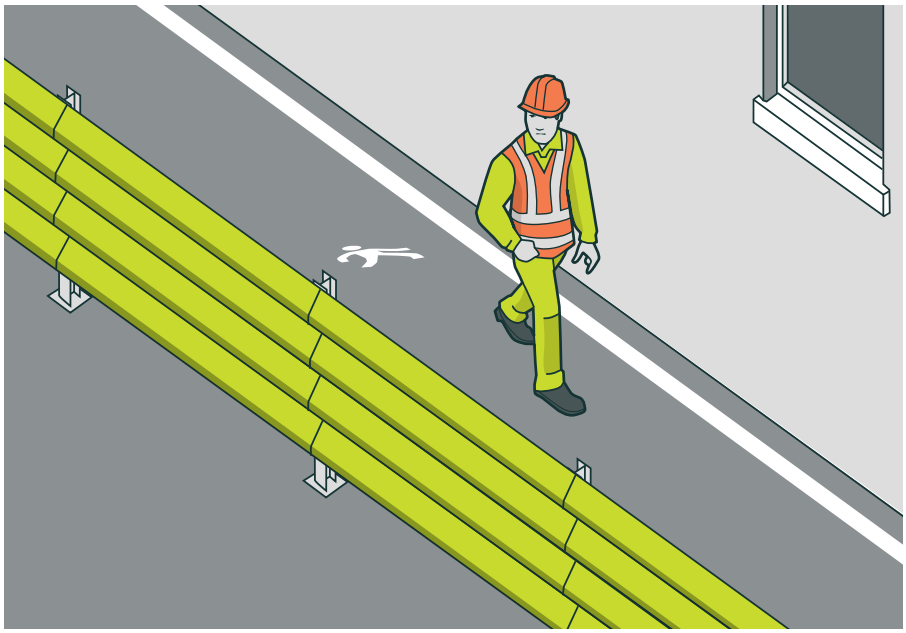


FIGURE 4:
High impact barrier

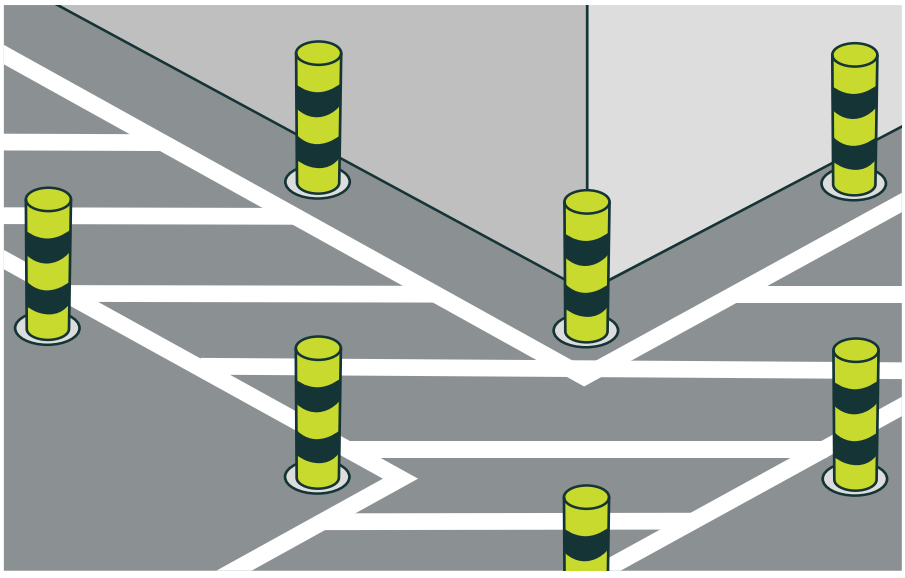
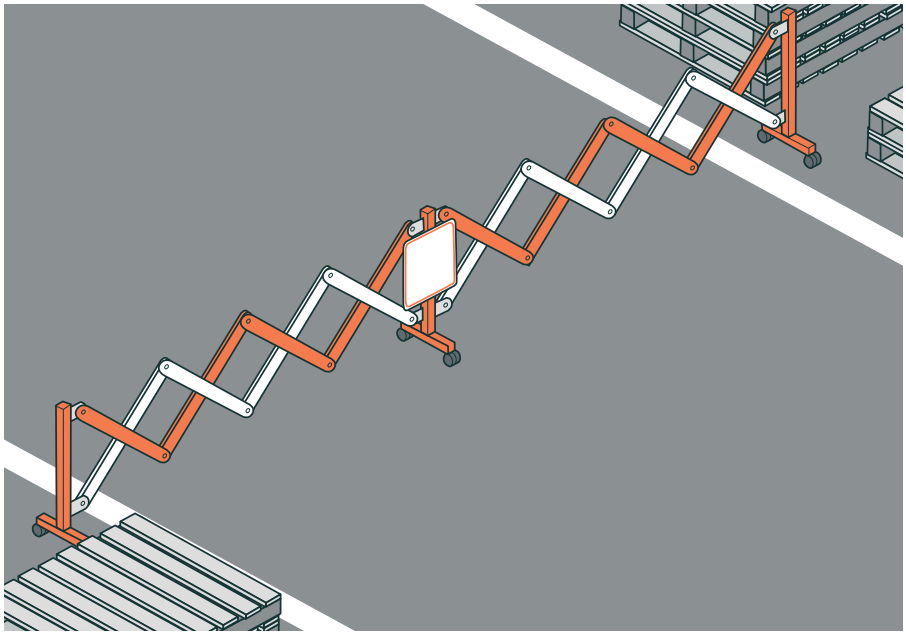


