DRAFT CODE OF PRACTICE FOR BUILDING, CONSTRUCTION AND WORKS

CITY OF MELBOURNE

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Acknowledgement of Traditional Owners

The City of Melbourne respectfully acknowledges the Traditional Owners of the land, the Wurundjeri Woi Wurrung and Bunurong Boon Wurrung peoples of the Eastern Kulin and pays respect to their Elders past, present and emerging. We are committed to our reconciliation journey, because at its heart, reconciliation is about strengthening relationships between Aboriginal and non-Aboriginal peoples, for the benefit of all Victorians.

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Message from the City of Melbourne

Draft Code of Practice
for Building, Construction and Works

Cities evolve and it's important that we adapt and respond to protect the safety and amenity of our community. The City of Melbourne's Code of Practice for Building, Construction and Works regulates the conduct of all works that affect public space.

It's our role to guide project planning and implementation to ensure that the community is not unreasonably affected. The construction industry plays an integral role in a modern, functional and liveable city, and we need to carefully balance the competing demands of works, and the people who move into and around our municipality.

Given that the municipality has changed significantly since the first Code was produced, we've undertaken an extensive review.

This draft amendment puts all our comprehensive requirements into our customers' hands, in one place, in plain language – to enable better planning, applications, approvals and compliance.

In amending the Code, we'll also connect to our broader program of delivering digital services where possible.

The updated Code will make it easier to do business with the City of Melbourne by:

- removing red tape
- reducing approval times
- automating permits in some cases.

The updated Code expands our guidance on hoardings, gantries, scaffolds, cranes, excavation, skips, rubbish chutes, vehicle crossings and nuisance abatement.

It also clarifies additional requirements for mobile plant, hoists, traffic management, asset protection and reinstatement, access and accessibility, tree protection, worksite amenity and the installation of public precautions (temporary structures).

Under the updated Code, detailed applications can be considered and approved more quickly – all of which benefits our construction sector and the wider community.

Sally Capp
Lord Mayor

Cr Nicholas Reece
City Planning Portfolio Chair

1. Introduction

The Code of Practice for Building, Construction and Works (the Code) – as referenced in our Melbourne City Council Activities Local Law 2019 – regulates the conduct of all works that affect public space, ensuring the safety and amenity of our community and the protection of municipal assets.

The construction industry plays an integral role in our city being modern, functional and liveable. However, we need to carefully balance the competing demands of works and people. Each weekday more than 900,000 people – residents, workers and visitors – move into and around our municipality, with 290,000 converging on central city rail stations. The municipality is also home to 180,000 residents, all entitled to rest and respite within their homes.

We are committed to providing our growing, diverse population with a city great for walking and for cycling, with abundant, quality public space. The goals of our Future Melbourne 2026 Plan and Transport Strategy 2030 require a public realm that is safe, accessible, convenient, inclusive and engaging.

This Code sets out our expectations when using public space for any kind of building, construction and general works – guiding project planning and implementation to streamline the approval of suitable activities and ensure that the community is not unreasonably affected.

1.1 Purpose

The requirements in the Code are intended to protect the public and municipal property around sites where works are occurring. Safety and amenity are our primary focus in regulating the use of public space around worksites, and the Code provides clear guidelines to be consistently applied across the municipality of Melbourne.

All our requirements for public safety and amenity are presented here to:

- assist applicants to compile quality permit applications that can be assessed faster, without us having to request further information
- ensure those undertaking works in and around public space understand our requirements and their obligations.

Precautions must be taken to minimise the danger, risk and disruption posed by construction activity, especially where works are occurring adjacent to public areas, require the occupation of public spaces (such as footpaths or roads) or will have an impact on local traffic conditions.

1.2 Objectives

Our objectives for all building, construction and works are to ensure:

- the public are adequately protected from risks associated with any works activity
- adverse impacts to health, safety, amenity and the environment are avoided
- time- and space-efficient occupation where the use of public space is necessary to facilitate works activity
- public disruption is minimised and all activities occurring in public space are appropriately managed
- safe, accessible and convenient movement is maintained past worksites for all road users
- municipal assets are adequately protected and appropriately reinstated as required

1.3 Approvals process overview

An indicative view of the approvals process for building, construction and works – through phases of project planning, works activity and completion – is provided in Table 1.1 (p.9) and Table 1.2 (p.10).

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Table 1.1 - Approvals process overview: Pre-construction phase†

Step	1. Obtain a town planning permit	2. Consult with stakeholders	3. Prepare a CTIA	4. Prepare and obtain approval of your CMP	5. Obtain approvals from third parties	6. Obtain report and consent	7. Obtain a building permit and pay asset protection levy	8. Provide security
I want to	Use or develop private land Install or modify a permanent vehicle crossing in an arterial road, or in a heritage area (see 23.2.6)	Undertake long-term works (involving activity in public space lasting for more than 4 weeks), or works that could disrupt access to any property, business or service for any period of time (see 6)	Plan the implementation of short- and long-term traffic management strategies to facilitate my building or works project (see 15)	Get CMP approval as required by my Planning Permit, or because my planned project meets a Construction Management Plan condition (see 4.4).	Carry out works that may impact and require approval from others, such as: * road authorities * public transport providers * utilities * adjacent property owners	Report to City of Melbourne that my building works will require public precautions, and obtain consent to install precautions (see 2.3)	Undertake building works	Provide security in the event that activity related to my work causes any damage to public assets (see 10.4.2)
I will need to	Prepare and submit a Town Planning permit application	* Identify stakeholders (see 6.3) * Prepare, send and record stakeholder communications * Consult with stakeholders * Collate feedback * Develop impact and concern mitigation strategies	Engage a traffic consultant and prepare a CTIA (Construction Traffic Impact Assessment, see 15.10.1)	Submit: * CMP (see 4) * CTIA (see 15.10.1) * Documentation of stakeholder requirements and impact mitigation measures from any consultation process (see 6.5)	Document approvals from third parties (such as authorities and agencies), as required (see 7)	Obtain a statement of Building Surveyor consent Prepare and submit a report and consent form for Building Reg. 116 (Protection of the public) Refer to an approved CTIA (for long-term works traffic impact)	Obtain Building Permit from appointed Registered Building Surveyor Lodge Building Permit Pay an Asset Protection Levy for works over $10,000 (see 10.4.1)	Lodge a financial deposit (bond) or bank guarantee

† The above table is intended as a guide only. Additional steps may be required depending on the complexity of your project.

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Table 1.2 - Approvals process overview: Works phase and Completion phase†

Step	9. Notify stakeholders	10. Obtain permits for works activities	11. Update stakeholders (as required)	12. Relocate assets in the road (as required)	13. Conduct works	14. Arrange reinstatement	15. Occupancy Permit or Certificate of Final Inspection	16. Return of security
I want to	Notify stakeholders of details of my pending works activity	Get approval for work in or impacting public space (and possibly including road closure), such as: * install a gantry or hoarding (see 16) * set up a Construction Permit Zone (see 15.7.6(b)) * use a mobile crane (see 20) * work out-of-hours (see 13.1)	Update my notification to stakeholders if the scope of my works activity has changed along the way	Make arrangements with Council for them to relocate municipal assets in the road (such as street furniture) to facilitate my works activity	Undertake my permitted works activities, in accordance with the Code of Practice and any specific permit conditions	Reinstate the work area, repairing any damage to public assets that was caused by my works activity (see 10.6)	Vacate my worksite and any associated Construction Permit Zone (see 10.6.1)	Request return of my security, after Council has determined that reinstatement has been satisfactorily completed (see 10.6.2)
I will need to	List stakeholders Prepare, send and record notification communications (see 6.6) Maintain distribution records (such as a map of properties notified, see 6.6.6)	Prepare and submit: * Site plan * Engineering design drawings (as required) * Traffic Management Plan (TMP, see 15.9.1) * Tree Protection Plan (TPP, 11.2.3) as required	Prepare, send and record notification communications (see 6.6) Maintain distribution records (such as a map of properties notified)	Apply to relocate or remove a municipal asset (see 10.4.5) Allow sufficient lead-time for relocation to occur	Implement any Tree Protection Plan (see 11.2.3) Implement my approved TMP (see 15.9.1) Ensure works comply with the Code of Practice, and any permit or third party conditions	Apply for Consent to conduct reinstatement works in the road (as required, see 10.6.2) Reinstate assets in accordance with the Code of Practice and any permit Notify Council that works are complete (including reinstatement)	Submit Occupancy Permit or Certificate of Final Inspection to Council Arrange for Council to inspect the completion of all works in public space	Arrange the completion of any outstanding reinstatement works (as required) Prepare and submit a Return of financial deposit (bond) or bank guarantee form

† The above table is intended as a guide only. Additional steps may be required depending on the complexity of your project.

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2. How this Code works

2.1 Expectations

2.1.1 This Code – originally the Code of Good Practice for Construction Sites adopted by the former Docklands Authority on 22 March 2002 – is an incorporated document for the purposes of our Activities Local Law 2019. It sets out our expectations for ensuring public safety and amenity via:

- mandatory requirements (indicated by 'must' statements)
- recommendations (indicated by 'should' statements).

2.1.2 In this Code:

- "Council", "we" and "us" refers to Melbourne City Council, City of Melbourne (Council's corporate, informal name) or any member of staff who has been delegated power by an Act of parliament or other law (for example, the Local Government Act 1989 (Victoria))
- "you" refers to the person applying for approval, permit or consent. Unless the context indicates otherwise, this person should be the builder, principal contractor or works manager, acting as a delegated representative of the entity name that appears on any application, approval, permit or consent.

2.1.3 When planning your project and works we strongly encourage you to ensure that your plans comply with this Code, bearing in mind that:

(a) you, as the builder, principal contractor or works manager, are expected to manage all project activity (including activities undertaken by sub-contractors) and ensure that works are carried out in accordance with this Code and any conditions of approval, permit or consent issued by us.

(b) only if you have clearly demonstrated construction or site constraints, will we consider alternative designs or proposals that meet the objectives of this Code. In these circumstances, before submitting applications with your proposed alternatives, you should refer to our Objectives (item 1.2 above) and more specific objectives for each temporary protective structure or works activity in the relevant sections.

(c) alternative site-specific designs or proposals will require additional assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

2.1.4 The Code also outlines our requirements for the protection of public property and assets owned or managed by Council. These may be located in municipal roads, parts of arterial roads and other public spaces. While similar principles may apply to the protection of adjoining private property, such protection does not form part of this Code.

2.1.5 The primary purpose of this document is to outline our requirements for the protection of the public. The measures in this Code are not intended for the safety of construction or road workers **and cannot be relied upon for this purpose** – you must **separately consider and comply with** all relevant Occupational Health and Safety legislation and guidance to ensure worker safety.

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2.2 Legal overview

2.2.1 As a municipal council, we have various powers and responsibilities under Acts and Regulations made by the Victorian State Government. This includes the legal power to make local laws to regulate works and activities that protect the safety and amenity of our municipality's public spaces, including:

- minimising the risk of injury to the public
- protecting Council property and infrastructure
- controlling nuisance around building sites
- improving the design quality of temporary protective structures within the municipality.

2.2.2 Local laws made under the Local Government Act 1989 or Local Government Act 2020 are the primary mechanism for us to regulate works and activities. As at the date this amendment to the Code is implemented, our Activities Local Law 2019 requires permits for works and related activities in, on, under, above or adjacent to public land. Requirements of our Activities Local Law 2019 include:

- compliance with any obligation imposed by this Code (Part 7)
- obtaining various permits to allow works activities to take place on roads (Part 6)
- building works not to create nuisance, and to be confined to certain times (Part 9)
- the implementation of restricted and regulated noise levels that do not impact on a person's enjoyment of public space (Part 12).

2.2.3 Provisions of Part 5 of the Road Management Act 2004 require the written Consent for works of the coordinating road authority to conduct work – this includes road works, any form of excavation or the installation of any temporary or permanent items – in, on, under or over a road. We are the coordinating road authority for municipal roads within the municipality of Melbourne.

2.2.4 You must not occupy or carry out any works or activities in public space without the required permit or consent.

2.2.5 You must only carry out the scope and type of works that are approved by an individual permit or consent. Our approval is based on the information you provide in your application and does not cover other works or activities occurring in the same area.

2.2.6 Records of permits and consents issued by us must be kept on site and produced to our authorised officers or a member of Victoria Police on request.

2.2.7 We can conduct inspections or require documentation to determine current compliance with the Code and any conditions of an approval, permit or consent at any time. Subject to meeting Occupational Health and Safety worksite visitor access requirements, you must not obstruct or hinder an authorised officer or delay the provision of requested proof of compliance.

2.2.8 Inappropriate, aggressive or confrontational behaviour (physical, verbal or otherwise) towards our authorised officers, staff or agents by project staff or contractors may result in the suspension or cancellation of permits or approvals related to the use of public space. Where appropriate, this behaviour will also be referred to Victoria Police for investigation.

2.3 Public protection and the 'Report and Consent' process

2.3.1 Before conducting building works that may pose a risk to the public, public property or public space, you are required to take protective measures – known as public precautions. For example, this could include: erecting a hoarding, gantry or scaffold; underpinning the footpath when excavating close to the street alignment; or closing an area of the footpath or road while works are carried out.

2.3.2 Regulation 116 of the Building Regulations 2018 requires the relevant building surveyor to determine whether precautions are required to protect the public. These will be site-specific. The report and consent of the relevant council must be obtained prior to the issue of a building permit where precautions that project over the street alignment (into public space) are required.

2.3.3 You must obtain the report and consent of Council for any public precautions prior to applying for permits to occupy public space with these temporary protective structures. This Code outlines all our requirements for precautions that project over the street alignment (into public space).

2.3.4 If potential risks to the public change as building works progress, so too do your specific obligations to provide adequate precautions. You must keep us up to date with any potential changes to the risk profile of your works. If any variation is proposed to precautions that we have previously approved:

(a) you must submit an amendment to the report and consent; then

(b) you must apply for an amendment to the relevant permit or permits.

2.3.5 For the avoidance of doubt, nothing in this Code is intended to replace the 'report and consent' requirements in regulation 116 (see 2.3.2 above).

2.4 Implementation of this Code amendment

2.4.1 In accordance with our Activities Local Law 2019, permit holders are required to comply with this Code as amended from time to time.