FIGURE 5:
Walkway marked with lines and bollards



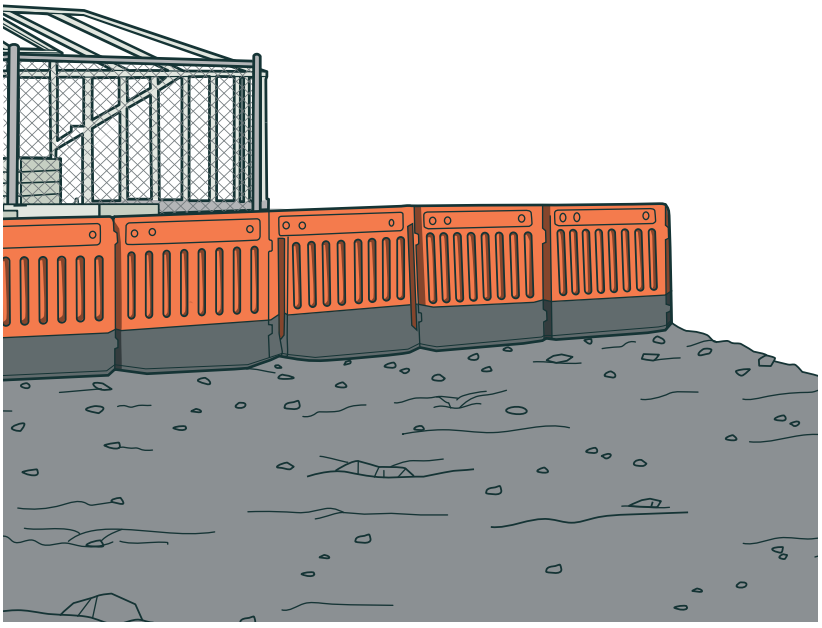


FIGURE 6:
Examples of temporary barriers

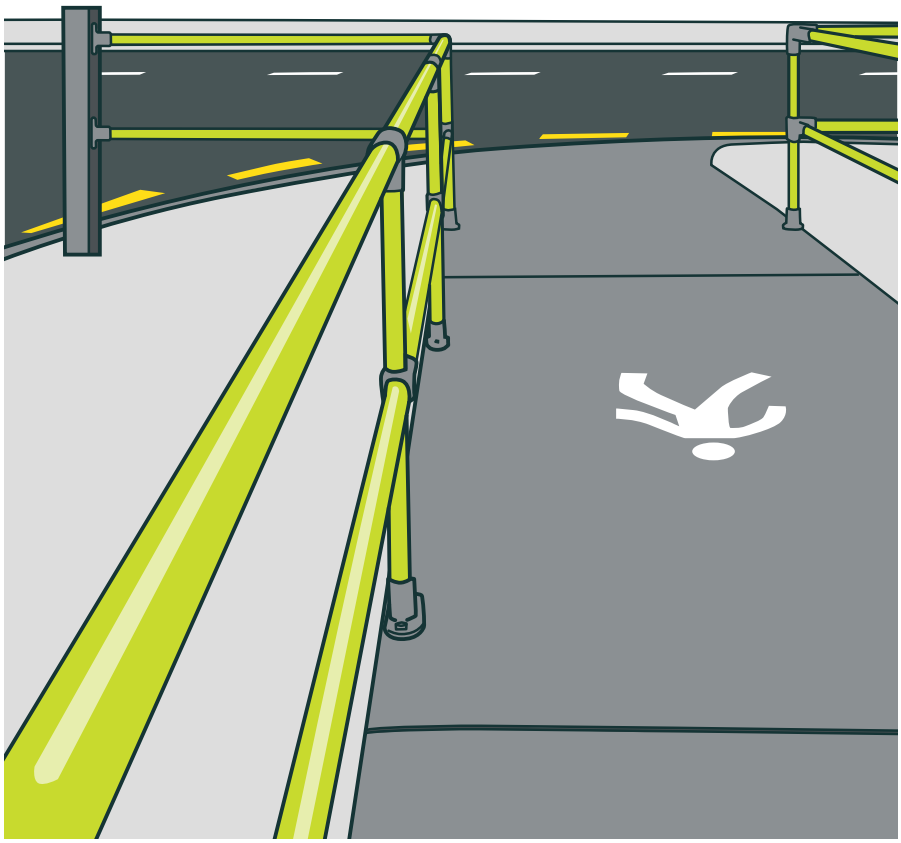


FIGURE 7:
Separate work site entry for pedestrians

FIGURE 8:
Separate entry for vehicles and pedestrians at a dynamic work site

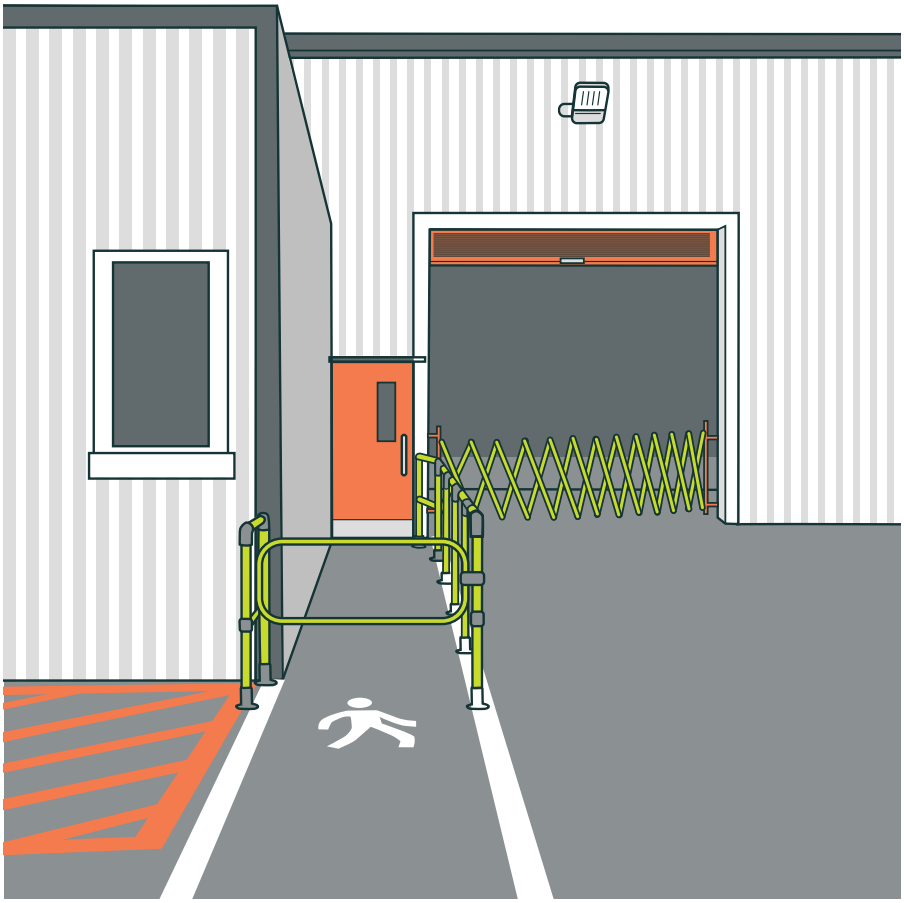


FIGURE 9:
Separate building entry/exit for pedestrians (with gate extended to stop pedestrians walking through vehicle entrance/exit)

For static work sites, barriers and guard rails should be suitable for what they are providing protection from. High impact barriers could be used to stop vehicles from entering pedestrian walkways. Low impact barriers could be used to keep pedestrians within pedestrian routes.

When planning pedestrian routes, create paths pedestrians would naturally follow so they will be more likely to stay on the path and not take shortcuts.

If possible, schedule work so vehicles and pedestrians are not in the same area at the same time. For example, only accepting deliveries during certain hours, when there are no pedestrians about.

4.2 Have designated pedestrian crossings

Where pedestrian and vehicle traffic routes cross, there should be clear ground markings, lights and signs to show that it is a crossing area. Typically vehicles will have the right of way **unless the pedestrian is already on the crossing** when a vehicle approaches.

Pedestrians should not cross unless all vehicles are well clear of the crossing, or the vehicle has stopped and the pedestrian and driver have positively acknowledged each other's presence and made confirmed eye contact. Any vehicle that has stopped at a pedestrian crossing should wait until the pedestrian is well clear of the crossing before moving again.

Consider control measures to stop pedestrians from accidentally stepping out into traffic areas without stopping and checking first (see Figure 10).

For example:

- install interlocked gates in front of crossing areas
- install gates that open towards the pedestrian
- install gates with warning devices
- use a traffic light system or have a competent worker direct traffic.

These methods create a stop or pause in the pedestrian's movement before entering a vehicle area.

Alternatively, you could have pedestrian crossings where vehicles must stop behind barriers that lower when a pedestrian is crossing the vehicle route (see Figure 11).

Pedestrians and vehicles should have good visibility. Do not store goods near crossing areas in a way that could block people's view.

Check there are no slip or trip hazards, especially near pedestrian crossing areas.

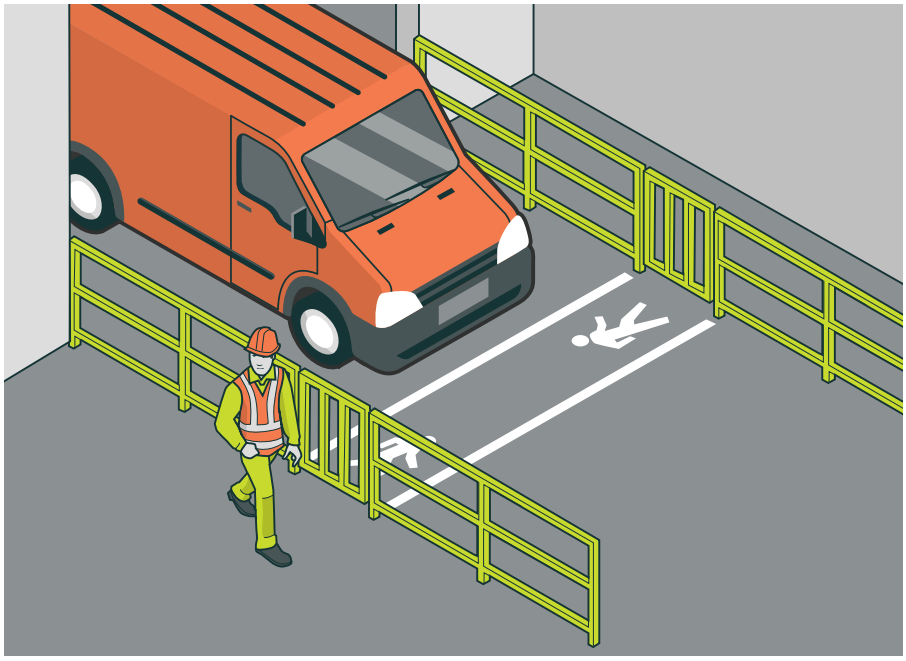


FIGURE 10:
Gated compulsory stop with internally opening gate

FIGURE 11:
Pedestrian with right of way when barriers are lowered

4.3 Plan vehicle routes

Ideally work sites should have a one-way system with separate entry and exit points. This removes the need for vehicles to reverse.

Where it is not possible to have a one-way system, traffic lanes should be clearly marked:

- make allowances for stopping distances
- traffic lanes should be wide enough for stationary vehicles to be passed safely and overhead clearance high enough for the largest vehicle that may use them
- create designated turning areas that are wide enough for vehicles to reverse/turn without entering pedestrian or loading/unloading areas. See Section 5.2 Reversing vehicles

4.4 Keep vehicle routes clear of known hazard areas

Avoid putting vehicle routes and parking areas near designated hazardous substance storage areas. For more information on hazardous substances, see our website: worksafe.govt.nz

If vehicle routes come close to building columns, pipework, storage racking or cables, install barriers to protect them from vehicle impacts.

4.5 Avoid vehicle routes that cross public parking and pedestrian areas

Where relevant, work site traffic should have separate entry and exit points from the general public. When planning or setting up new work sites, avoid creating vehicle routes that require delivery vehicles to travel through public car parks to access loading/unloading bays.