2.4.2 The requirements in this Code apply to all permits issued from [DATE OF IMPLEMENTATION]

2.4.3 In recognising the significant changes to the Code in this amendment, permits issued prior to the date in 2.4.2 above remain subject to the requirements of the 2002 Code and any conditions of those permits. However, in addition to those requirements:

(a) We will work with existing permit holders to arrange the upgrade of their temporary protective structures to comply with a number of key safety requirements that will be retrospectively applied to those permits in line with this Code.

(b) Each existing permit holder will be required to comply with the following requirements in relation to existing permits issued prior to the date in 2.4.2 above:

(i) The installation of handrails to temporary fencing where the feet of the fencing protrude beyond the face of the fencing (complying with 17.5.1(d) and 17.5.1(e)).

(ii) The implementation of additional safety features to gantry structures, including:

- soleplates to be boxed in to prevent tripping hazards (complying with 18.3.4(e))
- colour and reflective tape requirements for various gantry components (complying with 18.3.15(f) and 18.3.15(g))
- gantry columns and soleplates to be painted white to a minimum 2100 mm above the ground surface (inclusive of contrasting reflective tape), complying with 18.3.15(b).

(iii) The implementation of additional safety features to hoarding structures, including:

- the application of reflective contrasting strips on the return sides of hoardings (complying with 17.4.3(c)).

(iv) The implementation of additional safety features to scaffolding structures, including:

- the enclosure of structural elements (such as standards) of the scaffold to minimise trip and catch hazards for pedestrians (complying with 19.3.4(a)).

(c) Failure to comply with these directions may result in you being required to reapply for permits and fully comply with all elements of this Code.

2.4.4 Existing Construction Management Plan approvals.

As at the date in 2.4.2 above, if you have an existing Construction Management Plan (CMP) approval the existing CMP will expire following this date and you will need to submit a new Construction Management Plan via our new online application portal if either:

(a) works have not commenced within 180 days of this date; or

(b) works have been suspended for 180 days or more.

2.4.5 Installed temporary protective structures.

As at the date in 2.4.2 above, if you have a permitted temporary protective structure (TPS) installed:

(a) the TPS remains subject to the 2002 Code and any permit conditions

(b) the TPS must comply with the safety requirements in 2.4.3 above within 90 days of this date

(c) the relevant permit can only be extended if compliance with the safety requirements in 2.4.3 above has been achieved. We may require proof or conduct an inspection to confirm compliance before issuing any permit extension.

2.4.6 Issued permits for temporary protective structures.

As at the date in 2.4.2 above, if you hold a valid permit for a temporary protective structure (TPS) that has not yet been installed:

(i) you must complete installation of the structure within 30 days of this date and ensure that the structure complies with the 2002 Code, any permit conditions and the safety requirements in 2.4.3 above

(ii) if installation is not completed within 30 days of this date, the relevant permit will expire. You must apply for a new permit via our new online application portal.

2.4.7 Issued permits for space occupation.

As at the date in 2.4.2 above, if you hold a valid permit for a space occupation:

(i) the permit remains valid and subject to the 2002 Code and any permit conditions

(ii) no extensions will be available to permits expiring on or after this date. You must apply for a new permit via our new online application portal.

2.4.8 Construction Management Plans submitted for approval

If you have lodged a Construction Management Plan (CMP) before the date in 2.4.2 above:

(a) if approved, we will consider it to be an 'existing CMP approval' and you must comply with the conditions in 2.4.4 above

(b) your CMP will be manually transitioned by us into the new online application portal for management during your project.

2.5 Enforcement of this Code

2.5.1 Penalties apply under our Activities Local Law 2019 for failing to comply with the local law and hence, this Code.

2.5.2 If you fail to comply with this Code, we can:

(a) issue an official warning

(b) issue a Notice to Comply, directing a person to comply with this Code

(c) issue an infringement notice carrying a financial penalty

(d) in the case of a continuing failure, apply daily penalties after an initial conviction.

2.5.3 If we consider there to be a serious risk to members of the public or property, or in circumstances of continued failure, we reserve the right to:

(a) require works activities to be stopped and require the dismantling of temporary structures where works have been undertaken without the required permit

(b) suspend or cancel any permit or approval related to the failure (for example, where a hoarding, gantry or scaffold is not erected in accordance with approved plans, we may suspend or cancel the permit and require the dismantling of the structure)

(c) suspend or cancel other permits relating to your project's use of public space (for example, where a gantry is not erected in accordance with approved plans and presents a risk, we may suspend or cancel associated temporary protective structure, Construction Permit Zone and other space occupation permits)

(d) notify the property owner and relevant building surveyor that permits and/or approvals have been suspended or cancelled.

2.5.4 If any injury, damage or loss is caused as a result of your failure to comply, we also reserve the right to take further legal action, including for compensation.

2.6 General legal obligations

This Code has been compiled and issued to enable compliance with good practice guidelines for building works and clause 7.1 of our Activities Local Law 2019, excluding compliance with occupational health and safety requirements, which you must also consider separately. While this Code specifies minimum requirements, it is not intended to be, and should not be treated as, an exhaustive statement of legal, technical and other factors involved in the interpretation and specification of building works.

In planning and carrying out works that are subject to this Code, you are responsible for making your own investigations and enquiries regarding such works.

2.6.1 Compliance with this Code is not a substitute for compliance with other laws governing building works or works on roads or traffic management. You are responsible for:

- maintaining compliance with any conditions of a planning permit
- checking other relevant legislation, regulations, codes of practice and standards
- obtaining all necessary approvals, permits and/or consents from the relevant authorities.

2.6.2 Any precautions for public protection over the street alignment must comply with the Building Regulations 2018.

2.6.3 All activity taking place in the road must comply with:

(a) Road Safety Act 1986 and Regulations

(b) Road Management Act 2004, Regulations and codes of practice

(c) Melbourne City Council Activities Local Law 2019

(d) Occupational Health and Safety Act 2004 and Regulations (to the satisfaction of the responsible authority – WorkSafe Victoria).

2.6.4 You must ensure that Public Liability Insurance and other relevant insurances are maintained for the duration of the building or works activities. Our specific requirements for Public Liability Insurance – Certificates of Currency are available on our website.

2.6.5 You are responsible for ensuring that all workers, sub-contractors and visitors to the worksite comply with the requirements of this Code and any conditions of approval, permit or consent.

3. Definitions

In this Code

"2002 Code" means the Code of Good Practice for Construction Sites adopted by the former Docklands Authority on 22 March 2002 and amended by this Code.

"accessible" means having features to enable access and use by people with a disability. Most notably, pedestrians require a continuous accessible path of travel within all spaces open to the public.

"accessible parking" means parking designated for use by vehicles displaying an accessible parking permit, indicated by parking signs displaying the International Symbol of Access.

"adjoining property" means any land (including any public property, road or other public space) that shares a boundary with a worksite or with a property within which a worksite is located, so as to be at risk of damage or other impact resulting from works activities.

"after hours" means any period where a worksite is unoccupied or when work is not being undertaken. This could include any period outside working hours, such as overnight, weekends, public holidays and industry rostered days off.

"arterial road" has the same meaning as in the Road Management Act 2004.

"AS" or **"Australian Standard"** means an Australian Standard that has been approved and published by the Council of Standards Australia from time to time. Where the Code does not include the date of the Standard, the applicable Standard is be deemed to be the current edition.

"AS/NZS" means a joint Australian/New Zealand Standard that has been approved and published by the Council of Standards Australia from time to time. Where the Code does not include the date of the Standard, the applicable Standard is be deemed to be the current edition.

"authorised officer" has the same meaning as in our Activities Local Law 2019.

"barrier" means a fence, hoarding, rail, traffic cone, pedestrian control sign or barricade erected for the exclusion of the public and/or for the control of noise, dust or debris.

"building" has the same meaning as in our Activities Local Law 2019.

"building site" means a site where building works (which has the same meaning as in our Activities Local Law 2019) are proposed to be carried out, or are being carried out.

"building surveyor" means a private building surveyor or the municipal building surveyor or other person defined as a building surveyor for the purposes of the Building Act 1993.

"building works" has the same meaning as in our Activities Local Law 2019.

"bulk excavation" means the removal of large amounts of soil, rock or other material from a site that is typically required when providing large spaces below ground level for a project (for example, underground parking or basements).

"catch platform" means a platform attached to a scaffold or perimeter of a building to arrest and contain objects that may fall from a working platform. The cantilevered portion of a catch platform can also be called a catch fan.

"central city" means the area of intense employment, retail, residential, entertainment and other activity in central Melbourne. It includes but is not limited to the areas bounded by the Hoddle Grid extending to Peel and Victoria Streets to the north, plus Southbank, South Wharf and Docklands.

"competent person" has the same meaning as in the Australian Standards: a person who has acquired through training, qualification, experience, or a combination of these, the knowledge and skills enabling that person to perform the task required by a recognised standard.

"Construction Management Plan" or **"CMP"** has the same meaning as in our Activities Local Law 2019.

"Construction Traffic Impact Assessment" or **"CTIA"** means a report and plans detailing the traffic management methodology that is proposed for the life of a building project and forms part of a Construction Management Plan (CMP). The CTIA details the safe, equitable and effective management of public and works traffic and access. Previously referred to as a Construction Traffic Management Plan (CTMP).

"Construction Permit Zone" means an on-road parking area designated by 'Permit Zone, Construction Vehicles' parking signs, installed to accommodate the stopping, parking, loading and unloading of vehicles at an adjacent building site.

"contra-flow" means where traffic is temporarily directed the opposite way to normal, against the usual flow of traffic, under the supervision of traffic controllers.

"Council", **"we"** and **"us"** refers to Melbourne City Council, City of Melbourne (Council's corporate, informal name) or any member of staff who has been delegated power by an Act of parliament or other law (for example, the Local Government Act 1989 (Victoria)).

"deep excavation" means excavation deeper than 1500 mm.

"demolition" has the same meaning as in AS 2601: the complete or partial dismantling of a building or structure, by pre-planned and controlled methods or procedures.

"Department of Transport" or **"DoT"** means the integrated Victorian transport department from 1 July 2019, which brings together the former Department of Transport, Public Transport Victoria and VicRoads (including the Head, Transport for Victoria and the Secretary to the Department of Transport).

"encroachment" means any object or thing projecting from a building on, over or into public space.

"engineer" in an area of engineering covered by the Professional Engineers Registration Act 2019 means an endorsed professional engineer currently registered with Victoria's Business Licensing Authority.

"exclusion zone" means a dedicated 'safe space' or 'no-go zone' around high-risk activities that has the primary purpose of protecting workers and members of the public from falling objects.

"footpath" means any area used by pedestrians, including defined areas located in the road between the kerb and the street alignment.

"gantry" means a bridge-like overhead protective structure which covers an area of public space adjacent to a worksite and provides protection to the public.

"green infrastructure" has the same meaning as in our Activities Local Law 2019.

"heavy vehicle" has the same meaning as in the Heavy Vehicle National Law.

"hoarding" means a temporary fence or structure that encloses a worksite to restrict access and provide side protection to the public.

"hoisting zone" means a zone of a gantry dedicated for the lifting or hoisting of materials from the road to the building site, typically by a tower crane located within the site.

"kerb" has its ordinary common meaning.

"luminance contrast" has the same meaning as in AS 1428.1.

"mobile plant" means machinery, equipment or appliances that are self-propelled, vehicle-mounted or towed. Examples include but are not limited to forms of mobile crane, boom lift, cherry picker, scissor lift, concrete pump and concrete boom truck.

"municipal assets" means assets owned and/or managed by Council.

"municipal road" has the same meaning as in the Road Management Act 2004.

"municipality" means the municipality of Melbourne, served by the Melbourne City Council.

"nuisance" has the same meaning as in our Activities Local Law 2019.

"parking area" has the same meaning as in the Road Safety Road Rules 2017 (Victoria).

"parking bay" has the same meaning as in the Road Safety Road Rules 2017 (Victoria).

"pedestrian" has its ordinary common meaning.

"perimeter scaffold" means a scaffold specifically erected to support elevated access or working platforms and to provide overhead and side protection to the public around a building site. It is typically used on demolition sites and in multi-storey construction.

"person" has the same meaning as in our Activities Local Law 2019.

"premises" has the same meaning as in our Activities Local Law 2019.

"public precautions" mean measures taken to protect the safety of the public from risks posed by building works. Hoarding, gantries and scaffold are the temporary protective structures considered to be primary precautions for protection of the public.

"public space" has the same meaning as "public place" within our Activities Local Law 2019.

"public transport infrastructure" means assets or infrastructure forming part of, or ancillary to the provision of public transport, which are owned and/or managed by public transport providers or relevant train, tram and bus concession holders, including but not limited to tram tracks, overhead powerlines, bus, tram or train stops or shelters.

"public tree" means a tree (including its trunk, branches, canopy and root system) in the municipality that is either owned or managed by Council. Note: all public trees are subject to our Tree Policy.

"report and consent" has the same meaning as in Regulation 116 of the Building Regulations 2018.

"retroreflective" has the same meaning as in AS/NZS 1906.1. It includes retroreflective materials and devices for road traffic control purposes.

"road" has the same meaning as in our Activities Local Law 2019.

"road infrastructure" has the same meaning as in the Road Management Act 2004.

"road-related infrastructure" has the same meaning as in the Road Management Act 2004.

"road rules" means the Road Safety Road Rules 2017 (Victoria).

"road safety audit" or **"RSA"** means an assessment undertaken by a suitably qualified traffic management professional to identify gaps in a traffic management strategy that could result in safety hazards for road users. This can be performed as a desktop assessment based on traffic management plans, or a post-implementation assessment of traffic management measures on-site.

"road safety barrier system" means an integrated system of roadside devices that inhibits vehicle penetration and has vehicle redirecting properties. Typically used between traffic and an adjacent temporary hazard, and for the protection of workers and other road users in vulnerable situations where the lateral clearance to moving vehicles would otherwise be insufficient for safety.

"road user" means any driver or rider, passenger, cyclist or pedestrian using the road (either as a conduit or as a destination).

"roadway" has the same meaning as in the Road Management Act 2004.

"scaffold" means a temporary protective structure erected to support elevated access or working platforms. Scaffolds are commonly used in building and maintenance work to provide a safe, stable work platform when work can't be done at ground level or on a finished floor.

"security" means a security deposit or security bond, held as a guarantee to secure the reinstatement of municipal assets in the event of damage (unless the context indicates otherwise).

"sediment" means any soil, rock or gravel material that has been broken down by erosion, excavation and other construction activities and can build up in stormwater assets and waterways.

"shared lane" means an area of the roadway for the passage of moving vehicles, allocated sufficient width to be shared by cyclists positioned adjacent to those vehicles.

"shared zone" means an area of road designated by regulatory 'Shared Zone' signs, where pedestrians, cyclists and vehicles share the same road space without physical separation or marked lanes. Vehicles and bicycles must give way to pedestrians at all times.

"shoring" means structural members (typically of timber, steel or concrete) used to support an excavation face to prevent slippage of earth.

"shuttle-flow" means where traffic is alternated between normal and contra-flow (opposite to normal) direction, under the supervision of traffic controllers.

"site sheds" mean portable buildings used as site offices, lunch rooms, first aid rooms, toilet blocks and the like.

"skip" means a skip, bin, container or the like (including those with wheels affixed). Used for the delivery, collection, removal or handling of items including but not limited to building materials, waste and recycling.

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"soleplate" means an object that is typically used under gantry columns or scaffold standards to increase the bearing area and distribute the load from these structures to the supporting surface without damaging or adversely affecting the structural integrity of this surface.

"street alignment" has the same meaning as in the Building Regulations 2018.

"street frontage" means any property boundary that abuts the street or road.

"street furniture" means assets constructed or installed in public space to enhance the amenity, appearance or enjoyment of the area, such as benches, bins, bollards, plaques, banner poles, sculptures, drinking fountains, bicycle hoops and the like.

"structural engineer" means a person who is currently registered as a professional engineer with the Victorian Business Licensing Authority, specialising in the area of structural engineering.

"suitably qualified" means an individual possessing the prescribed qualifications relevant to a specific activity, including current registration in terms of relevant legislation, where applicable.

"suitably qualified arborist" means the person responsible for carrying out the tree assessment, report preparation, consulting with designers, specifying tree protection measures, monitoring and certification. The project arborist will be suitably experienced and competent in arboriculture, having acquired through training, qualification (minimum Australian Qualification Framework level 5, Diploma of Horticulture (Arboriculture)) and/or equivalent experience, the knowledge and skills enabling that person to perform the tasks required by this standard.

"surcharge load" means any load, including a temporary or permanent structure, vehicle, plant, material or excavated earth that is located on the surface in close enough proximity to an excavation to have the potential to cause lateral pressure to act on the slope, wall or support system of the excavation.

"suspended scaffold" means a suspended platform which is capable of being raised or lowered when in use by means of powered or manually operated scaffold hoists; also known as a 'swing stage'.

"swept path" means the area bounded by lines traced by the extremities of the exterior of a vehicle while turning, used to demonstrate that appropriate clearances for vehicle movement can be achieved.

"tactile ground surface indicator (TGSI)" has the same meaning as in AS/NZS 1428.4.1 and to the extent that it is not inconsistent, it also includes tiles installed on the footpath, ground or floor surface designed to provide warning or directional information to pedestrians who are vision-impaired.

"temporary fencing" means transparent chain wire fence that may be temporarily installed during certain short-term works activities to fence off an area. See 17.5.1

"temporary pedestrian crossing" means a formal crossing point for pedestrians, constructed to facilitate pedestrian redirection associated with long-term traffic management. Temporary pedestrian crossings are typically planned for removal following the completion of building works.

"temporary protective structure" or **"TPS"** means a removable structure (such as a hoarding, gantry or scaffold) that has been erected for a limited period of time at an authorised location to provide protection for the public and enable the safe undertaking of building works.

"tower crane" means a fixed crane located within a worksite, lifting and lowering items within the site, or between the road and the site.

"traffic" means all vehicles, bicycles or persons travelling on a road unless the context indicates otherwise.

"traffic control signal" has the same meaning as in our Activities Local Law 2019.

"traffic controller" means a person suitably qualified to control traffic.

"traffic lane" means an area of the roadway designated for the passage of moving vehicles and bicycles in a single direction.

"transport mode" means the method of travel or movement of people or goods, including walking (pedestrians), cycling, vehicular (including passenger vehicles and heavy vehicles) and public transport.

"tree plot" means the engineered area within which a public tree grows.

"tree protection zone (TPZ)" has the same meaning as in AS 4970.

"utility infrastructure" assets forming part of utility networks owned and/or managed by utilities or relevant authorities (electricity, gas, water, telecommunications and sewage) such as pipes, pits, overhead poles and cables, service cabinets and the like.

"variable message sign (VMS)" means a portable electronic sign used to provide information to road users.

"vehicle" has the same meaning as in our Activities Local Law 2019.

"vehicle crossing" means a crossing point located within the road to allow vehicles to move between the property boundary and the roadway. Often referred to as a crossover, and may overlap portions of a footpath, nature strip and kerb.

"waste" has the same meaning as in the Environment Protection Act 2017.

"waste container" has the same meaning as in our Activities Local Law 2019.

"WorkSafe" means WorkSafe Victoria, the Victorian state health and safety regulator.

"worksite safety barrier screen" means a screen installed to provide a physical partition between a worksite and the roadway, also known as an anti-gawking or anti-debris screen.

"you" refers to the person applying for approval, permit or consent. Unless the context indicates otherwise, this person should be the builder, principal contractor or works manager, acting as a delegated representative of the entity name that appears on any application, approval, permit or consent.

"zone of influence" has the same meaning as in the WorkSafe Compliance Code: Excavation.

4. Construction Management Plans (CMPs)

Our approach to construction management relies on compliance with this Code. The Code clearly sets out our expectations for the conduct of building works in the municipality, and provides our requirements and recommendations for planning and undertaking your project. Your compliance with this Code ensures that your building and construction activities meet our objectives, and significantly reduces the burden of preparing a Construction Management Plan for our assessment.

Clear direction. Reduced enquiries. Better applications. Faster approvals. Streamlined administration.

4.1 Objectives

All applications for Construction Management Plan (CMP) approval should:

- comply with this Code
- prioritise public safety, amenity and asset protection
- minimise the impact of your project on public space and the community
- identify if you are unable to meet any Code requirement, and provide a site-specific, reasoned alternative that meets or exceeds our objectives.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

4.2 Our powers to regulate building works and standards

4.2.1 Our Activities Local Law 2019 requires you to:

(a) comply with any obligation imposed by this Code

(b) provide written notice to us prior to commencing building works. We can also require you to include a CMP with this notice, which we must approve before you commence works.

(c) comply with any approved CMP

(d) obtain the required permits before undertaking a range of activities in public space. In a building context, these relate broadly to working in, installing temporary structures in, or occupying an area of the road, or conducting any activities outside our hours of building works.

4.2.2 All building, construction and works activities undertaken in the municipality must comply with this Code unless we approve a specific exception via conditions in a permit, approval or consent. The Code sets out our comprehensive requirements, including those formerly communicated via our Construction Management Plan Guidelines and Templates (see 4.3.2).

4.3 CMPs for projects in the municipality

4.3.1 A CMP records the methods you will implement to undertake your building works. It provides us with a complete picture of your building activities to ensure works do not adversely affect health, safety, amenity, traffic or the environment of the surrounding area.

4.3.2 This Code replaces our former Construction Management Plan Guidelines and templates.

4.3.3 If you are required to submit a CMP, it must be approved by us before we issue any related permits to you (and before any works commence). Our approval of the CMP forms a contract between you and us regarding your compliance with:

(a) this Code

(b) any exceptions where you cannot meet a condition of this Code.

(i) An exception is a detailed alternative method (together with a demonstrated reason the condition cannot be met) that may or may not be approved at our absolute discretion.

(ii) CMP submissions are expected to comply with this Code as much as practically possible. You should prepare your project plans and site plans to meet this Code, without requiring exceptions to any Code conditions unless absolutely necessary.

4.4 When we require a CMP

4.4.1 You must submit a CMP for our approval prior to commencing building works if any of the following conditions are met:

(a) a condition of your planning permit requires it

(b) your building works will include bulk or basement excavation where the level of land will be altered to be lower than surface level of the roadway or footpath (such as for basement car parking or swimming pools)

(c) your building works will include demolition activities that will require any use of public space or impact on the safety of the public

(d) your building works will span four or more weeks where your occupation of public space could cause disruption to road users

(i) except where our Municipal Building Surveyor has directed you to create an exclusion zone in public space to undertake emergency works

(e) we advise you in writing that a CMP will be required.

4.4.2 If you are required to submit a CMP, you will also be required to provide security to guarantee the reinstatement of municipal assets in the vicinity of your project. See 10.4.2 Security deposits and bonds for more information on security.

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4.5 Preparing and submitting a CMP

4.5.1 Your CMP must address each stage of building works (demolition, excavation and construction) that applies to the project.

4.5.2 You must also prepare a Construction Traffic Impact Assessment (CTIA, formerly known as a CTMP or Construction Traffic Management Plan) for submission with any CMP that will involve the use of public space for four or more weeks to facilitate building activity. See 15.10 for detailed information on CTIAs and long-term traffic management.

4.5.3 CMPs must be submitted online. A standardised, online process for CMP submission helps ensure that all CMPs contain complete, accurate and relevant information to enable us to make a timely assessment, and to streamline the administration and monitoring of our approvals.

- The requirements for extensive CMP documentation have been reduced as this Code provides our detailed requirements for the conduct of building works in the municipality.

4.5.4 Once approved, your CMP will be related to all applications for Council permits associated with your project. This relationship allows pre-filling of data when you are applying for permits, and ensures any permits issued for works activities conform to your approved CMP.

4.5.5 A CMP remains a living document throughout your project. Requests to modify a CMP must be submitted online and are subject to our assessment and approval. If approved, the amended CMP is then related to all subsequent applications for Council permits.

4.5.6 Detailed information on preparing and submitting a CMP is available on our website.

5. Cost of works

You should consider the total cost of work when undertaking building, construction or works in the municipality.

In addition to fees associated with obtaining our approval, permit or consent, you should anticipate that any costs incurred by us and other authorities in facilitating your project will be passed on to you.

5.1 Works at your cost

5.1.1 Works at your cost include:

(a) all works undertaken by you, whether carried out on private property or in public space, (including required works to reinstate public or private assets following your works activity)

(b) all works undertaken or commissioned by us or by other asset owners to facilitate your works activities (such as modification, removal or relocation of assets). See 10.4.5 below Relocation or temporary removal of assets in public space for more information.

(c) any works undertaken or commissioned by us if it is necessary to repair any damage caused by you, or any sub-standard reinstatement done by you to municipal assets. See 10.6.2 Reinstatement of our assets for more information.

5.2 Security

5.2.1 Where we determine your project or works present a risk of damage to municipal assets, we may require you to provide a form of financial security (for example, for projects requiring a Construction Management Plan, works involving public precautions beyond the street alignment, and works near public trees) before approving your activity. See 10.4.2 Security deposits and bonds for more information.

6. Stakeholder engagement

6.1 Objectives

All stakeholder engagement should:

- proactively engage stakeholders and keep them informed with timely updates
- provide accessible opportunities for feedback and be responsive to stakeholder needs
- communicate clearly and manage expectations
- promptly respond to complaints.

6.2 The need for stakeholder engagement

Projects with informed and satisfied communities run more smoothly.

Engagement via consultation and notification ensures that stakeholders are kept informed of upcoming activities that can affect local safety, amenity and access. Effective engagement:

- provides communities with a sense of involvement with your project
- manages expectations
- limits the extent of unforeseen disruption that stakeholders are exposed to
- reduces objections and complaints.

6.3 Identifying stakeholders

Stakeholders are occupiers of residential properties, business operators, service providers and owners or managers of other land uses (for example, medical, education and aged care) or organisations located or invested in the vicinity of your project or works – including in surrounding streets and lanes. Stakeholders are likely to be affected by your works activity (including noise), temporary infrastructure and changes to access, traffic or parking conditions.

6.3.1 Depending on the location and potential impact of your works activity and any long- or short-term traffic management strategy, you will be required to engage with stakeholders. Consultation undertaken during the planning permit process does not exempt you from the requirement to engage with stakeholders prior to works commencing. Stakeholders include interests not limited to:

- occupiers of land uses impacted by changed traffic or parking conditions
- owners or occupiers of noise-sensitive land uses (residences, hotels, crèches, schools, hospital wards, nursing homes, law courts, offices, restaurants or cafes)
- existing (or pending) nearby building or worksites
- emergency services (for example, Police, Fire, Ambulance and Department of Transport traffic management centre)
- Department of Transport and public transport operators (train, tram and bus operations)

- Bicycle Network
- Victoria Walks
- link road operators (Transurban)
- utility service providers (electricity, water, gas and telecommunications)
- major statutory infrastructure works (overseen by the Office of Projects Victoria)
- hospitals
- car share vehicle operators
- Commercial Passenger Vehicles Victoria
- stadium, theatre and public event venue operators (for example, MCG, Melbourne Park, Docklands Stadium, Regent Theatre, Her Majesty's Theatre, Princess Theatre, Arts Centre Melbourne)
- waste collection companies
- business associations
- community groups (for example, disability groups or via our Disability Advisory Committee)
- street trading operators (for example, outdoor dining, kiosks, food trucks, buskers and seasonal stalls).

More information on identifying and contacting relevant stakeholders is available on our website.

6.4 When you need to engage stakeholders

6.4.1 When you prepare a Construction Management Plan (CMP), Construction Traffic Impact Assessment (CTIA) and any Traffic Management Plan (TMP) to be submitted as part of a permit application, you must consider and address the needs of stakeholders whenever your activities have the potential to affect:

- *safety* – example: heavy-vehicle movements could create potential conflict points with vulnerable road users, particularly during reversing manoeuvres
- *amenity* – example: a temporary structure may obstruct the view of a business or restrict the amount of natural light entering a building, or noisy works may be audible from nearby public and private spaces
- *service provision* – example: temporary disconnections to water, power or gas, or a disruption to standard waste collection arrangements
- *access* – example: access to a property, parking or loading facility will be temporarily obstructed, or changed pedestrian conditions impact footpath access or navigation for pedestrians using mobility aids or with vision impairment
- *movement of traffic* – example: disruption to vehicle, bicycle or pedestrian traffic past the site as a result of road, bicycle lane or footpath closures to facilitate a construction activity.

6.4.2 All of your communications with stakeholders should consider culturally and linguistically diverse communities and people with specific needs. Communications channels, formats and messaging may require specific provisions for people who, for example, may require access to simplified, translated and/or audible communications. All communications should:

- use familiar, plain English words
- avoid using jargon, acronyms or technical language
- use straightforward phrases, sentences and ideas

- prioritise your information in order of importance
- use visual information as an aid (such as symbols, diagrams or images)
- use translated information wherever possible.