Where historical layouts require drivers to navigate public car parks or park on public roads to unload, the additional risks this creates should be clearly addressed in a work site traffic management plan. Control measures may include:

- only accepting smaller delivery vehicles at that work site
- staggering delivery times so only one vehicle is present at a time
- setting delivery hours outside of shop hours
- using a spotter to help guide the driver.

Temporary traffic routes

Dynamic work sites, for example construction and forestry sites, often have routes for vehicles and pedestrians that change as work progresses. Where possible, these routes should follow the same basic standards as for the static traffic routes listed above. Temporary physical barriers can be used to keep people out of exclusion zones (see Figure 6). Road cones or roadside edge markers could be used to indicate traffic routes.

Reviewing control measures is especially important for dynamic work sites where the risks may change often.

4.6 Maintain road surfaces

Driving surfaces should be firm, even and flat. When planning or building new traffic routes:

- make sure driving surfaces are able to drain well so that water cannot build up
- avoid steep slopes and sharp bends (these can affect vehicle stability and increase the risk of rollovers)

- consider any seasonal effects on the road surface:
  - temporary roads or general traffic operating areas need to have good drainage to avoid becoming muddy in wetter months
  - consider if dust suppression may be required in drier months to maintain visibility for vehicles and limit dust exposure for workers.

Driving surfaces should be properly maintained and kept clear of debris. Potholes should be repaired immediately. Any line markings should be maintained so they remain bright and clear.

4.7 Have dedicated parking areas

Parking for workers, visitors, trucks and other vehicles should be located away from busy work areas and traffic routes.

Walkways leading to and from parking areas should be separated from vehicles and vehicle routes. Avoid layouts where workers and visitors have to walk through work site traffic to get to and from the car park. Use physical control measures like barriers or bollards to stop vehicles from crossing into walking areas (see Figure 12).

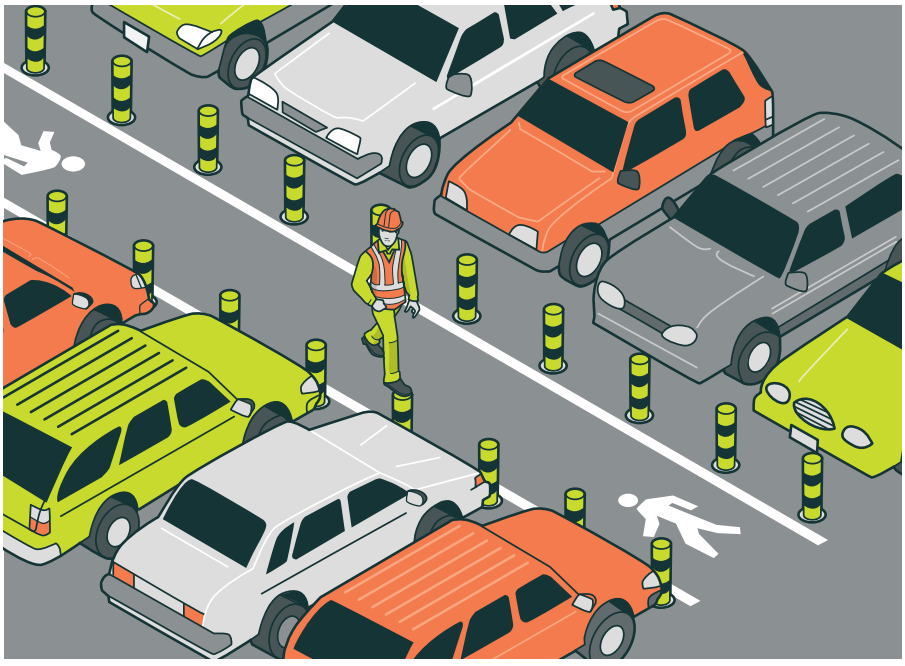


FIGURE 12: Pedestrian walkway in worker car park

4.8 Provide good visibility and lighting

Work sites should be designed so drivers and pedestrians can always see each other clearly:

- avoid creating sharp bends or tight corners that could create blind spots
- make sure pedestrian crossings are clearly visible to drivers
- make sure there are no obstructions to visibility near the pedestrian crossing area
- keep all areas well lit – especially walkways, vehicle routes, manoeuvring areas, truck lay down areas, junctions, and buildings
- consider the use of mirrors where blind corners cannot be avoided
- make sure that any doors opening into traffic areas have vision panels (fire rated glass can be used in fire doors).

4.9 Install clear signage

For general work site signage:

- Signs should be well positioned, well lit, clean, and clear and easy to read for pedestrians and drivers.
- Keep signage simple and uncomplicated. If more detail is required, include this in work site induction documents. See Section 8: Work site induction and traffic management plans
- Signs for drivers and pedestrians should be the same as those used on public roads, wherever a suitable sign exists. Otherwise, use industry accepted signs and colours (see Figure 13), for example:
  - red for danger or prohibited activities
  - yellow or amber for warnings or caution required
  - blue for mandatory requirements
  - green for emergency escapes, exits and facilities
  - for more information on safety signs for the occupational environment guidance, see Standards New Zealand: shop.standards.govt.nz

Examples of signs you should have at a work site include:

- work site traffic rules and all other key health and safety requirements for that work site (at all points of entry to the work site)
- signs to show exclusion and safety zones
- parking areas
- speed limits
- vehicle crossings
- hazards like blind corners, steep gradients, sharp turns, and where forklifts are in use
- signs stating if the work site is using left-hand or right-hand bi-directional traffic management.

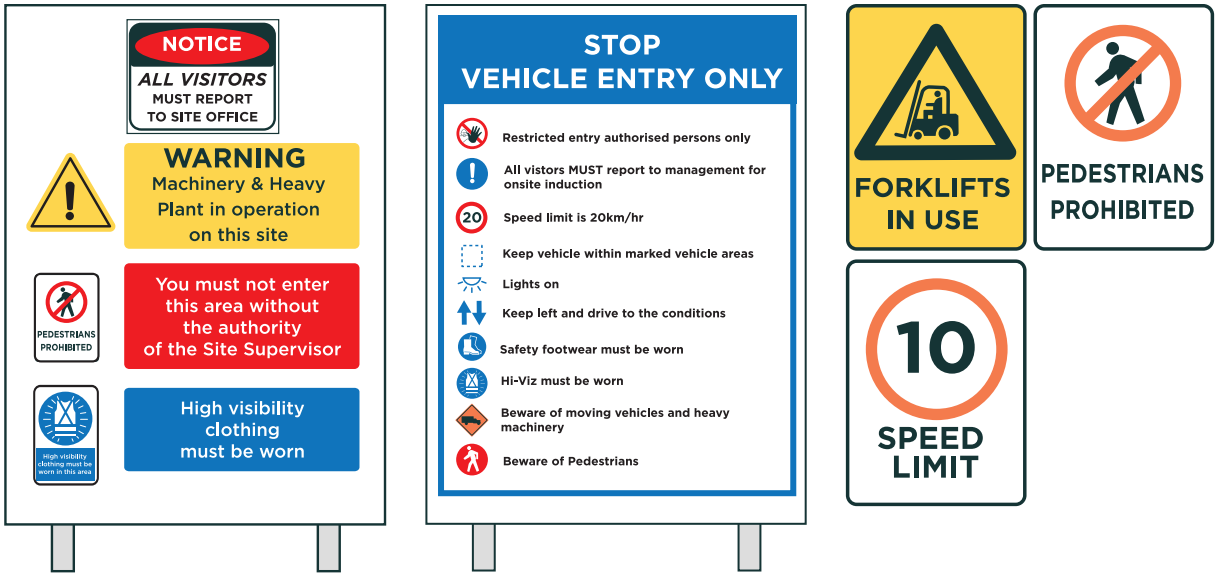


FIGURE 13: Examples of work site signage

4.10 Clearly identify traffic and activity zones

Areas designated for certain activities should be clearly marked using signs, colour coded road or floor markings, and barriers. For example, loading/unloading areas, pedestrian areas, and forklift operating areas.

Road/floor markings should be regularly maintained to remain clearly visible. Consider using reflective paint, particularly for outdoors environments.

Use temporary barriers and signs for dynamic work sites or work sites with unsealed surfaces where ground marking is not suitable.

4.11 Keep markings consistent

Colour-coded zones should be consistent with industry guidelines so that the same colours mean the same type of work zone across different sites and businesses. This will help drivers who visit many sites in a day to more easily know the different areas at each site they visit.

5.0 Safe work site – activity

IN THIS SECTION:

5.1 Speed

5.2 Reversing vehicles

5.3 Parking

5.4 Coupling and uncoupling

5.5 Loading and unloading

5.6 Driver waiting areas

5.7 Loading and unloading shipping containers

5.8 Tipping

5.9 Tarping/load securing

5.10 Queuing vehicles

Safe work site practices can help reduce the risks to people working in or near work site traffic.

This section provides examples of safe practices for common vehicle-related work site activities. These suggested control measures can help minimise the risks associated with vehicles at work sites.