6.5 Consultation

6.5.1 You must consult with stakeholders prior to:

(a) developing a CMP and CTIA

(b) applying for permits related to any long-term project (lasting 4 weeks or more)

(c) applying for permits for works activity (including associated traffic management measures) that could disrupt access to or from any property, business or service (regardless of duration).

6.5.2 If you fail to appropriately consult with relevant stakeholders, your application may be unsuccessful or be delayed until you can demonstrate that consultation has occurred.

6.5.3 We recommend in-person consultation, particularly for impacted businesses. When you consult with stakeholders, you must:

(a) provide written advice detailing:

- the proposed works and traffic management measures
- expected impacts
- impacted locations
- dates
- duration
- hours of operation (see 15.6 Peak times and 13.1 Permitted hours of building work for details)

(b) request feedback and provide a due date, allowing a minimum 14 days for public submissions

(c) provide a contact name and telephone number and/or email address for enquiries and requests for further information

(d) provide a means for stakeholders to opt-in to future notifications and updates regarding the project

(e) record the names and property addresses of all respondents, together with any objections or concerns (raised in person or by submission)

(f) collate feedback and amend your plans to incorporate stakeholder requirements wherever possible and mitigate identified issues.

6.5.4 You must demonstrate in your application for a permit or approval that you've made satisfactory efforts to engage and to determine and accommodate the needs of local stakeholders. You must provide:

(a) a record of stakeholder names, addresses and objections/concerns

(b) a summary of your proposed actions to mitigate stakeholder issues

(c) copies of written support from local stakeholders (such as agreement on accepted dates and times for *road* closure, or arrangements for alternative access to properties)

- If you cannot obtain written support, you must provide documentation of your consultation process and activity (for example, a stakeholder invitation register and detailed minutes from a consultative public information session).

6.5.5 After consulting with local stakeholders, you must also provide them with timely notification prior to the commencement of stages of work that will impact them (see 6.6 below for more information).

6.6 Notification

6.6.1 You must provide notification to stakeholders before you commence works or implement any traffic control measures if:

(a) your works activity (including any traffic management measures) will impact the access to or amenity of any property. Examples of impacts to amenity include:

- temporary closure of a length of the roadway or footpath
- noise from plant and equipment
- additional heavy vehicle movements
- significant loss of on-road public parking
- activities and structures that reduce the visibility of a business to the public.

(b) you propose any full closure of the roadway. You must notify emergency services (fire, police and ambulance) prior to commencing work or implementing any traffic control measures. See 15.5 Maintaining access for detailed information regarding road closures and additional approvals required.

(c) you plan to conduct works outside our hours of building works (out of hours), even if the work will take place on private land (see 13.2 Out of hours permits).

6.6.2 You should distribute the required notification for:

(a) works requiring a Construction Management Plan – via regular updates to the occupiers of all properties within 50 m of any site boundary.

(b) any out of hours work – to the occupiers of all properties within 50 m of the site boundary.

(c) any full closure of the roadway or works that would impact access to any property (including footpath closure) – to the occupiers of all affected properties and affected stakeholder agencies.

6.6.3 Written notification must include:

- indication of the impacted area (shown on a highlighted map)
- the dates, times and durations of any disruptions (these may be different for individual impacts, such as for noise and for traffic disruption)
- a description of the works activity and any key traffic management measures being implemented
- the expected impact of the works activity and the local stakeholders who could be affected
- any property access considerations and alternative access arrangements
- the project supervisor's name (with an all-hours telephone number)
- the traffic management provider's name (with an all-hours telephone number)
- a means for opting into or out of future notifications and updates regarding the project.

(a) A sample notification template is available on our website.

6.6.4 Notification should be timed as follows:

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(a) As early as possible, notify all relevant emergency services and authorities where additional approvals for works or traffic management may be required.

(b) 10 days before you implement any traffic management measures, notify all relevant stakeholder agencies.

(c) At least five days before works commence, notify occupiers of residential properties, sensitive land uses, business operators (including street trading) and local organisations.

6.6.5 Where notification is required, at the time you commence this work or implement your traffic management measures, you must affix notices visible to the public outside the worksite (and on each segment of road affected by traffic management), listing:

- the project name
- the dates and times vehicles, bicycles and pedestrians will be impacted
- the dates, times and durations works will occur out of hours
- the project supervisor's name (with an all-hours telephone number)
- the traffic management provider's name (with an all-hours telephone number).

A sample notice template is available on our website.

6.6.6 We may request you to supply us with copies of:

- the notification you provided to local stakeholders
- a list of the agencies that you notified
- a map of the properties that you notified
- a list of any properties where only a body corporate was notified
- a list of any properties you were unable to notify
- dates and times notification was distributed
- the notice you made visible to the public.

6.7 Complaints

6.7.1 You must have a complaints-handling process in place and respond to all complaints received regarding your works activities. Complainants must receive a response to their complaint within 72 hours of receipt.

6.7.2 We may request you to supply us with copies of your records of complaints received and actions taken.

7. Third party approvals

Depending on the nature of your proposed project or works, you may need to obtain approvals from third parties in addition to applying for our approval, permit or consent. These can include other authorities, utilities, providers of public transport and owners or managers of private property. In some instances, we may require you to obtain these approvals prior to applying to us.

You are responsible for identifying and engaging with all relevant third parties, and you should allow for any lead time that may be required in obtaining their approval.

Several key third party approvals are indicated below, however the information provided in this section is not exhaustive. Supporting information is available in 6.3 Identifying stakeholders

7.1 Office of Projects Victoria

7.1.1 If your project could impact or be impacted by current or pending major statutory infrastructure projects (such as a tunnel, road or rail project) you should consult with the Office of Projects Victoria during your planning phase.

7.2 Road authorities

7.2.1 We are the coordinating road authority for municipal roads within the municipality and the Department of Transport is this authority for freeways and arterial roads. Some link roads on leased land (such as Melbourne CityLink, managed by Transurban) are operated and managed by the link corporation.

7.2.2 Excavation that is proposed to adjoin a road or project beyond the street alignment may require protection work to support the road. If the relevant building surveyor determines that protection work is required, you must provide a protection work notice to the responsible road authority (as the manager of the road) in accordance with the Building Act 1993.

(a) If protection work is required over an arterial road, you must provide a notice to us and to Department of Transport.

(b) See 7.7 if the road is a private laneway.

7.3 Department of Transport

7.3.1 If your works (including any traffic management measures) will take place in an arterial road, your traffic management plan must be submitted to the Department of Transport (DoT) for approval. DoT will determine the permitted working hours and conditions for work on arterial roads.

7.3.2 If you plan to implement any major traffic control device specified in the Road Safety (Traffic Management) Regulations 2019 (such as signals, signs and markings that place a significant and enforceable condition on the use of a road) on any public road, you must obtain a memorandum of authorisation (MoA) from DoT. More information on major traffic control devices is available from DoT.

7.4 Below-ground utility providers

7.4.1 If your excavation is likely to affect the stability of any services or structures belonging to a utility (such as electricity, gas, water and telecommunications), you must obtain the approval of the responsible authority before we issue you with a permit. See 22.2.2 Underground and overhead assets for information on obtaining asset plans and information from utilities.

7.4.2 If your works activity could impact or affect access to fire hydrants, utility pits and service covers (for example, due to road closure or the placement of temporary structures) you must consult with and obtain any required approvals from the relevant authority or asset owner.

7.5 Responsible power authorities

7.5.1 If your works will take place near overhead powerlines, or risk interfering with powerlines or related infrastructure (including below-ground networks), you must have a permit from the responsible power authority, and may require a site assessment by the authority before commencing any work. You must comply with all conditions specified in any approval.

7.5.2 If mobile plant will be delivered, moved or operated near overhead electrical powerlines, you must follow the relevant 'No Go Zone' safety procedures to prevent any part of the plant or load from coming too close or contacting live overhead assets. Information on safety procedures is available from WorkSafe Victoria or Energy Safe Victoria.

7.6 Public transport authorities and operators

7.6.1 Rail and tram infrastructure

(a) You must have a permit to undertake works that could impact land and assets managed by VicTrack, generally any works activities occurring within 5 m of a rail or tram corridor. Information on building and works next to rail and tram corridors is available from VicTrack.

(b) You must have written permission from the accredited rail operator (such as Vline, Metro Trains or Yarra Trams) before commencing any work near train or tram infrastructure and light rail assets (including but not limited to tracks, overhead assets and substations) and you must comply with all conditions specified in its approval – including requirements for the reinstatement of assets.

(c) You should plan for early consultation with the relevant authorities and operators to ensure sufficient lead times for any approvals (such as Construction Traffic Impact Assessment approval) or if asset relocation (for example, the relocation of a tram stop) could be required.

7.6.2 Bus services and routes

(a) If a bus lane or bus service could be affected by your works activity, you must contact and obtain written approval from the relevant bus service operator and Department of Transport (see 7.3 above). A copy of our approval, with conditions, should be provided to the bus service operator and DoT prior to implementing any road closure.

(b) You must obtain approval from the relevant bus service operator for the proposed use of a bus zone. Copies of your CTMP should be provided to the service operator.

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7.7 Private property owners and managers

7.7.1 If you are required to undertake protection work or install any part of a public precaution in a private laneway (one not constructed, repaired or managed by us), you must obtain approval from the laneway owner.

(a) Where the lane is covered by a remnant title or deed and the owner cannot be found, protection work notices should be served on the benefiting land – adjoining properties that benefit from access provided by the private laneway. More information on our role in laneway management is available on our website.

(b) You must obtain our report and consent where any precautions deemed necessary by the relevant building surveyor will be erected beyond the street alignment, including in a private laneway. See 2.3 Public protection and the 'Report and Consent' process for more information.

7.7.2 If you will need part of a crane or mobile plant to operate above adjoining property (whether or not a load is being lifted), you must obtain approval from the affected property owner or relevant authority. See 20.2.2 for more information.

7.7.3 If you will need us to install any parking changes extending beyond your site frontage (such as a Construction Permit Zone parking area that will occupy kerbside space in front of adjoining properties), you must obtain the written approval of the affected property owner(s). See 15.10.1 Preparing and submitting a Construction Traffic Impact Assessment (CTIA) and 15.7.6 Parking (for general traffic and works vehicles) for more information.

7.7.4 If your works will impact access conditions in a private laneway (whether or not the works are occurring within the laneway), you must consult with the laneway owner.

(a) Where the laneway owner cannot be found you must consult with the owners of adjoining properties that benefit from access provided by the private laneway.

8. Access

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

8.1 Access for residents, businesses and services

8.1.1 Safe, convenient access must be maintained to and from properties adjacent to your works. Where your proposed works, temporary structures or traffic management strategy could disrupt access, you must consult with local stakeholders to determine mutually acceptable arrangements for access during your project (see 6.5 Consultation for detailed requirements). Disruptions to access could include:

- pedestrian access points
- private properties (including off-street car parking)
- delivery or loading facilities
- street trading operations
- waste collection.

8.1.2 See 15.5 for detailed traffic management considerations for maintaining access.

8.2 Access for emergency services

8.2.1 No part of any temporary structure (including fence feet, columns, standards, soleplates, cross bracing, etc.) must block or impede access to:

(a) firefighting equipment (see 8.2.2 below)

(b) egress paths to and from a building (including fire escape exits, emergency exists or other exits of adjoining buildings)

(c) underground (service pits) and above ground services (telecommunications pillars, service cabinets).

8.2.2 If any firefighting service or fire safety matter could be compromised, you must seek comment from Fire Rescue Victoria and incorporate any recommendations into your design or works and submit evidence of this with your permit application. Examples include:

- access to street fire hydrants (above- and below-ground)
- visibility of fire signage (such as street hydrant identification markings on poles).

8.2.3 If your traffic management strategy could impact the ability of emergency services vehicles to access any properties (via the temporary closure of a length of the roadway), you must notify emergency services as early as possible to allow time for any required approvals and/or modification of your proposal.

8.2.4 Emergency services personnel must be able to contact a representative of your building site in case of emergency, via a 24-hour contact number clearly indicated on the site's project information board (see 0 for detailed information).

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8.3 Access for utilities

8.3.1 No part of any temporary structure (including fence feet, columns, standards, soleplates or cross bracing) must block or impede access to essential services (such as service pits, service cabinets, power substations or any other essential utility infrastructure).

8.3.2 Where temporary structures are proposed to be located near utility infrastructure, clearances must be certified by a structural engineer and submitted when you apply for a permit to install the temporary structure.

(a) If your proposed works could impact the structural integrity of services, or you plan to place part of a structure over or in front of a service pit, you must consult with the relevant infrastructure manager or responsible authority and obtain their written consent to your proposal. You will need to submit this consent in writing with your permit application.

9. Accessibility

This Code outlines a range of requirements to assist people of all abilities to safely navigate the altered environment around worksites, including improved visibility requirements, safety measures to address tripping hazards and provision of continuous, accessible paths of travel.

We're committed to ensuring that development in the City of Melbourne is inclusive of all people regardless of their background, mobility or sensory ability. People of all abilities should be able to safely and easily move past a worksite, so it is essential to consider the impact of building, construction and works on all pedestrians, including people with disabilities.

9.1 Objectives

All changes to public space surrounding a worksite must ensure:

- all people can safely and accessibly navigate the area
- compliance with the Commonwealth Disability Discrimination Act 1992 (DDA)
- conformance to AS 1428.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

9.2 Responsibilities

9.2.1 All organisations have a responsibility under the DDA to provide equitable access to goods and services, and to premises used by occupants. 'Premises' is defined broadly to include structures, buildings, places (whether enclosed or built on or not – such as footpaths, road crossings, streetscapes and outdoor areas). This means that access for all people, including people with disabilities, is required and must be provided.

9.2.2 You must ensure that any structures or changes to the area surrounding your worksite comply with DDA legislation and AS 1428. This could include providing:

- minimum clear footpath widths (see 15.7.1(d))

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- P5 rated slip-resistant finishes to new or temporary surface pavements (in accordance with AS 4586 and HB 197)
- tactile ground surface indicators at ramps of long-term pedestrian crossing installations
- ramps to temporary crossings of kerbs and kerb bumps
- ramps with handrails to entrances and over any temporary feed lines on the footpath
- suitable signage (simple, clear, tactile)
- uniform, flush surfaces that are free from protrusions and catchpoints
- contrasting colours on edges and adjacent surfaces
- circulation spaces at doors and in passages.

(a) Any departure from DDA legislation and AS 1428 must be approved by us before works commence.

10. Asset protection and reinstatement

10.1 Objectives

All works activity should:

- support the public's safe and functional use of public space
- avoid or seek to actively prevent damage to public assets
- protect the integrity and longevity of public assets
- ensure complete reinstatement of public assets to the satisfaction of the Responsible Authority.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

10.2 Works affecting our assets

10.2.1 We manage a range of assets located in public space, via our ownership of the asset or by being the relevant authority for its management. The organisation responsible for the maintenance of specific assets in public space is usually determined by a combination of documents, including relevant maintenance agreements and the Code of Practice for Operational Responsibility for Public Roads issued under the Road Management Act 2004. A general overview of assets in public space is available in Table 10.1 (p.40).

10.2.1 We monitor the condition of municipal assets and ensure they are protected from any damage that could be caused by works affecting public space, and appropriately reinstated if damage occurs.

10.2.2 Before commencing any building works, property owners must pay an asset protection levy (see 10.4.1 below). We will then determine and advise you if:

- your project will require a Construction Management Plan (see 4.4 When we require a CMP)
- any security is payable (see 10.4.2 below)

10.2.3 When an application requires engineering design drawings, your submitted drawings must indicate provision for the protection and reinstatement of municipal assets (see Table 10.1 on page 40 for guidance) affected by your works activity.

10.3 Works affecting others' assets

10.3.1 Where your works could affect assets owned or managed by other authorities, service providers, providers of public transport or third parties (for example, electricity, water, telecommunications, public transport and major traffic control devices), you must consult with the asset owner and obtain any approvals, conditions and work instructions required from them prior to commencing work.

10.3.2 See 22.2.2 Underground and overhead assets for more information working near others' assets.

Table 10.1 - Assets in public space†

ASSET CATEGORIES					
road infrastructure*	**utility infrastructure**	**public transport infrastructure**	**street furniture***	**public trees and green infrastructure***	**road-related infrastructure**
roadway, medians, footpaths, kerb, channel, vehicle crossings, tree plots etc.	pipes, pits, overhead poles and cables, service cabinets etc.	rail networks, stops, shelters, overhead power etc.	benches, bins, bollards, plaques, banner poles, sculptures, drinking fountains, bicycle hoops, outdoor dining parklets etc.	public trees, tree guards, nature strips, median strips, lawns, parks, gardens etc.	stormwater assets*, traffic control signs, parking assets (signs, meters, sensors)*, traffic lights, street lighting, safety assets (cameras and speakers)* etc.
* **municipal assets**, owned and/or managed by Council					

† This table of assets is not exhaustive and is provided as a summary for guidance only.

10.4 Before starting your project

10.4.1 Asset protection levy

(a) We require the property owner to pay an asset protection levy prior to commencing any building works with a value of $10,000 or more (inclusive of labour and materials).

(b) The amount of the levy is scaled dependent on the value of the building works. See our approved Building Schedule of Fees online for details.

(c) The levy is independent of any additional financial security we may require before approving your project or works activity. See 10.4.2 below and 11.2.5 (Tree protection security) for more information.

(d) Our assets must not be damaged by any building works and any damage will result in civil liability, but may also result in fines being issued to the principal contractor and/or the property owner.

(e) More information on the asset protection levy is available on our website.

10.4.2 Security deposits and bonds

(a) We reserve the right to require you to provide security in the form of a financial deposit or bank guarantee (a bond) before approving a project, project stage or works activity, at our discretion.

(b) You will be required to provide security if your project meets any of the following conditions:

(i) requires the submission of a Construction Management Plan (CMP) (see 4.4 When we require a CMP)

(ii) requires the installation of public precautions over the street alignment (such as hoarding, gantry and/or scaffold).

(c) The security amount is calculated based on the repair or replacement value of municipal assets that we determine could be impacted by your project.

(d) Security held against a project applies to all works activity associated with the project, including by the principal contractor, all subcontractors, service providers and utilities. Security will not be released until the project is complete and either:

(i) all reinstatement of our assets has been completed to our satisfaction

(ii) or if the project is continuing, until a replacement security (of the equivalent amount and on equivalent terms) is received from another entity.

(e) We may require the property owner to provide security if a site will be left vacant (for example, following demolition works). In these circumstances, the property owner is responsible for the site after it has been vacated by the principal contractor or stage contractor.

(f) We will inspect our assets after you request the return of your security. If you fail to reinstate our assets in accordance with this Code, permit conditions and approved engineering drawings:

(i) we will direct you to repair the assets within two weeks, and notify us once you have completed those repairs

(ii) we will inspect your repair works and, if our assets are not appropriately reinstated, we will arrange repair works and deduct the cost of those works from your security

(iii) if you fail to repair our assets within two weeks of receiving direction from us, we will arrange repair works and deduct the cost of those works from your security.

(g) The specific terms and conditions that relate to the provision of security that apply to you may differ from the general conditions referred to in this Code.

(h) We reserve the right to draw from a security to ensure any damages to our assets are appropriately repaired, to recover unpaid fees related to the project and to recover costs, as necessary. If you fail to comply with this Code, with conditions of a permit, approval or consent or with a direction from us, these include costs related to:

(i) repairing, reinstating or replacing our assets (including remedial works to or replacement of trees and green infrastructure)

(ii) commissioning an independent assessment or audit (for example, where we consider a gantry or scaffold design or installation to be noncompliant)

(iii) removing or modifying temporary structures (such as gantries, hoarding and scaffold)

(iv) removing items from public space (such as plant, equipment and materials)

(v) removing temporary shoring measures from the road (such as ground anchor tendons)

(vi) maintaining or cleaning temporary structures or installations (such as removing graffiti or bills from hoarding or road safety barriers).

(i) If the cost of us repairing or replacing our assets exceeds the amount of security held, we reserve the right to invoice you for this cost and take legal action to recover costs if invoices remain unpaid.

(j) You will be asked to provide a separate Tree Protection Security if we deem your works have the potential to negatively impact the viability of any public tree. See 11.2.5 Tree protection security for more information.

(k) More information on security deposits and bonds, including indicative security amounts for a range of projects and works activities is available from our website.

10.4.3 Dilapidation report

(a) If we require you to provide security, we will prepare a dilapidation report. The report is our record of the existing condition of municipal assets that could be impacted by your works activities. We will use the report to compare the condition of our assets before and after your works, before returning your security.

(i) We may also require a colour closed-circuit television (CCTV) survey and report of stormwater assets (for example, if your project includes excavation, concrete works or a new stormwater connection) in accordance with the current Conduit Inspection Recording Code of Australia (WSA 05).

(ii) We will assess the CCTV information to determine if any damage or blockage has been caused by your works (for example, whether any concrete materials or other damaging solid or liquid substances have entered the drain), prior to the return of any security. See 10.6.2(h) for more information.

(b) We may visit the site at any time to inspect our assets (including stormwater assets) for damage.

10.4.4 Consent for works (road works)

(a) Before you excavate, install, remove or reinstate any road asset, you must obtain our consent to carry out the works – this includes excavation within a Construction Permit Zone, traffic impact works outside of a Construction Permit Zone or relocation of private services. This is a strict legal requirement under the Road Management Act 2004 unless you have a specific exemption. However, this does not apply to your works activity associated with the physical modification of a building, structure or driveway on private land.

- We are the coordinating road authority for municipal roads.
- Department of Transport is the road authority / coordinating road authority for arterial roads.
- Transurban is responsible for CityLink.

(b) Consent for works is separate to the requirement under our Activities Local Law 2019 to obtain permits to occupy and conduct building-related activities in public space.

(c) Following any works in the road that are subject to our consent:

- you must reinstate the area affected by your work to its prior condition
- you must notify us when reinstatement is complete
- your reinstatement is subject to a 12 month warranty period where you remain liable for any unsatisfactory performance or failure (for example, of surface pavement)
- if you fail to reinstate the area satisfactorily you may be subject to fines and the recovery of all costs.

(d) See 22.5.1 General considerations for works in the road for detailed requirements regarding our consent for works (road works), reinstatement and warranty.

10.4.5 Relocation or temporary removal of assets in public space

(a) To facilitate building works, assets in public space will sometimes need to be removed or relocated for the duration of the project. For example, where you propose to place a hoarding on the footpath and an existing bench seat would create an obstruction in the remaining footpath width for pedestrians, it may need to be temporarily removed or relocated. See 15.7.1(d) for pedestrian path requirements.

- Some assets are easier to remove or relocate than others. For example, bench seats and bike hoops are easier and less expensive to relocate than street light poles or information hubs.

(b) You must have the permission of the relevant asset owner before any asset is removed. Information on a range of asset types and asset owners is available on our website. The Dial Before You Dig service provides access to asset plans and information from registered utilities.

(i) If you require a municipal asset (one owned and/or managed by us) to be removed or relocated, you must complete a request for asset relocation on our website.

(ii) If we approve the relocation of our asset, you will be required to cover the full cost of its removal, any storage, and subsequent reinstatement to our satisfaction. This may be undertaken by us via our contractor, or we may request you to carry out this work subject to our conditions.

(c) You must not remove or relocate any assets yourself – this work will be undertaken by the asset owner and/or their contractor unless they advise you otherwise.

(d) You need to allow sufficient lead time for asset owners to undertake these works prior to your occupation of the area. See 7 Third party approvals for more information on assets owned or managed by others.

(e) If traffic signals or parking infrastructure will need to be relocated, this must be detailed in your Construction Traffic Impact Assessment (see 15.10.1 Preparing and submitting a Construction Traffic Impact Assessment (CTIA) for more information). Once we have approved your CTIA, for the modification or relocation of:

- *traffic signals and major traffic control devices* – you must apply to Department of Transport (DoT) for approval (see 7.3 for more information)
- *parking infrastructure such as parking signs, bays, line-marking, meters, in-ground sensors and relays* – we will undertake the changes to ensure they conform to the Road Safety Road Rules 2017 (this includes where parking signs will need to be installed on temporary structures such as hoarding, gantry or scaffold)
- *all other sign changes approved as part of your CTIA* – can be undertaken by you in accordance with your approved signage and line-marking plans.

(f) If street lighting requires removal or relocation, you must apply via our website (see (b)(i) above). We assess the impact of any change to street lighting levels prior to requesting the electricity supplier to undertake the work. See 16.6.1 Lighting design for more information on lighting design requirements associated with temporary street lighting.

(g) While a wide range of assets are able to be removed or relocated to facilitate your works in public space (at varying costs), you must exhaust all options to avoid the need to remove public trees. Approval to remove a public tree is subject to our Tree Policy (see 0

(h) You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

(i) Public trees for more information).

(j) Bluestone pitchers are important assets that contribute significantly to municipal character. Bluestone from existing kerb, channel and edging must be carefully salvaged and recycled wherever possible:

(i) existing pitchers, radials or kerbs should not be cut or damaged

(ii) removed bluestone must be stored according to our instructions (at your cost) for use during any reinstatement required at the completion of works.

10.5 During your project

10.5.1 Surface protection and load limits

(a) Our assets may need to be repaired throughout the course of your project – not just when your works are complete. If damage to our assets occurs (for example, a depression occurs in the footpath and presents a tripping hazard), you must reinstate that section of footpath immediately and make the area safe again.

(b) We may visit your worksite at any time to inspect our assets for damage.

(c) Mobile plant must be transported, positioned and used within our surface load limits. If your works activity will require the use of plant that exceeds these limits, you must provide a ground assessment report prepared by a structural engineer with your application that documents a higher allowable ground bearing pressure in the proposed location. This will require detailed assessment and take longer than our standard timeframes.

(d) On roadway surfaces, the loading capacity must be assessed in accordance with the pavement design considerations provided in Austroads Guide to Road Design Part 2 – Design Considerations.

(i) A maximum bearing pressure of 75 kPa must not be exceeded.

(ii) Transportation of Superloads and Class 2 Heavy Vehicles requires planning and consultation with Department of Transport. More information on heavy vehicle transport is available from DoT.

(iii) You will need our approval to transport Superloads and Class 2 Heavy Vehicles over significant assets (such as bridges and structures) and should allow sufficient lead-time for our assessment.

(e) On footpaths, the maximum gross vehicle mass (GVM) is limited to less than 3 tonnes for vehicles or mobile plant (including load) travelling or being operated on footpath surfaces.

(i) Vehicles between 3 and 6 tonnes must operate on rigid load distributing mats, such as heavy duty ground protection mats or plywood sheets to reduce the pressure on the surface. Plywood sheets must comply with AS/NZS 2269.0 and must have a smooth transition in surface level (via chamfered edges) to avoid causing a trip hazard.

(ii) Approval for the use of vehicles over 6 tonnes GVM will require additional assessment and may take longer than our standard timeframes. You must submit a detailed design and certification from a structural engineer with your permit application.

(f) Surface load limits apply to short-term loading (up to one day shift) on flat surfaces only. If mobile plant will be used for a longer period, or used near a slope or above a retaining wall you should undertake a site-specific assessment and design.

(g) Where mobile plant will travel on or over the kerb or footpath, or be operated from the footpath, you must ensure:

(i) plant movement along footpaths is minimised

(ii) all travel is confined to hard surface pavements such as concrete, asphalt and bluestone

(iii) the footpath and work area are accessed via properly-constructed crossings (these may be temporary crossings constructed in concrete in accordance with our engineering standards and specifications, see 23 Vehicle crossings for more information)

(iv) where a properly-constructed crossing is not available near the work area, suitable temporary kerb ramps to distribute plant load must be used for mounting the kerb to access the footpath.

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(h) On soft ground all vehicles must travel on and be operated on heavy duty ground protection mats to distribute load over the surface and protect lawns, roots and irrigation systems.

(i) Utility service pits and covers should be assessed for bearing pressure prior to outrigger placement or the travel or operation of mobile plant. Where necessary, pits should be covered with a suitable protective material that is also able to provide a safe environment for road users (providing luminance contrast to the surrounding pavement, a non-slip surface finish and smooth transition in surface to avoid becoming a trip hazard).

10.5.2 Public tree and green infrastructure protection

(a) It is rarely possible to repair stressed and injured trees so protecting them must be a high priority for all works activities. We have strict requirements for how work must be carried out in the vicinity of public trees and other vegetation. See 11 Public trees and green infrastructure for detailed information.