As a PCBU, you will need to assess your individual situation to decide what controls measures will be the most effective and reasonably practicable for your situation. This may mean adopting a combination of control measures to manage the risk.

5.1 Speed

Reducing vehicle speed is an important part of work site vehicle safety.

Set a maximum speed limit for your work site:

- Speed limits should be based on the individual circumstances of your work site but should remain within industry accepted levels (for example, 10km/h in trucking yards and 30km/h on farms).
- To assess a suitable speed limit, consider the route layout and use. For example, lower speeds will be better where pedestrians are present or where forklifts and road-going vehicles share a traffic route.
- Speed limits need to be properly enforced and, where possible, consistent across the work site.
- Consider consulting a suitably qualified person such as a traffic engineer, or traffic planner on what speed limits might be suitable for your work site and the vehicles that operate there.

Speed control measures such as speed cushions (see Figure 14), chicanes and rumble strips may also be useful for reducing speed. But you need to make sure they are not going to create new risks such as vehicle instability or limit visibility for drivers.

Consider installing speed-limiting devices on work site vehicles where keeping vehicles and workers in separate areas is not reasonably practicable – especially for vehicles used inside warehouses or in close proximity to workers.

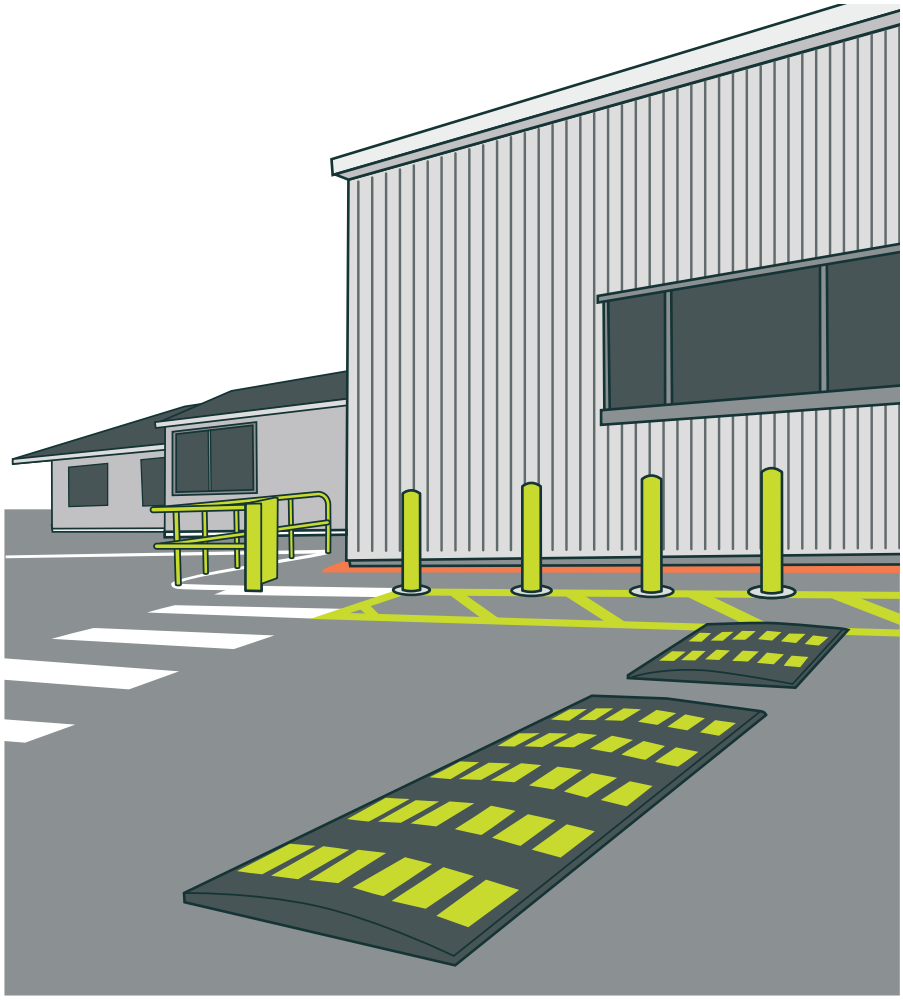


FIGURE 14:
Speed cushions

5.2 Reversing vehicles

The most effective way of reducing reversing incidents is to eliminate the need for reversing by:

- having a one-way drive-through loading and unloading system
- using multi-directional vehicles or vehicles with rotating cabins
- having designated turning areas that are separated from pedestrians and all other work site activities.

Where these control measures are not reasonably practicable, you should consider:

- using devices like reversing sensors, reversing cameras, mirrors, rotating lights or audible reversing alarms (make sure these are always kept clean and in working order)
- using a competent person to guide the reversing vehicle (see Spotting below)
- using radios and other communication systems
- providing a designated clearly marked, signposted and well-lit reversing area with barriers around it to stop pedestrians from entering the area.

Spotting

The job of a spotter is to guide drivers when reversing and make sure reversing areas are free of pedestrians.

If you use a spotter, make sure:

- the spotter is always in visible contact with the driver and wearing high-visibility clothing
- the spotter stands in a safe position throughout the reversing operation
- the spotter and driver both understand and agree on the standard spotting signs to be used.

In industries where vehicles can be very large (such as quarrying), radio contact should be used, with the spotter in a safe location away from the vehicle but still able to see what is happening.

For more detailed guidance on safe reversing and spotting practices, see our website: worksafe.govt.nz

5.3 Parking

Parking areas should be clearly signposted. There should be separate parking areas for commercial and private vehicles, and designated areas where commercial vehicles can be loaded and unloaded.

When vehicles are parked, their parking brakes should always be applied.

Drivers should never leave a vehicle unattended without making sure the vehicle and the trailer are securely braked, the engine is off and the key to the vehicle has been removed.

Avoid parking smaller vehicles behind large ones or in areas where the driver does not have clear visibility of the smaller vehicle.

Parking areas should be on level ground so parked vehicles cannot roll away. Where this is not possible consider:

- installing wheel stops in parking areas to stop vehicles rolling away
- making sure the wheels of vehicles are pointed towards a safe stopping place like a curb or a wall so the vehicle or equipment does not accidently roll away
- chocking the wheels of parked vehicles.

If loading docks are used, they should be built so that there is a slight down-hill slope leading into the dock, to naturally keep the vehicle in the dock.

5.4 Coupling and uncoupling

Coupling and uncoupling should be done in a designated area that:

- is well lit
- has a firm and level surface
- has a surface suitable for the tare weight of the trailer and truck.

Trailer and tractor unit parking brakes should be used as appropriate.

Trailer swaps should be done in designated truck stop areas, away from busy roads and with good lighting.

5.5 Loading and unloading

To minimise the risks to workers involved in loading and unloading vehicles, information should be provided on the nature of the load and how it should be properly loaded, secured and unloaded. This information should accompany the load and be available to those involved in the loading, transportation and unloading activities.

All loads and load restraint methods should follow the *Waka Kotahi NZ Transport Agency Truck Loading Code*: nzta.govt.nz

Loading and unloading areas should be:

- clear of traffic and workers not directly involved with loading or unloading
- well lit
- on level ground
- segregated from other work areas
- clear of overhead cables, pipes, or other obstructions
- protected from adverse weather where possible.

Where these conditions cannot be met, other control measures need to be considered (such as using temporary barriers if there is no room to unload away from other work site activity).

When loading and unloading is taking place:

- one person should be in control of the loading zone (for example, the person operating the forklift, the stock room manager, site foreman, or spotter). Everybody involved in the loading or unloading activity should know who this person is before the activity starts.
- there should be clear operating procedures that are understood and always followed
- there should be a system in place to warn other vehicle drivers and workers that loading and unloading is in progress
- only workers directly involved with loading or unloading should be in the area
- warning devices such as lights, alarms, horns, cones and signage should be used.

You should have systems in place to stop vehicles from inadvertently moving or being driven off during loading and unloading. For example:

- wheel chocks
- air brake isolation interlock devices
- vehicle or trailer restraints
- traffic lights on loading bays
- dock locks.

Keys should be removed from the vehicle ignition and kept in a safe place (except for trucks that need the engine running for integrated cranes to operate).

5.6 Driver waiting areas

There should be a safe place where drivers can wait throughout loading and unloading (see Figure 15). This location should:

- be far enough away to keep them safe
- be in a position where the driver can still see the loading or unloading of their vehicle
- be where the worker doing the loading can see them
- provide shelter from the weather and a place to sit.

Ideally drivers should also have access to facilities such as toilets and somewhere to prepare a hot drink (accessed before or after loading or unloading).

There should be a clear system in place that tells drivers and all those involved with loading and unloading when it is safe for the driver to approach the vehicle, check the load, and drive away.

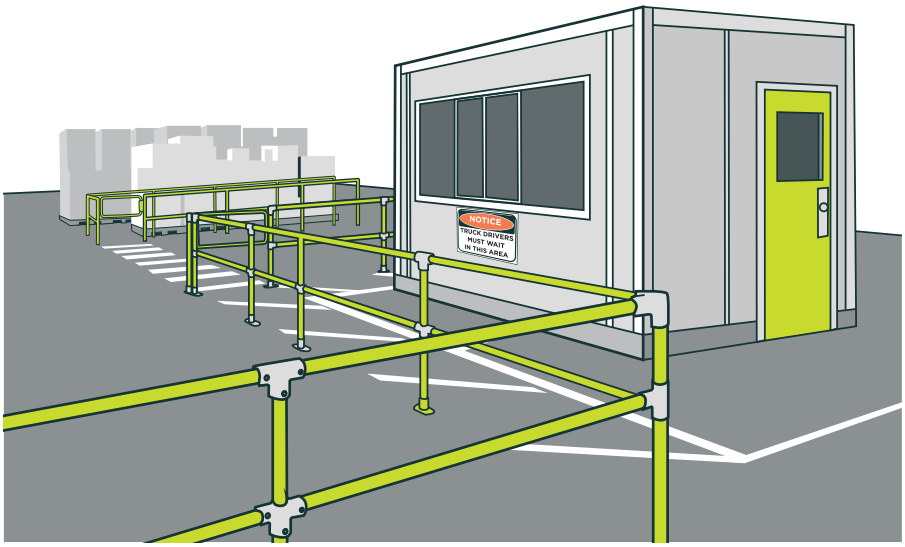


FIGURE 15:
Example of driver waiting area

5.7 Loading and unloading shipping containers

Shipping containers should be placed in a location where they do not create dangers for those loading or unloading them, or for workers carrying out other activities at the same work site:

- the proposed location should be on level ground with enough room to open the doors and provide safe access
- the proposed location should have enough space to operate vehicles in and around the shipping container and to set down loads outside of the shipping container
- the proposed area should be well lit.

Temporary barriers should be used to make sure only those involved in the loading or unloading of the shipping container can access the area.

5.8 Tipping

Tipping should be carried out on level ground. Check there are no overhead obstacles, such as power lines. Make sure there are no unnecessary bystanders. Use temporary barriers and spotters if needed.

5.9 Tarping/load securing

Tarping and other forms of load securing can require working at height and manual handling of heavy equipment.

To eliminate the risks associated with working at height and manual handling, automated tarping devices are recommended.

Consider installing access platforms with barriers to stop falls where tarping must be done manually, or where the top of a load needs to be accessed for other reasons (see Figure 16).

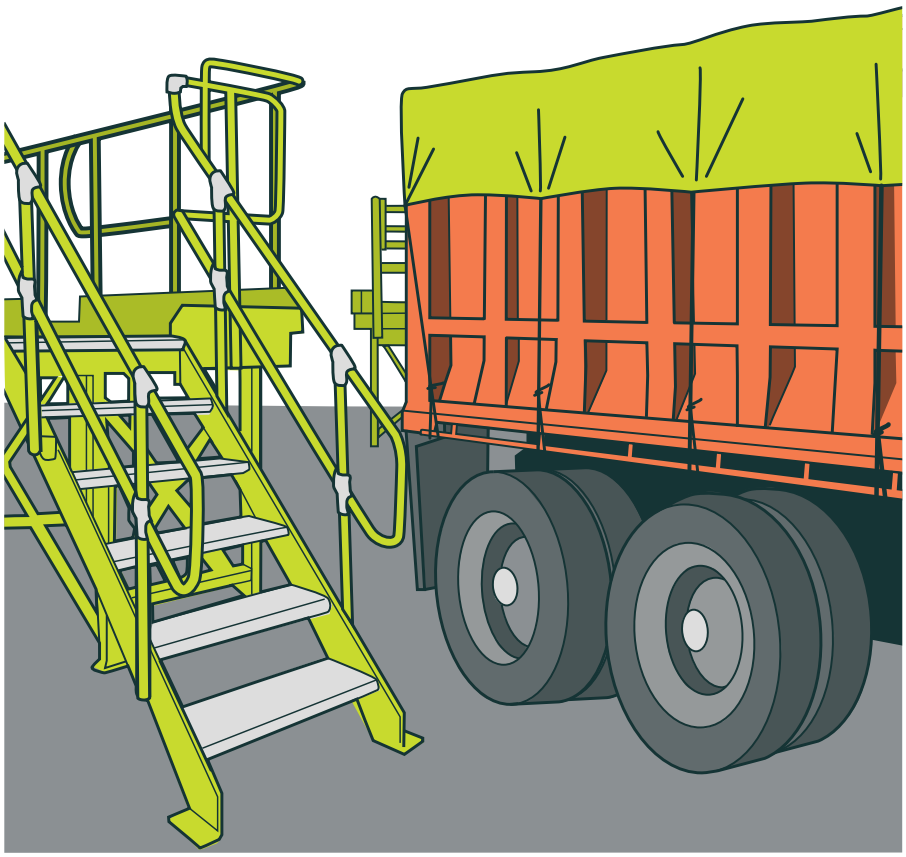


FIGURE 16:
Tarping access platform

5.10 Queuing vehicles

At busy work sites you may have several vehicles operating or arriving on site at the same time. Having several vehicles operating on site at the same time increases the chances of incidents happening.

To help manage the risks of queuing vehicles, you should:

- consider a queuing time slot system – use a gatehouse to control traffic time slots
- consider setting up separate areas for tarping, load securing, load splitting, maintenance and clean down to help reduce hold ups
- make sure there is enough space between queuing vehicles, so they do not impact on other traffic or block emergency exits
- make sure there is a safe system for communicating with drivers (such as telling them the expected wait times)
- make sure there is a safe access route for drivers if they need to exit their vehicle to access facilities or driver safe areas while waiting
- make sure queued vehicles are not parked over footpaths or blocking public roads
- consider the impacts of idling vehicles – make sure there is good ventilation to remove fumes and particulates, or have waiting vehicles turn their engines off if possible.

6.0
Safe vehicles

IN THIS SECTION:

6.1 Use the right vehicle for the job

6.2 Keep drivers safe

6.3 Seatbelts

6.4 Increase visibility

6.5 Consider technological safety controls

6.6 Keep vehicles well maintained

Using the right vehicle for the job, with up-to-date safety features, can help reduce the risk to drivers and other people nearby.

6.1 Use the right vehicle for the job

Vehicles used at work sites should be suitable for the purpose for which they are used. Using a vehicle for a task that it is not suited for can create risks for the driver and other people at the work site.

When choosing the right vehicle for a job, consider the following things:

- What will the vehicle be doing?
- Is the vehicle designed for the purpose you want to use it for?
- Can the vehicle handle the required weight/load that you want it to carry? For more information to check manufacturer issued limits, Waka Kotahi NZ Transport Agency's Axle weights calculator: nzta.govt.nz and vehicle dimensions and mass: nzta.govt.nz
- What environment will the vehicle be used in? For example, is the vehicle suitable for working in wet conditions or working on uneven surfaces?[1]
- Will the worker operating the vehicle be trained and competent enough to use it safely for that task?
- Is the vehicle currently certified and/or warranted? All work site vehicles must meet relevant standards and required registrations.
- If the vehicle is being used for many uses, is it suited to those uses?
- Will the vehicle be used in an enclosed area? If so, consider what emissions the vehicle produces. For example, diesel/LPG/petrol powered forklifts should not be used in enclosed areas. For more information on forklifts and carbon monoxide, see our website: worksafe.govt.nz

[1] Vehicles such as forklifts should only be used on sloping ground if the manufacturer specifies they are able to do so.

6.2 Keep drivers safe

Work site vehicles should be fitted with the following safety features (where appropriate):

- seat belts
- operator protective structure (OPS)
- protection from the weather or extreme environments (for example, air-conditioned cabs for work in the summer or heated cabs for work in cool stores)
- air filtration system (especially if driver could be exposed to fumes or particulates.
- guards on all dangerous parts of the vehicle (for example, chain drives or exposed hot exhaust pipes)
- emergency stops (where relevant).

6.3 Seatbelts

Drivers should always use seatbelts unless there is a specific exception allowed (such as for quad bikes and motorbikes).

For more information about seatbelt use on vehicles and mobile plant, see our website: worksafe.govt.nz

6.4 Increase visibility

Driver visibility

Drivers should have good visibility when operating a vehicle.

Blind spots can occur, especially when reversing, or carrying a large load. You should consider adding features to the vehicle to eliminate blinds spots and help drivers to navigate safely when visibility is limited. For example:

- audible alarms when vehicles are moving/reversing
- reversing cameras with lines to indicate distance
- extra lighting (especially if the vehicle is operating at night) extra mirrors
- proximity warning devices (see Section 6.5 Consider technological safety controls).

Check any additions do not compromise the integrity of the OPS (if present). You may need to have the OPS re-certified if additions or alterations are made.