10.6 After your project

10.6.1 As your project reaches completion, several steps are involved in finalising your occupation of public space, reinstating the area impacted by your works and handing over new municipal assets to us for management. These items will need to be addressed prior to the release of any security held by us. Table 10.2 (below) provides an indicative guide to these steps.

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Table 10.2 - Worksite departure process / handover checklist

ITEM	DETAIL
1. Notify us of your intent to vacate the project site	If you have a Construction Permit Zone, this will allow us to schedule our works to reinstate local parking conditions, including: • parking signs, in-ground sensors, parking bay markings, parking meters, public trees in new or vacant tree plots You must not undertake these works.
2. Remove primary precautions / temporary protective structures	This may include the removal of your: • gantry • scaffold • hoarding Your use of public space for works (including traffic management) associated with removal of these temporary structures must be included in your permit.
3. Notify other authorities as required	Provide notification to asset owners and relevant authorities prior to any reinstatement work that affects their assets (particularly where long lead-times are involved), such as: • Department of Transport if major traffic control devices were modified • the responsible power authority if public lighting will require reinstatement or design and construction
4. Apply for our consent to work in the road	If reinstatement of municipal assets is required, you must apply for our consent for works (road works) to conduct the reinstatement

5. Remove any temporary items installed by you in public space	This may include removal of your: • temporary shoring (e.g. ground anchors) • worksite safety barrier screens • footings • bollards and sockets • gates • drainage modifications • concrete levelling pads • temporary tree protection
6. Remove any signs and signals that you installed in public space	Once footpaths can be reopened to the public, this may include removal of: • detour, works advisory and hazard signage • temporary pedestrian crossing facilities and line-marking • temporary traffic signals (with DoT authorisation, see item 3 above)
7. Reinstate, remove and construct vehicle crossings as required	This may include: • removal of any temporary vehicle crossings • reinstatement of any damaged vehicle crossings • construction of a permanent vehicle crossing
8. Reinstate road infrastructure as required	The extent of the reinstatement works must be determined in consultation with us. These works may include reinstating: • the roadway (re-sheeting) • road markings • kerb, channel and drainage pits • footpath, access ramps and tactile ground surface indicators • nature strips, median strips and irrigation systems (including establishment of plantings)
9. Notify us of the completion of your reinstatement work	This will allow us to schedule inspections as necessary to ensure municipal assets have been reinstated in accordance with our standards and specifications (this may include the requirement for CCTV survey and report of the final condition of nearby stormwater pits and pipes). To avoid fines and cost recovery, you must complete permanent reinstatement works within two months of your project works being complete. Your reinstatement works are subject to a defects liability period of 12 months (see 22.5.12 Warranty period)
10. Request the return of your security	Submit a request for security return via our website.

10.6.2 Reinstatement of our assets

(a) All assets must be reinstated to their original condition and configuration at the conclusion of your works, in accordance with plans and specifications first approved by us. Our engineering standard drawings and specifications show the construction details and materials that must be used for the reinstatement of our road infrastructure and can be viewed on our website.

(i) After you have reopened footpaths to the public, you must remove any temporary pedestrian crossings, reinstating the footpath, kerb, channel and roadway surface as required. You must contact us to arrange for the reinstatement of parking conditions (such as bay markings, signs, sensors and meters).

(ii) Permanent vehicle crossings should be installed and any temporary crossings that you installed to facilitate the project must be removed (see 23.6 for more information). If you elected to use an existing vehicle crossing and it shows signs of damage, you must reconstruct it to suitable specifications.

(iii) You must remove all temporary traffic management devices associated with the project (such as signs, signals and barriers).

(b) Reinstatement work conducted after the expiry of your works activity permit represents new work. If your permit has expired you must have a new consent for works (road works) from us to conduct this work in the road or other public space.

(c) If parking signs need to be removed or relocated in order for you to reinstate the area, you must contact us to do this – do not remove signs yourself. This includes parking signs affixed to temporary protective structures (such as hoarding, gantry or scaffold). After you notify us that signs are affixed to a temporary structure that will be removed, we will arrange our contractor to take down the signs.

(d) You must remove all other signs associated with the project. Installation sockets and fastenings must be removed and pavement surfaces reinstated. (See 15.8.1 Traffic control devices for information on installing and identifying long-term traffic management and works advisory signs).

(e) You must reinstate public lighting to our satisfaction and that of the responsible service provider, if any public lighting was changed to accommodate your project. Responsibilities vary depending on the location and type of lighting required to be installed. We will provide detailed requirements when determining the extent of reinstatement work required following your project.

(f) You must contact us to arrange the reinstatement of any nature strips or median strips (including underground irrigation systems). See 11.3.1 Maintenance and renewal of nature strips and median strips for more information.

(g) When you have completed all reinstatement works, we will inspect the site to determine whether reinstatement has been carried out satisfactorily. Where reinstatement has not been carried out to our satisfaction (for example, where the works are incomplete or sub-standard), we will either:

(i) direct you to repair the asset(s) before your security can be returned, or

(ii) if the reinstatement is not completed within the requested period, we reserve the right to arrange the works at your cost. This can result in the deduction of all costs incurred in the repair, replacement or reinstatement of any assets from your security (see 10.4.2 for more information).

(h) As part of our reinstatement inspection, we may require a new CCTV survey and report to assess the post-works condition of stormwater assets.

(i) In line with the Road Management Act 2004, reinstated assets have a warranty period of 12 months. If we determine your reinstatement to be defective within this period, you are legally required to repair it.

11. Public trees and green infrastructure

A significant focus for our Urban Forest Strategy is maintaining and increasing our tree canopy cover within the municipality. As well as making our city a beautiful place to live and visit, our trees play a crucial role in maintaining a healthy environment, helping to remove pollution and keeping our city cool.

Our green infrastructure plays a similarly important role by cooling, supporting plant and animal biodiversity and providing aesthetically pleasing surrounds for the community. Like many cities around the world, we recognise trees and other vegetation as critical urban infrastructure – equally important to how our city functions as transport networks, and particularly vital to community wellbeing.

Public trees and green infrastructure hold immense value. It is rarely possible to repair stressed and injured trees – protecting them must be a high priority for all your works activities.

11.1 Objectives

All projects and works, regardless of scale, should:

- identify and assess the potential impacts of all proposed works activity on public trees
- protect public trees from damage, preserving their long-term health and integrity
- protect and maintain nearby green infrastructure and ensure complete reinstatement of these assets as required.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

11.2 Public trees

This section outlines how work must be carried out in the vicinity of public trees to ensure their long-term protection, integrity and health, and applies to all trees in the municipality that we own or manage.

Public trees must be protected for the duration of your project as follows, and additional instructions specific to each precaution type can be found in the relevant sections of this Code (see sections 17 Hoardings, 18 Gantries and 19 Scaffolds and catch platforms for additional information).

11.2.1 General requirements

(a) All works near public trees must be carried out in accordance with our Tree Policy.

(b) Prior to starting any works, you must:

(i) identify and assess the potential impacts of the proposed works on surrounding public trees

(ii) plan the works and any associated structures in a way that ideally eliminates (or otherwise minimises) the need to prune public trees

(iii) exhaust all options to avoid removing public trees.

(c) If public trees are in the vicinity of your planned works, you'll need to establish a Tree Protection Zone (see 11.2.2 below) and prepare a Tree Protection Plan (see 11.2.3 below) prior to works commencing.

(d) Care must be taken to ensure that no damage is caused to tree trunks, roots, canopy or branches during works.

(e) Approval to remove a public tree is subject to our Tree Policy, which provides more detail about our public notification requirements and decision-making processes.

11.2.2 Tree Protection Zones

(a) In accordance with AS 4970 – Protection of trees on development sites, any other relevant minimum industry standard and our Tree Policy, a Tree Protection Zone (TPZ) must be established for any tree in the vicinity of your planned works. The TPZ must remain in place and fit for purpose for the duration of the works. AS 4970 explains how to calculate the radius of a TPZ.

(b) The TPZ is intended solely to protect the tree and the environment it is growing in – this area must remain clear of work activities, vehicles, equipment and debris. AS 4970 outlines the full list of activities that cannot occur within a TPZ.

(c) You must not modify a TPZ without consent from our arborist.

(d) If excavation is necessary within a TPZ:

(i) Boring is our preferred method for installation of underground services within a TPZ.

(ii) The extent or length of boring in the vicinity of trees will be determined by the TPZ.

(iii) Entry and exit pits for boring activities must be positioned outside the designated TPZ of each tree.

(iv) Boring must occur at a depth of at least 1000 mm below the surface.

(v) If boring is not possible, excavation must be by hand or by a non-destructive method such as hydro excavation at low pressure, with consent from our arborist.

(vi) All excavation including boring must be supervised by a suitably qualified arborist and carried out in accordance with a works methodology detailed in a Tree Protection Plan and approved by our arborist.

(e) If you propose to use a timber hoarding or temporary fencing around the TPZ as protective fencing, see 17.3.6 for requirements to be met.

(f) No part of a tree plot can be used for a pedestrian bypass around a worksite unless a suitable protection methodology is developed, in accordance with a suitably qualified arborist's recommendation and approved by us.

11.2.3 Tree Protection Plans

(a) Prior to works commencing, we require a Tree Protection Plan (TPP) that outlines how public trees will be protected for the duration of the works where any works:

(i) encroach a Tree Protection Zone (TPZ) as described in AS 4970, or

(ii) have the potential to negatively impact the viability of any public tree.

(b) Where this is the case, you must submit a TPP with your permit application(s), which has been:

(i) prepared by a suitably qualified arborist in consultation with the principal contractor or works manager

(ii) developed in accordance with AS 4970 and follows the layout of AS 4970 Section 5 (General, Tree Protection Plan, Pre-construction, Construction stage and Post construction).

(c) A single TPP is required for each development and is to cover all phases of demolition, excavation, construction and post-construction activity. The TPP measures will need to be site specific and designed to consider all other site conditions such as traffic flow, lines of sight and minimum clear footpath widths (see 15.7 Managing pedestrians, cyclists and vehicles).

(d) A TPP must include:

(i) Accurate site plans showing: the works zone, equipment and structures (for example, a hoarding or gantry) in relation to the public tree(s) and any documents or plans assessed by the TPP author (for example, a Traffic Management Plan).

(ii) The unique asset number of each affected tree, available online at our Urban Forest Visual.

(iii) A clear photograph of each public tree that may be affected by the works.

(iv) The general condition of each tree, including species, health, structure, useful life expectancy, diameter at breast height, canopy dimensions (overall height and north-south and east-west), Structural Root Zone (SRZ) and Tree Protection Zone (TPZ).

(v) Any specific defects, damage or defects evident within the tree prior to works commencing. This information must form part of a tree condition report (supplied within the TPP) and be supported by photographs.

(vi) An assessment of the impacts to public trees by the proposed works, including marked images of any pruning requested, along with an assessment of the percentage of proposed canopy loss.

(vii) Site-specific tree protection guidelines and necessary works methodologies to be followed through all phases of work.

(viii) The site-specific temporary tree protection measures being proposed, such as boxing of the tree plot, trunk or stem wrapping, tree plot covers or measures to minimise compaction.

(ix) A supervision schedule for the project arborist (with a minimum frequency of every two months), with a compliance checklist to be signed and dated by the arborist and the principal contractor.

(e) Your TPP must be approved by our arborist before works can commence. Once approved, it is your responsibility to appoint a suitably qualified project arborist and implement the TPP.

(f) Once any required tree protection measures are in place, we'll visit the site to inspect the tree(s) and ensure the protection measures are satisfactorily installed and fit for purpose. We may conduct additional site visits at any time during the works.

(g) The project arborist must regularly supervise the implementation of the TPP for the duration of the works. Depending on the nature and extent of the works, they may also be required to oversee all works activity near public trees for the duration of the project, especially if any excavation is permitted to occur within the TPZ.

(h) The principal contractor is responsible for the implementation of the TPP by all contractors and personnel on site, and for maintaining the tree protection measures in an optimal condition (for example, ensuring it remains free of bills, placards and graffiti – see 12.3.4 for details).

(i) You must notify our arborist immediately if a TPP is breached or where damage has occurred to public trees. This must also be documented by a suitably qualified arborist and referenced in the project completion report (see 11.2.5(d) for information on the project completion report).

11.2.4 Tree pruning

(a) After we approve a TPP and before the works commence, we will arrange for our contractor to undertake any approved pruning. We will carry out pruning in accordance with AS 4373 and costs may apply for any pruning. We will advise you of pruning costs in advance.

(b) Significant penalties apply for unauthorised pruning of public trees undertaken by anyone other than our contractor or a qualified person that we specifically authorise to carry out the work.

11.2.5 Tree protection security

(a) Once we approve your TPP, you will need to provide tree protection security in the form of a financial deposit or bank guarantee (a bond) before we issue you with a permit. The security amount will be held for the duration of the works and will be equivalent to the combined ecological and amenity value of the affected tree(s). We will advise you of this value before works commence.

(b) If your works adversely impact any public tree, we will issue an invoice or draw from a security as necessary to compensate for the cost of:

(i) any loss of amenity or ecological services, or

(ii) amelioration, rectification or replacement works determined as necessary by our arborist (such as pruning, soil de-compaction, irrigation, fertiliser application or tree removal and replacement).

(c) All rectification works will be undertaken by our contractors and invoiced at scheduled rates.

(d) When your works are complete, your project arborist must complete a final inspection and you must submit their project completion report and records of supervision of any works occurring within a TPZ.

(i) The report must document any tree damage, provide rectification or amelioration recommendations and contain the completed compliance checklist.

(ii) We must be satisfied that trees have been inspected and confirmed not to have been impacted by works before we release your security.

11.3 Green infrastructure

11.3.1 Maintenance and renewal of nature strips and median strips

(a) During the occupation of a site, you are responsible for maintaining the adjoining nature strip or median strip in a neat and tidy condition for the duration of the works. This includes mowing the grass, watering it (particularly if its access to rainwater has been compromised by the works or other structures in place) and keeping the nature strip free of litter and other debris.

(b) Nature strips and median strips must be reinstated back to their prior condition at the conclusion of works. The scope of reinstatement works will be determined as part of our review of your engineering design drawings.

(i) At the conclusion of works, any security held against the project, stage of works or works activity permit will not be returned until the nature strip, median strip and any underground irrigation systems have been inspected and if necessary, repaired. See 10.4.2 Security deposits and bonds for more information on security.

(ii) Any works required to repair damaged irrigation must only be carried out by our approved contractors.

(iii) If works are required to repair the nature strip or median strip, there are two options:

- Our preference is that our contractors undertake the required work on your behalf and invoice you. We regularly market test our contractors' rates to ensure they are competitive.

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- Alternatively, if you wish to oversee these works yourself, you must use the services of a reputable landscape or horticultural contractor. The area must be de-compacted, made level and only soils meeting Australian Standards are to be used. The grass species to be used is kikuyu instant turf unless otherwise agreed. The grass must be watered and maintained until established, or for a minimum of six weeks. A handover of the nature strip or median strip back to us must occur after the establishment period.

(iv) If the previous nature strip treatment is no longer fit for purpose (for example, where a site has been redeveloped and a grass nature strip is no longer suitable), you should contact us to discuss reinstatement options.

11.3.2 Access to sunlight

(a) The existing level of sunlight must be maintained to all green infrastructure. For example, a gantry or scaffold must not block light to trees, shrubs, grassed areas or decorative planter boxes. If this is not possible and damage occurs as a result, we will invoice you for the cost of replacing the affected green infrastructure.

(i) Decorative planter boxes (typically found in the central city) can be removed or relocated for the duration of the works if necessary, at your cost. You must not move these yourself – instead, you must notify us in advance and we will arrange our contractor to carry out this work.

11.3.3 Access to open spaces and grassed areas (including median and nature strips in the road)

(a) If you require access to an open space that we manage (such as a park or garden), you'll require our approval prior to accessing the area and commencing works. This includes any vehicles crossing over grassed areas (for example, if you need to drive over a median strip or nature strip to access the works location). Our approval will be conditional upon you:

(i) protecting the area during the works (for example, by placing track matting down prior to driving over the area) and

(ii) repairing or reinstating the area back to its prior condition.

(b) When conducting works nearby or adjacent to grassed areas (for example, if the worksite adjoins a park), you must not use the grassed area to facilitate works activity without our prior agreement. You must first exhaust all other options to contain works activities within the site boundary.

12. Worksites

A range of general safety and amenity requirements apply to every worksite.

12.1 Objectives

All worksites should:

- maintain a level of air quality that sustains wellbeing and meets community expectations
- manage dust, keep sediment on site and prevent contamination of stormwater
- manage all waste on site via a resource recovery and waste management plan
- be clean, tidy and secured against unauthorised entry from public and private space.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

12.2 Project information board

12.2.1 You must display a project information board prominently on the site in a position that can be readily accessed by the public throughout the works. The board must communicate the key details of the works and responsible personnel and is typically displayed on the hoarding. In addition to requirements in the Building Regulations 2018 regarding provision and display of building permit information, the board must also include:

(a) the name and address of the project site

(b) 24-hour emergency contact telephone numbers, preceded by “For any enquiry, complaint or emergency relating to this site at any time please contact…” to enable complaints to be managed by the principal contractor in the first instance

(c) the estimated project completion date

(d) security measures employed at the site.

12.2.2 See 16.7 Signage for advice on promotional signage and 17.3.4 Signage and attachments on the hoarding for advice on displays allowed on a hoarding that do not require planning permission.

12.3 Site cleanliness

12.3.1 All worksites must be kept neat and tidy to maintain public safety and local amenity.

12.3.2 Comprehensive guidance on complying with environmental best practice for building works is available from the Environment Protection Authority (EPA) Victoria.

12.3.3 Unless in accordance with a permit, all areas of public space (including footpaths, nature strips, vehicle crossings, parking areas, roadways and dividing areas) must remain clear of all plant, equipment and materials.

12.3.4 You are responsible for the removal of graffiti and posters from structures (such as hoarding and scaffold), plant and equipment located in or visible from public space. Graffiti and posters should be removed within five business days of the item appearing, or within 24 hours if it could be deemed offensive.

12.4 Waste management on site

12.4.1 You must take steps to ensure that waste cannot be discharged from the site in an uncontrolled manner, often caused by wind, water or vehicle movement. These steps may include:

(a) self-closing lids fitted to any bins placed outside to prevent waste becoming airborne

(b) covers applied to any waste storage areas that contain materials that could become airborne

(c) sediment traps installed downslope of any stockpile or storage area where materials could be transported by surface water.

12.4.2 You must develop and implement a resource recovery and waste management plan for the project, including:

(a) strategies for the sourcing, quantifying, transport, storage, use, collection and processing of all materials to minimise waste and maximise the potential for their re-use and recycling (including building materials, packaging and consumables)

(b) provisions for collection and recycling of workers' daily rubbish, including cigarette butts.

(c) procedures for collection and sorting of each type of recyclable material to avoid cross-contamination

(d) procedures for regularly collecting, securing and temporarily storing all waste on site until it is removed

(e) location of waste storage facilities away from all drainage paths to prevent any pollution of the stormwater system, and covering waste storage facilities if they contain any material capable of becoming airborne

(f) procedures for removing waste materials, including hazardous or dangerous materials.

12.4.3 Removal of any dangerous or hazardous waste materials (such as asbestos) from the worksite must comply with WorkSafe Victoria codes of practice and the relevant regulations and standards.

12.4.4 Burning off of any kind on site is prohibited.

12.4.5 Waste must be managed and contained within the boundaries of the site until it is being collected for removal.

(a) Any waste accumulating within a hoarded off area of public space must be removed on daily basis and the surface pavement maintained in a clean condition.

(b) Waste caught against site fencing must be regularly removed and stored for collection.

(c) Any waste (such as soiling or spillage) in the road must be cleaned up immediately. You should establish a process and schedule for regular inspection and cleaning of the roadway, footpath and vehicle crossings. See 12.11 for information on controlling dust and mud from vehicles.

(d) Any cigarette butt litter generated by your works activity is your responsibility. You should:

- provide cigarette butt bins within the site

- make staff and contractors aware of the location of the nearest public cigarette butt bins
- collect and dispose of butts littered outside your site boundary as part of regular inspection and cleaning of public and private space adjacent to the site.

12.4.6 Waste collection and removal from the site must only occur during permitted hours. See 25 Skips, bins and containers for more information on the use of skips and containers to collect site waste.

12.5 Access to bins and for waste collection

12.5.1 You must maintain access for pedestrians and vehicles to all bins stored, affixed or collected in or via the road.

12.5.2 If bin storage and collection is not possible, you must provide an alternative bin storage and collection arrangement following consultation with businesses, residents and all waste collection companies servicing the area. See 6.5 Consultation for more information.

12.5.3 For us to clean public spaces, we require a minimum 1500 mm clearance between fixed objects for our street sweepers to operate. This is independent of the requirement for minimum clear footpath width for pedestrians (see 15.7.1(d)). Where site constraints prevent clearance for our street sweepers being provided in some areas (such as between elements of temporary structures):

(a) you are responsible for regular inspection and cleaning of debris, litter and cigarette butts by dry sweeping

(b) you must not wash the road or footpath with free-flowing water.

12.5.4 You must maintain a minimum 1000 mm clearance to all types of public litter bins at all times for bin emptying, cleaning and servicing. Temporary structures, equipment and materials are not to be installed or placed next to bins. Access to and operation of bin enclosure doors must not be impeded.

12.6 Fire safety

12.6.1 Flammable materials must not be stored within 3 metres of adjoining buildings.

12.6.2 All flammable liquids (including refuelling tanks for on-site plant such as tower cranes) must be stored within the site boundary, in a fire proof container placed on a spill tray.

12.6.3 You should ensure that precautionary measures are adopted to ensure that the fire safety or spread of fire characteristics of any temporary structures is provided.

12.6.4 Temporary structures proposed for installation in public space (such as hoarding, gantry and scaffold) must be assessed to ensure they provide for the operational access needs of fire rescue and other emergency services. See 6.3 Identifying stakeholders for more information on consulting with key agencies.

12.6.5 Fire risk assessment and mitigation for your project must include any measures necessary to prevent fire spreading to adjoining properties (for example, via a gantry, shed, scaffold or materials storage area).

12.7 Public space (road or footpath) occupation

12.7.1 You must have a permit to occupy and use any space on the road or footpath.

12.7.2 You will need our consent to conduct work involving any form of excavation or installation in, on, under or over a road or footpath. See 22.5 Consent for works (road works) for more information.

12.7.3 You may be required to consult and/or notify stakeholders who could be impacted by your works activity in public space. See 6 Stakeholder engagement for more information.

12.7.4 You must ensure all members of the public can readily identify, avoid and safely and comfortably bypass any permitted works activity area in public space – including after hours. Suitable barriers must be provided around activities or site conditions posing a hazard to the public. See 15 Traffic management for more information.

12.8 Materials stored on site

12.8.1 Unless in accordance with a permit, all building materials must be stored on your site and not in public space (including any area of the road or footpath). Materials must not be stored in a Tree Protection Zone. For road works conducted by utilities, public transport providers and third parties, see 22.5.6 Vehicles, plant, equipment and materials for more information.

12.8.2 All materials stored on site must be adequately secured to prevent uncontrolled dispersal around the site and into public space or stormwater. See 12.9 Air and dust management, 12.10 Stormwater and sediment control and 22.3.5 Dust and mud for more information on containing and managing dust, mud, and materials such as sand, soil and concrete.

12.8.3 Any dangerous or hazardous materials (including all fuels) must be stored in a secure location on site and not in public space. The location of storage areas, quantities of materials stored, signage, labelling and procedures for secure access, containment and handling must comply with WorkSafe Victoria codes of practice and the relevant regulations and standards.

12.8.4 Polystyrene building and packaging materials must be delivered, unpacked, stored and handled on site in a manner that prevents any particles from becoming airborne and entering the public space, stormwater or waterways. Particular attention must be paid to this on days of high wind.

12.9 Air and dust management

12.9.1 You are responsible for ensuring that a level of air quality is maintained in and around your site that sustains well-being and supports local amenity and aesthetic enjoyment and meets community expectations. You should consider the impact of airborne particulate and pollutant concentrations on the local community is often a result of a number of nearby works projects occurring simultaneously. We expect the building industry to implement all feasible and reasonable measures to maintain ambient air quality in line with the Environment Reference Standard.

12.9.2 Preventing the generation and emission of airborne particulates and pollutants is the best approach to limiting the impact of your activities on air quality. Your approach to air quality management should encompass prevention, minimisation and management. All controls should be fit for purpose and installed and maintained in accordance with manufacturer's specifications, and procedures implemented for regular monitoring of their effectiveness.

12.9.3 In planning your project, you should select an appropriate site layout, work methods, plant and equipment to prevent, minimise and manage sources of excessive dust and any impacts on air quality in the surrounding area. These include:

(a) airborne dust caused by vehicles entering and leaving the site must be minimised (see 12.11 below for detailed requirements)

(b) if materials must be cut on site, this must occur in designated areas away from property boundaries and public space. Localised dust suppression measures must be used to prevent the emission of dust beyond the worksite

(c) suitable procedures and schedules must be implemented if dust is to be controlled on site using watering down methods, which should use recycled water wherever possible

(d) dumping and double-handling of loose materials (such as sand, soil and concrete) on site should be minimised

(e) you must employ methods to prevent the uncontrolled movement of any loose materials within or beyond the site via the effects of wind and water (such as keeping stockpiles in designated locations and using wind barriers, covers, binders or stabilisers, watering down and sediment traps). These methods must remain effective when the site is unattended.

(f) you should consider installing filters on any air intake vents on adjacent buildings located in close proximity to the site, in consultation with the adjacent property owners

(g) exhausts and ducts from plant and equipment must be located and directed away from public space, air intakes, windows and enclosed areas.

(h) plant and equipment must be correctly maintained and regularly serviced in accordance with manufacturer's directions to ensure emissions remain within their published specification (to prevent excessive smoke, pollutants, toxic fumes or odours from being emitted). You must keep copies of service and maintenance logs available on site to document your compliance with this requirement.

12.9.4 Additional guidance on management of diesel exhaust emissions is available from Safe Work Australia.

12.9.5 You should regularly monitor the air quality at sensitive locations close to your worksite (such as nearby footpaths, private outdoor spaces, outdoor dining areas and residential accommodation) to ensure your air and dust management measures remain effective.

12.9.6 If we determine at any time that your project is contributing to air quality that has become a nuisance we may direct you to undertake air quality testing and monitoring to ensure continued compliance with this Code.

12.10 Stormwater and sediment control

12.10.1 You are responsible for preventing any contamination of or damage to stormwater assets, waterways, public trees and green infrastructure, and ensuring that sediment is retained within the site.

12.10.2 In planning your project, you should select an appropriate site layout and work methods to prevent, minimise and manage sources of water contamination and uncontrolled discharge from the site.

12.10.3 Residues and wastes generated by concrete, brick, paving or asphalt cutting works (including loose material such as crushed rock from pavement base layers) must be prevented from entering the stormwater system and from damaging public trees and green infrastructure.

(a) On site mixing of concrete, and cutting of bricks and pavers must be carried out in designated areas that are capable of containing any waste and excess water.

(b) Mortar must not be mixed in gutters, drains or any location that could drain to the stormwater system.

12.10.4 Downstream stormwater pits must be protected from sediment using gravel sausages as a precautionary measure on all sites. Gravel sausages should:

(a) comprise a geotextile sleeve filled with 25-50 mm gravel to 150 mm height

(b) be placed across stormwater pit openings, located against the kerb on the upslope side of the pit and extending beyond the width of any grated entry

(c) maintain a 100 mm gap between the sausage and the front of the pit

(d) be inspected and cleaned regularly, with any build-up against the sausage collected and disposed of on site.

12.10.5 Stormwater channels must be kept clear of obstructions at all times. Other than 12.10.4 above, you must not block any stormwater channel with any object permitted to be placed on the road.

12.10.6 Stockpiling of loose materials should be minimised. If stockpiling is unavoidable, this should be located in a designated area on site, away from drainage lines. Stockpiles must be covered when not in active use, and methods to reduce uncontrolled transport (such as polymer stabilisers, watering down and sediment traps) employed at all other times.

12.10.7 Materials spilt in public space must be collected and removed immediately using dry sweeping.

12.10.8 Equipment used for transporting or handling materials (such as trucks, skips or containers) must not be washed in public space or into any drain.

12.10.9 Free-flowing water from hoses must not be used in public space, to prevent polluted water from entering the stormwater system or impacting public trees or green infrastructure.