Pedestrian visibility

You should consider adding the following features to vehicles (if they are not already present) to help pedestrians notice and avoid moving vehicles:

- lights
- reflectors
- flashing or rotating beacons
- a horn
- personal proximity sensors (see Section 6.5 Consider technological safety controls).

6.5 Consider technological safety controls

Elimination and engineering control measures are considered the most effective control measures. However, technological safety control measures can also contribute to making a work site safer by helping drivers avoid incidents. For example:

- laser projected floor lines showing pedestrians how far away they should be from the vehicle when it is moving (see Figure 17)
- lane departure warning devices
- reversing radar that alerts the driver when they are coming close to people or objects within a defined area when reversing
- proximity warning devices such as:
  - vehicle proximity warning devices that alert the driver when they are coming within a specified range of objects, other vehicles, or people
  - personal proximity warning devices that alert the driver and pedestrians (who are wearing a detectable tag) that they are within a specified range of each other.

Some proximity warning systems can automatically limit a vehicle's speed or prevent operation of the vehicle when certain conditions are detected (such as proximity to people, pedestrian crossings, specified work zones, or other vehicles). In these cases they can be considered an engineering control.

Some technological safety control measures can also monitor and provide data on the vehicle's movements, including near misses. This data could be used when reviewing control measures and when identifying high risk areas or drivers.

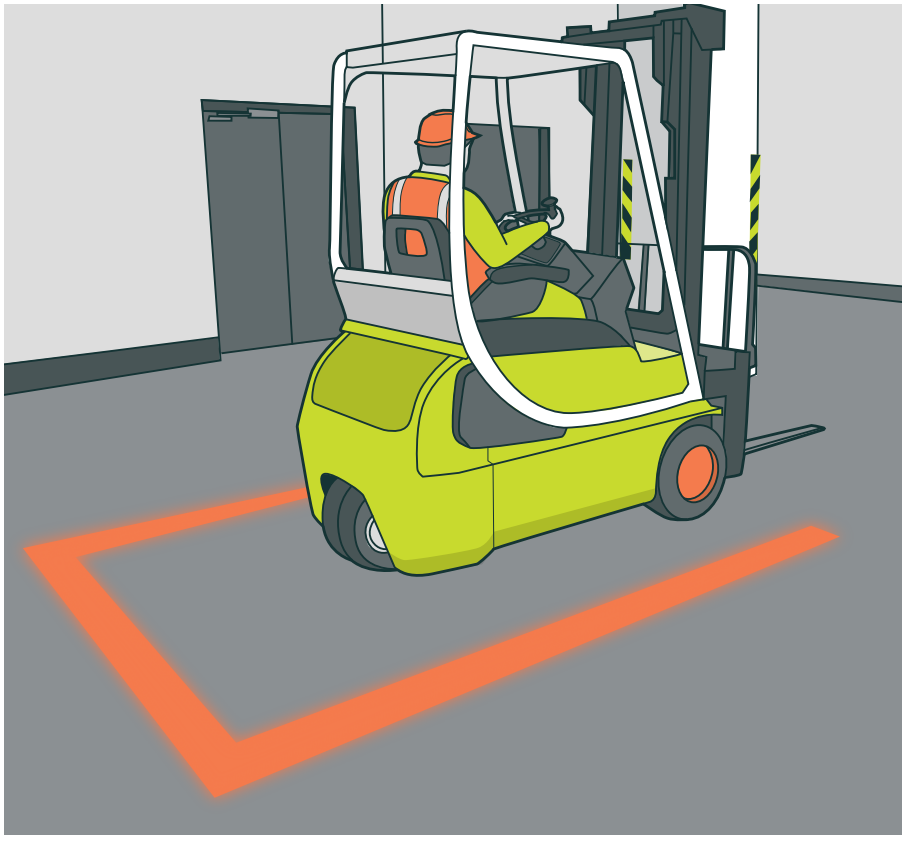


FIGURE 17: Forklift with projected laser light

When purchasing new vehicles, you should consider what new technology has become available that could add to your existing control measures. You should also consider whether it is reasonably practicable to retrofit new safety technology to your existing work site vehicles.

6.6 Keep vehicles well maintained

All vehicles should be kept in good working order. Vehicles should be maintained according to manufacturer recommendations and/or time or mileage guidelines. Vehicles used in more extreme conditions than normal may need to be checked more often.

Drivers should visually check their vehicle at the beginning of every shift before using the vehicle. You should provide drivers with a checklist to guide them on what to look for. When using checklists you should:

- make sure drivers have enough time to complete their vehicle check
- keep the checklist as simple as possible
- include a system for reporting problems and making sure they are dealt with and closed off.
  - make sure vehicles that fail their daily check are taken out of service and not allowed to be used until the problem is fixed (see Figure 18).
- include a section for additional observations.

It is ultimately the responsibility of the PCBU to make sure vehicles are in good working order. You should monitor vehicle checklists to make sure the checks are carried out properly and that identified issues are dealt with.

Poorly maintained vehicles can also create health risks for drivers, such as whole body vibration from poor suspension, or fumes exposure from clogged up vents.

FIGURE 18: Example of a vehicle that cannot be used until it has been fixed

7.0
Safe people

IN THIS SECTION:

7.1 Use competent drivers

7.2 Provide training and certifications

7.3 Keep evidence of training and certifications

7.4 Provide personal protective equipment (PPE)

7.5 Keep visitors safe

7.6 Keep customers safe near work site traffic

7.7 Promote work health and safety

Everyone at a work site should have the knowledge and skill to do their job safely, including knowing how to keep themselves and others safe when working in and around vehicles.

7.1 Use competent drivers

Work site vehicles should only be driven by workers who are competent in the safe use of that vehicle.

Drivers should have the relevant skills, experience and certifications for the specific vehicle and work site conditions they are operating in.

A competent driver is someone that:

- has had sufficient training and supervision on the operation of the vehicle. This includes:
  - the practical mechanics of operating the vehicle, and
  - the knowledge of how to operate it in a safe way for themselves, the environment and the people around them
- has the required licences and certifications to safely operate the vehicle
- has the right level of fitness and general abilities to operate the vehicle
- is physically well enough on the day to operate the vehicle safely – for example:
  - not suffering from fatigue. For more information on fatigue, see our website: worksafe.govt.nz
  - not under the influence of medication or another substance that could impair their ability. For more information on impairment, see our website: worksafe.govt.nz

It is particularly important that new or less experienced drivers are closely monitored following their training to make sure they work safely.

Drivers should not carry passengers unless the vehicle is designed to do so, and the passengers have the same level of protection as the driver (such as working seatbelts).

7.2 Provide training and certifications

Training requirements will depend on the worker's experience and the training they have previously received. Consider these factors when deciding the level and amount of training a worker needs.

When considering training needs for a worker, you should not only consider what vehicle type training they have received, but also if they may need training for working safely in certain environments. For example, a worker may have training and experience in operating a digger at a work site where the digger is the only vehicle present, but have no experience or training on operating a digger on a busy construction site with many other vehicles present.

Make sure all workers are competent before starting unsupervised work. They should be monitored on-site to establish their actual level of competence and any extra training needs (regardless of what licences or certifications they may hold).

Existing workers should continue to have training, such as:

- when the work changes and the task needs to be done differently
- when new vehicles or new features are introduced
- refresher training (when the need is identified).

Training should be provided by a competent person. Simulator training (if available) should also be considered.

7.3 Keep evidence of training and certifications

For each driver, keep records of all completed training and certifications and licences that they hold. Records should also include when refresher training or recertification is due. This will help make sure the right worker is allocated a particular task and identify workers who need refresher training.

7.4 Provide personal protective equipment (PPE)

PPE is generally considered the last resort when protecting workers from harm. PPE should be used if there is still risk remaining after all other reasonably practicable control measures have been put in place.

On a work site with traffic risks, this is most likely going to mean the use of hi-visibility clothing (for example, reflective vests), sturdy footwear, and possibly personal proximity warning devices.

Beware of the risks that some PPE may create when working in and around vehicle traffic. For example, hearing protection may limit a person's ability to hear approaching vehicles, or tinted eye wear may limit the ability for drivers to make confirmed eye contact with pedestrians. You may need to consider alternative control measures to manage these risks.

Any PPE, including high visibility clothing, must meet basic PPE requirements for fit, function and performance. Workers must receive training on how to wear, use and store their PPE correctly. For more information on personal protective equipment – a guide for businesses, see our website: worksafe.govt.nz

Safety gloves | Protective boots | Hi-vis clothes | Protective helmet

FIGURE 19:
Examples of PPE

7.5 Keep visitors safe

You should have specific car parks set aside for visitors. Upon arrival visitors should report to the reception area, site office, or site manager. They should be given information on the safety procedures and expectations for the work site. A pre-prepared visitor work site induction is useful for this. For more information, see Section 8: Work site induction and traffic management plans

This may include providing visitors with PPE.

7.6 Keep customers safe near work site traffic

PCBUs must make sure that the health and safety of other people is not put at risk from their work or from anything else at the work site (so far as is reasonably practicable). Customers are considered 'other people at a workplace'. In a retail situation, this means doing what is reasonably practicable to keep your customers safe when they are at your business.

Where work site vehicles are in operation near customers, you should consider:

- creating a safe zone for customers
  - this can be done with barriers, signage and a store layout that keeps customers away from high traffic areas unless they have a specific purpose to be there
- installing clear signs and markings that show where customers should or should not park vehicles when they arrive at your work site
- where relevant, a policy of asking customers to stay in their vehicles until loading or unloading is complete
- making sure children are not permitted into high traffic areas. For example, in a building supplies yard, children should always remain inside vehicles.

Provide training for your workers to help them communicate with customers about where they need to be when vehicles are operating on site.

7.7 Promote work health and safety

You should promote a work environment that prioritises health and safety and worker well-being. This can help boost worker morale and encourage workers to follow safe work practices. This will reduce the likelihood of workers taking shortcuts and putting themselves and others at risk.

Some steps towards creating health and safety-focused work environment include:

- getting workers, contractors and their representatives actively involved in decision-making around health and safety. For more information see Appendix C: Worker engagement and participation
- encouraging workers to look out for each other as well as themselves
- promoting open and honest communication between workers and management
- encouraging everyone to report incidents, hazards and near-misses
- making sure incidents and hazards are investigated, and improvements are made where the opportunity or need is identified.

8.0 Work site induction and traffic management plans

IN THIS SECTION:

8.1 Work site inductions

8.2 Traffic management plans

8.3 Traffic management committees

Creating work site inductions and traffic management plans in consultation with other PCBUs and your workers is a useful way to manage shared risks.

8.1 Work site inductions

Work site inductions are one way to make sure new workers and visitors entering a work site know and understand the requirements and expectations for that work site.

Work site inductions are usually overseen by the site manager or a designated representative.

Work site inductions should include site-specific requirements for:

- entering and exiting the work site
- speed limits
- work site layout – including:
  - vehicle and pedestrian routes
  - vehicle parking
  - delivery areas
- schedules for loading and unloading
- safe practices for loading and unloading
- safe vehicle turning and reversing practices
- locations of facilities, including first aid
- emergency procedures/evacuation procedures/location of assembly points (which should be located away from traffic areas)
- a list of known hazards at the work site and the control measures for managing the risks they create
- how to report an incident or hazard
- PPE
- safety documents, policies and plans specific to the work site such as a traffic management plan.

Work site requirements that follow industry-wide standards and conventions can make it easier for workers (such as delivery drivers) who visit many work sites in a day to remember and follow work site requirements. For example, use the same colour codes for loading zones or pedestrian zones.

When writing a work site induction document, workers and other PCBUs that regularly visit the work site should be consulted. You should also aim to:

- keep it as brief as possible
- use familiar, straightforward language
- use drawings, diagrams and pictograms where possible (pictures can sometimes convey the message much more effectively than words)
- consider the range of literacy, numeracy, and language skills of workers that may need to read and understand it
- consider the range of skills, knowledge and experience of new workers and visitors to the work site (avoid using jargon or acronyms without explaining what they mean)
- consider providing your work site induction documents in other languages
- consider including a work site walkthrough (keeping to safe areas) to show the work site layout (rather than relying on people translating maps and diagrams).

All PCBUs on site should be fully aware of their roles and responsibilities before any activity is started. A work site induction should be completed for every new worker or visitor to a work site.

In addition, the site manager (or designated representative) should:

- review the induction document regularly. Reviews should include considering any feedback from workers
- monitor all workers on site to make sure they are working safely and following the work site requirements
- investigate incidents and near misses to identify their causes and what needs to change to stop them from happening again
- consider how to check for understanding of the information. This may as simple as asking some open-ended questions about key points from the induction information.

8.2 Traffic management plans

Work sites that have a lot of traffic activity or pedestrian interaction should have a traffic management plan. Traffic management plans help communicate how traffic risks will be managed in greater detail.

A traffic management plan should include details of:

- the desired flow of pedestrian and vehicle movements
- rules for when and how drivers are to give way or stop for pedestrians or other vehicles
- the expected frequency of interaction between vehicles and pedestrians
- diagrams of the layout of barriers, speed bumps, speed limits, walkways, signs and general arrangements to warn and guide traffic around, past, or through a work site
- how short term, mobile work and complex traffic situations will be managed
- any restrictions or considerations due to other regulatory requirements (such as noise restrictions or traffic volume restrictions).

A traffic management plan could also include details of:

- the roles and responsibilities of workers managing traffic at the work site
- the roles and responsibilities of workers who work in or near vehicles at the work site
- the procedures for controlling traffic during an emergency.

Workers should be familiar with the traffic management plan. They should be provided information, instruction and training on how to apply the traffic management plan when working as part of their overall induction.

Traffic management plans should be regularly monitored and reviewed to make sure they remain effective and take into consideration any changes at the work site. They should always be reviewed after an incident (including near-misses). Any changes to a traffic management plan should be communicated to workers as soon as possible.

A traffic management consultant (such as a traffic planner or traffic engineer) may be able to provide you with advice for creating a traffic management plan that suits the specific needs of your work site, vehicles, and work site activity.

8.3 Traffic management committees

Work sites with more than one PCBU working on site should consider having a traffic management committee. Traffic management committees should be made up of representatives from all PCBUs involved at the work site (where possible), Health and Safety Representatives, driver representatives, supervisors and any other group sharing the traffic routes and vehicle working areas. Participating in traffic management committees is one way PCBUs can work together to manage their overlapping duties for work site traffic risks.

Traffic management committees can carry out the monitoring and review of the traffic management plan.

9.0
More information

WorkSafe guidance

Website

Overlapping duties

Worker engagement and participation

Hazardous substances

Mining and quarrying

Forestry

Fatigue

Impairment

Personal protective equipment: A guide for businesses

Worker representation through Health and Safety Representatives and Health and Safety Committees

Fact sheets

Reasonably practicable

Forklifts and carbon monoxide

Quick guides

Health and safety at work

Identifying, assessing and managing work risks

Safe reversing and spotting practices

Seatbelts – a guide for businesses

What events need to be notified

Good practice guides

Health and safety by design: an introduction

Worker engagement, participation and representation

ACOPs

Training operators and instructors of powered industrial lift trucks

Interpretive guidelines

General risk and workplace management Part 1

Special guides

Introduction to the Health and Safety at Work Act

Other

Worker representation

Health and Safety Committees

Health and Safety Representatives

Legislation

Meaning of PCBU section 17 of HSWA

Reasonably practicable section 22 of HSWA

Primary duty of care section 36 of HSWA

Duty to engage with workers section 58 of HSWA

New Zealand Legislation

Standards

Standards New Zealand Safety signs for the occupational environment

Waka Kotahi NZ Transport Agency

Code of Practice for Temporary Traffic Management

Truck Loading Code

Axle weights calculator

Vehicle dimensions and mass

Appendices

IN THIS SECTION:

Appendix A: Glossary

Appendix B: The Health and Safety at Work Act 2015 (HSWA)

Appendix C: Worker engagement and participation

Appendix A: Glossary

TERM	DEFINITION
Competent person	A competent person is someone who has the appropriate skills, training, knowledge, and experience to perform the task or role.
Control measure	A way of eliminating or minimising risks to health and safety.
CoPTTM	Code of Practice for Temporary Traffic Management. Requirements for managing traffic while undertaking work on public roads. Administered by Waka Kotahi NZ Transport Agency
Dynamic work site	A work site where the layout may change from time to time.
Exclusion zone	An area set aside for a specific activity, where only authorised workers can operate, for example a forklift operating zone.
Fatigue	A physiological state where someone is unable to mentally and physically function as they usually would. This is caused by four main factors: – missing out on sleep – being awake for too long – working and sleeping in the wrong parts of the body clock cycle – workload (mental and physical).
Hazard	A potential source of harm. It could include an object, situation or behaviour.
HSWA	Health and Safety at Work Act 2015. The key work health and safety legislation in New Zealand. HSWA applies to all work and workplaces unless specifically excluded. You can find the full text of the Act on the New Zealand Legislation website: www.legislation.govt.nz
Interlocked gate	A gate that uses technology to remain locked until it is safe for a pedestrian to cross (when there are no approaching vehicles detected).
Mobile plant	Mobile plant is plant that is powered or self-propelled, such as vehicles and equipment. Examples include bulldozers, mobile cranes, forklifts, elevating work platforms and tractors.
OPS	Operator Protective Structure. A structure attached to, or part of, mobile plant. Designed to protect the operator from being harmed. There are many specific types of OPS, for example: – roll over protective structure (ROPS) – falling object protective structure (FOPS) – crush protection device (CPD) – side impact protection system (SIPS) – tip over protective structure (TOPS).
Overlapping duties	When a PCBU shares duties with other PCBUs. When two or more PCBUs are working together at the same location or through a contracting chain, they must work together to fulfil their duties of care and manage risks. Where those duties overlap, the PCBUs must consult, cooperate and coordinate with each other to meet their health and safety responsibilities to workers and others.
PCBU	Person conducting a business or undertaking. In most cases a PCBU will be a business entity, such as a company. However, an individual carrying out business as a sole trader or self-employed person is also a PCBU. A PCBU does not include workers or officers of a PCBU, volunteer associations with no employees, or home occupiers that employ or engage a tradesperson to carry out residential work. See section 17 or HSWA
Pedestrian	A person travelling on foot (not on or inside a vehicle).
Personal proximity warning device	A system where site vehicles are fitted with a device and pedestrians wear a device that can detect when the two are within a specified distance of each other. The system can send a warning to the driver and/or the pedestrian that they are in close proximity to each other.

TERM	DEFINITION
PPE	Personal protective equipment. Anything used or worn by a person (including clothing) to minimise risks to the person's health and safety. This may include – but is not limited to: – respiratory protective equipment – protective helmets – protective eyewear – protective boots – protective gloves – hearing protection – high-vis clothing – sunhats – sunscreen and lip protection – safety harness systems.
Primary duty of care	A PCBU must ensure, so far as is reasonably practicable, the health and safety of workers, and that other persons are not put at risk by its work. This is called the 'primary duty of care'.
Reasonably practicable	What is or was reasonably able to be done to ensure health and safety taking into account and weighing up relevant matters including: – the likelihood of the risk concerned occurring or workers being exposed to the hazard – the degree of harm that might result – what the person concerned knows, or ought reasonably to know, about: - the hazard or risk - ways of eliminating or minimising the risk - the availability and suitability of ways to eliminate or minimise the risk – after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk. For more information see our fact sheet *Reasonably practicable* on our website: worksafe.govt.nz
Risk	Risks arise from people being exposed to a hazard (a source of harm).
Signaller/signalling	Another term used to describe spotter/spotting.
Spotter/spotting	Person who helps drivers/operators when manoeuvring vehicles or mobile plant at a work site. Often used when visibility is limited or there are other hazards present.
Static work site	A work site where the layout generally stays the same.
TMP	Traffic management plan. A plan that documents how managing traffic risks are being managed at a work site.
Vehicle proximity warning device	Technology used on a vehicle to warn the driver of the vehicles proximity to other vehicles, objects, or pedestrians.
Worker	An individual who carries out work in any capacity for a PCBU. A worker may be: – an employee – a contractor or sub-contractor – an employee of a contractor or sub-contractor – an employee of a labour hire company – an outworker (including a homeworker) – an apprentice or a trainee, a person gaining work experience or on a work trial – a volunteer worker. Workers can be at any level (for example, managers are workers too). PCBU is also a worker if the PCBU is an individual who carries out work in that business or undertaking.
Work site induction	Information, training and instruction provided to workers and visitors to a work site. Inductions should include basic health and safety requirements (including highlighting the key risks on site) and what to do in an emergency.

Appendix B: The Health and Safety at Work Act 2015 (HSWA)

The most relevant HSWA duties related to work site traffic management are outlined in the table below:

DUTY	DESCRIPTION OF DUTY
Primary duty of care	PCBUs, have a duty to make sure that the health and safety of their workers, contractors, visitors, and members of the public are not put at risk as a result of the work they do. This includes a duty to keep people safe around vehicles and mobile plant at work sites. Workers also have a duty to look after their own health and safety and that of anyone who might be affected by their work.
Duty of PCBU who manages or controls workplace	PCBUs that manage or control a work site must make sure, so far as is reasonably practicable, that the work site, how people enter and exit the work site, and anything else that may arise from the work site are without health and safety risks to people.
Duty of PCBU who manages or controls fixtures, fittings or plant at workplaces	PCBUs that manage or control fixtures, fittings or plant at a work site must, so far as is reasonably practicable, make sure that these fixtures, fittings or plant don't create health and safety risks. This could include consideration of the potential health effects from using the plant (for example, the long-term exposure to exhaust fumes from a forklift).
Duties of other persons at workplace	Other persons at a workplace must take reasonable care for their own health and safety and take reasonable care not to adversely affect other people's health and safety. Other persons at the workplace must comply, so far as they are reasonably able, with reasonable instructions relating to health and safety.
Working with other PCBUs (overlapping duties)	If there is more than one PCBU operating at a work site, they will likely both have health and safety duties for the same risks. This is known as overlapping duties. The PCBUs must consult with each other to find out who is doing what and work together to manage shared risks on site.
Duty to engage with workers	PCBUs must engage and consult with workers on work health and safety matters, so far as is reasonably practicable. This includes when identifying, managing and monitoring risks related to working in and around vehicles and mobile plant at work sites. For more information, see Appendix C: Worker engagement and participation

What does reasonably practicable mean?

Health and safety duties need to be managed so far as is reasonably practicable. There are two parts to 'reasonably practicable'. First consider what is possible in your circumstances to ensure health and safety. Then consider, of these possible actions, what is reasonable to do in your circumstances.

When deciding what is 'reasonably practicable', consider:

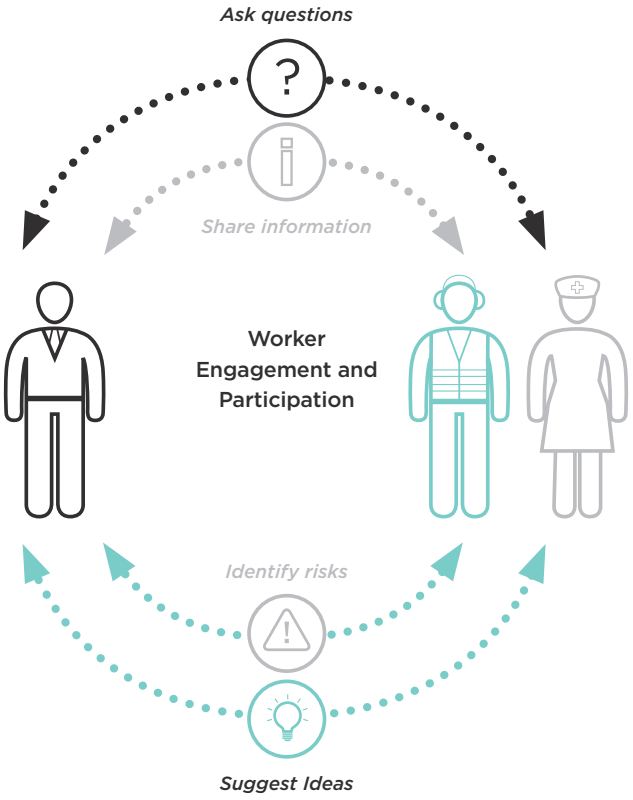
- How likely is the risk and how severe is the illness or injury that might result?
- What do you know, or what you ought reasonably to know, about the hazard or risk and the ways of eliminating or minimising the risk?
- What is the availability of the control measures, and how suitable are they for the specific risk?
- As a final step, what are the costs of the control measure and are the costs grossly disproportionate to the risk?

For more information on *Reasonably practicable,* see our website: worksafe.govt.nz

Appendix C: Worker engagement, participation and representation

PCBUs have two duties under HSWA related to worker engagement and participation:

- to engage with workers on health and safety matters that affect or are likely to affect them, so far as is reasonably practicable; and
- to have practices that give workers reasonable opportunities to participate effectively in the ongoing improvement of work health and safety.



Engage with your workers about the risks of working around vehicles

You must engage and consult with your workers on work health and safety matters, so far as is reasonably practicable. This includes when **identifying**, **controlling** and **monitoring** risks related to working near vehicles, as outlined in this guide.

You can engage with workers by:

- sharing information about the dangers of working around vehicles so that workers are well-informed, know what is going on and can contribute to decision-making
- giving workers reasonable opportunities to have a say about health and safety matters
- listening to and considering what workers have to say at each step of the risk management process for working around vehicles
- considering workers' views when decisions are being made
- updating workers about what decisions have been made.

If workers are represented by a Health and Safety Representative (HSR), engagement must also involve that representative.

Health and Safety Representatives and Health and Safety Committees

Health and Safety Representatives (HSRs) and Health and Safety Committees (HSCs) are two well-established methods of participation and representation.

For more information see:

WorkSafe's interpretive guidelines *Worker representation through Health and Safety Representatives and Health and Safety Committees:* worksafe.govt.nz

WorkSafe's good practice guidelines *Worker engagement, participation and representation*: worksafe.govt.nz

WorkSafe pamphlets

Worker representation

Health and Safety Committees

Health and Safety Representatives

Disclaimer

This publication provides general guidance. It is not possible for WorkSafe to address every situation that could occur in every workplace. This means that you will need to think about this guidance and how to apply it to your particular circumstances.

WorkSafe regularly reviews and revises guidance to ensure that it is up-to-date. If you are reading a printed copy of this guidance, please check worksafe.govt.nz to confirm that your copy is the current version.

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