12.10.10 To discharge any water from the site you must comply with Environment Protection Authority Victoria regulations and any requirements of the relevant authority:

- we are the authority for the municipal stormwater system
- the local sewerage network is managed by the responsible water authority
- Melbourne Water is the authority for major wastewater and sewerage drains.

12.10.11 You must have our consent to temporarily discharge water (such as drainage, flushing, wash-down, recycled or other waters) into the municipal stormwater system during building works. We do not permit the discharge of groundwater to the municipal stormwater drainage network.

(a) In conjunction with a stormwater plan in your CMP to detail how waters will be managed on site, you must have an approved Legal Point of Discharge to connect and discharge to municipal drains.

(b) Once you have approval for Legal Point of Discharge, only water containing sediments can be discharged to the municipal stormwater system after being filtered on site to less than 50 mg/L total suspended solids.

(c) You must not allow the discharge of any mud, sullage, scum or waste material (such as concrete slurries or chemicals) into the municipal stormwater system.

(d) Water containing pollutants (including more than 50 mg/L suspended sediment, oil, diesel, chemicals or debris) must not be allowed to enter the municipal stormwater system.

12.10.12 You must have approval from the relevant retail water authority (such as Greater Western Water or South East Water) to discharge polluted waters (referred to as trade waste) to the sewerage system. Information on trade waste acceptance criteria and the requirements for written permission or consent is available from the relevant authority.

12.10.13 If site waters contain pollutants that cannot be treated on site and the water is not permitted to be discharged to the sewerage system, a liquid waste contractor may be required to collect the contaminated water for disposal at a licensed treatment facility.

12.10.14 You must notify us immediately if a pollution incident occurs.

12.10.15 Any agricultural drains must be located within the property boundary and must drain into the property.

12.10.16 For longer-term projects of 12 months or more, we may direct you to install devices on stormwater pits to measure sediment and water quality discharge throughout your occupation of the site to ensure compliance with this Code.

12.10.17 We may inspect the site at any time to ensure compliance with this Code (including inspecting our stormwater assets, points of discharge and sediment control measures). The relevant water authority may also inspect the site to ensure compliance with regulations and any conditions of permission or consent (including taking samples of trade waste and verifying the maintenance and operation of treatment devices).

12.10.18 Additional guidance on stormwater and sediment control is available from Melbourne Water.

12.11 Vehicles accessing the site

12.11.1 Vehicles must only move between a public road and adjoining land (including a building site) via an approved, suitably designed and constructed vehicle crossing. See 23 Vehicle crossings for our requirements for vehicle crossings.

12.11.2 See 17.4.4 Personnel and vehicle access gates for our requirements for site vehicle access gates.

12.11.3 See 15.7.7 Managing heavy vehicles for guidance on safely moving heavy vehicles in and out of the site.

12.11.4 You must prevent dust and mud being transported from the site and deposited in the road, by ensuring the wheels and undercarriage of all vehicles departing the site are clean and that all loads are covered.

(a) Site entry points and on-site traffic/haulage routes should be stabilised with surfaces (for example, bitumen or crushed rock) to assist in the removal and capture of soil and mud from truck wheels. Haulage routes should be watered down using recycled water as necessary to prevent airborne dust from vehicle movements.

(b) Rumble grids should be installed within the site near exit points to break caked mud away from truck wheels. Where installed, any grid and wash down area (see (c) below) must be located at least 10 m in advance of crossings to prevent the footpath and crossing becoming dirty. Grids must be cleaned regularly (using recycled water).

(c) Designated wash down areas should be established within the site adjacent to rumble grids where dust and mud can be removed from vehicles and equipment. Washing should be done using hand tools and high-pressure water cleaning devices (using recycled water). Washing is particularly necessary during wet conditions where the action of a rumble grid will not be sufficient to dislodge materials attached to the exterior of vehicles.

- These areas should be designed to allow for the controlled collection and processing or re-use of the waste water (such as direction to a sediment trap or sedimentation basin).
- A mountable berm immediately adjacent to the site boundary may be necessary to prevent drainage from the wash down area discharging onto the crossing, footpath or roadway.

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(d) Trucks removing any loose material (such as soil, dust or concrete) from the site should have loads covered as soon as loading is complete to prevent material escaping via wind action or turbulence while waiting or driving on site.

(e) Trucks carrying excavated material must have their loads covered before traveling on municipal roads.

12.11.5 All concrete wash out procedures (for example, cleaning chutes of ready-mixed concrete trucks and hoppers of pump trucks) must take place on site and prevent alkaline discharges to stormwater.

12.11.6 Vehicles, plant and equipment servicing the site from the road (such as concrete trucks, pumps and equipment) must not be washed down in public space. These should be washed down either within a designated area on site or at a suitably designed and operated depot washing facility.

12.11.7 The road, public space and private property should all be regularly monitored and procedures implemented for the clean-up and removal of any build-up of dirt or mud, at a minimum, once daily following the conclusion of site activity.

(a) There is no minimum radius for this requirement (for example, any trail of soil or debris on the roadway should be followed and cleaned).

(b) Clean-up must be done using dry sweeping methods.

12.12 Site security

12.12.1 You must secure your building site and prevent the public from accessing any works activity area, including when your site is unattended or left vacant between stages of works (for example, after vacation by a demolition contractor and before excavation or construction commences).

12.12.2 If work is occurring within an occupied property (such as refurbishment, renovation or addition), building occupants must be prevented from accessing works activity areas.

12.12.3 Signage specifying any security measures must be included with the project information board (see 0

12.12.4 You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

12.12.5 Project information board).

12.12.6 Security measures must ensure your site's public precautions (such as hoarding and gantries) do not provide unauthorised access to or from adjoining property.

12.12.7 Security measures may include locks, surveillance, lighting and camera systems.
If you cannot fully secure your site, you should consider the use of a third party security service to prevent unauthorised access.

13. Hours of building works

13.1 Permitted hours of building works

13.1.1 As outlined in our Activities Local Law 2019, building works can only be carried out in the municipality between the hours of:

(a) 7am to 7pm Monday to Friday

(b) 8am to 3pm on Saturday.

13.1.2 You must have an out of hours permit to conduct any building works and related activities outside of the hours indicated in 13.1.1 above. This includes activities such as:

- general building works
- internal works
- setting up or packing up traffic management devices
- using personnel and materials hoists
- maintenance (including cleaning) of plant and equipment.

13.1.3 We do not support works impacting access to retail precincts (for example, proposals for roadway or footpath closures) during December. This is to support the retail economy during its most important period. See 15.6 Peak times for more information.

13.1.4 You must provide access to utilities to undertake service provision works within the hours in 13.1.1 above.

- Utility works (electricity, water and gas) and consent for works (road works) related to your building project must not be relegated to being undertaken out of hours and should be scheduled within our permitted hours of building works unless absolutely necessary.

13.2 Out of hours permits

13.2.1 We place strict controls on our limited approval for some building and related works activities to be conducted outside our permitted hours. Out of hours permits are issued solely at our discretion and their availability is not guaranteed.

(a) We know that our approvals of out of hours works lead to increased complaints from residents, so we aim to limit the number of permits issued (to only where absolutely necessary). The community needs appropriate respite from constant building noise. You should consider that:

- with lots of construction activity happening in our municipality at any one time, yours may not be the only site near someone's home or workplace
- your out of hours works might not be noisy, but site occupation can still create nuisance that is experienced in other public and private spaces (such as noise from setting up tools or machinery, radios or music being played, site personnel yelling out to one another, loud vehicles parking or delivering goods, or crane lights left on overnight).

(b) Falling behind on your works or project is not a compelling reason for us to approve an out of hours permit. Your estimation of the time taken to complete your project should always allow for delays – including delays caused by periods of adverse weather.

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13.2.2 We will only consider your application for an out of hours permit if:

(a) the works cannot occur during or be wholly contained within normal working hours

(b) the works require over-sized loads/vehicles that cannot be transported through the municipality during our permitted hours of work

(c) Department of Transport will not permit the closure of declared roads at any other time

(d) the nature of the work makes it more desirable to be undertaken outside of normal working hours (for example, to minimise potential risk or nuisance to the public)

(e) you can demonstrate your understanding of community expectations and the needs of the local area and that the nature, location and duration of work will not unreasonably impact local amenity.

13.2.3 To apply for an out of hours permit, you must:

(a) provide us with enough time to consider your application (information on the lead time required for permit applications is available on our website)

(b) explain why you need to perform the proposed works out of hours

(c) provide notification to stakeholders and supply a copy of this notification with your application (see 6.6 Notification)

(d) obtain and supply a Department of Transport MoA and a NHVR permit (as required) for the transport of any over-dimensioned vehicles or superloads

(e) submit details of the noise and vibration mitigation measures you will implement (see 14.3 Noise and vibration for more information)

13.2.4 Likelihood of permit approval

(a) Applications that have a **higher** chance of being approved:

(i) Quieter internal works that are not audible from adjacent public or private spaces (such as plastering, carpet laying, painting, internal lift shaft works, line marking works) or a large vehicle delivery of a short duration.

- If approved, you must still mitigate other noise sources from the site (for example, from radios, raised voices, setting up tools, or goods being delivered), particularly if residents live nearby.

(b) Applications that have a **limited** chance of being approved:

(i) There are some activities that, while they create some noise, we understand may need to be undertaken out of hours for a range of reasons. This may include needing to reduce the impact to busy roads or peak hour traffic flows. Table 13.1 (p.64) indicates the scope of out of hours approval we can consider for specific activities:

Table 13.1 - Out of hours approval limitations on specific activities

ACTIVITY	OUT OF HOURS APPROVAL
Crane jumps or hoist maintenance	7 to 8pm Monday to Friday 3 to 6pm Saturday
Crane or hoist installation/removal	3 to 6pm Saturday 9am to 5pm Sunday
Gantry or hoarding installation/removal	3 to 6pm Saturday 9am to 5pm Sunday (only if Saturday is also utilised)

(c) Applications that are **extremely unlikely** to be approved:

(i) We do not support noisy works being undertaken out of hours. This includes activities like:

- excavation
- demolition
- concrete cutting
- jack hammering
- placement and collection of skips
- operation of goods and personnel hoists
- installation of lift core formwork
- perimeter screen jumping or alterations
- façade or glass installation.

(ii) We do not recommend applying for an out of hours permit for these kinds of activities – instead, plan your works to ensure you can accomplish these activities during our permitted hours of work (see 13.1.1 above).

13.2.5 If we issue you with an out of hours permit, you must adhere to the permit conditions. If an officer determines there has been a breach, you will have to cease work, your permit will be suspended or cancelled and you may receive an infringement notice carrying a financial penalty (see 2.5 Enforcement of this Code for more information).

14. Noise and nuisance

14.1 Objectives

All works activity should:

- not negatively impact the health and wellbeing of the local community
- minimise the generation of pollutants and prevent stormwater contamination
- use all available controls to minimise the impacts of noise and vibration
- return occupied public space to the community as soon as practicable.

14.2 Nuisance

14.2.1 We are committed to preserving the amenity of our municipality, particularly in residential areas, by preventing nuisances caused by building-related works activities. Part 9 of our Activities Local Law 2019 deals exclusively with this objective and includes requirements:

(a) to notify us of your intent to carry out building works, allowing us to assess safety and amenity considerations before works commence

(b) to restrict the hours during which building works can occur, to preserve neighbourhood amenity and protect the health and wellbeing of the local community (see 13.1 Permitted hours of building work for more information)

(c) for the wheels and undercarriage of all vehicles leaving building sites to be clean, preventing slip hazards on footpaths and keeping the road clean (see 12.11 Vehicles accessing the site for more information)

(d) for building works not to create nuisance (for example, caused by the emission of dust, waste, water, odour or gas beyond the site (see 12 Worksites), or by noise or vibration exceeding prescribed levels)

14.2.2 Nuisance can also be caused by temporary structures, excavations or obstructions in public space related to building works, where they remain in place for an unreasonable period after their purpose has been accomplished.

(a) Items such as concrete slabs, bollards, sleeves or signs in the road associated with Construction Permit Zones should be removed and the area reinstated as soon as practicable after their role in works activity is complete.

(b) Wherever practicable, you should aim to reduce your public space requirement as the needs of the project change, removing any unused installations and safely reopening space to the community. For example, removing traffic diversions after hours when they are not required.

14.3 Noise and vibration

We place strict controls on the noise and vibration caused by building and works activities, and investigate public complaints related to these issues.

Although your project may only take place over a fixed period of time, you should consider the impact of noise on the local community is often a result of a number of nearby works projects occurring simultaneously. We expect the building industry to implement all feasible and reasonable measures to control noise, and to consult with the community to keep noise levels within an acceptable limit.

14.3.1 You are responsible for consulting with local stakeholders and minimising the impact of noise and vibration from your works activity on nearby public and private spaces, to preserve local amenity, protect adjacent buildings and structures and meet community expectations. See 6 Stakeholder engagement for more information.

14.3.2 Your building project must comply with our Noise and Vibration Management Guidelines, which set out our detailed requirements for managing noise and vibration from all building activity and provide a measurable standard (via prescribed levels) of what is acceptable.

The guidelines also include key noise management practices for building projects, such as:

- establishing good working relationships with stakeholders via community consultation
- sensitively and responsively handling and resolving complaints
- scheduling noisy works to avoid sensitive times (see 14.3.3 below) and provide respite periods
- implementing universal work practices to prevent, minimise and manage all sources of noise
- considering activity noise at all stages of the project, and selecting appropriate methods, plant and equipment to reduce noise and vibration
- planning the site layout and operations to limit the noise generated on site, and to distance and shield sensitive areas from noise sources.

14.3.3 Within our permitted work hours (see 13 Hours of building work) and any hours indicated on your permit or our written consent, you should plan your works giving consideration to locations, times and days when noise and vibration (even within prescribed levels) would have an increased impact on the community, scheduling quieter works where it is possible to do so. These include:

(a) *sensitive zones* – nearby properties or land uses where noise or vibration would be more likely to have additional impact, including residential buildings, homes, hotels, schools, hospital wards and law courts. Table 14.1 (p.67) shows how our Noise and Vibration Management Guidelines identify sensitive zones.

(b) *sensitive times* – times of day where particularly noisy works would have additional impact, such as first thing in the morning from 7am to 9am, or on weekend mornings where the community expects rest and respite

(c) *sensitive days* – particular days such as public holidays or days when recognised public events are held where noisy works would have an additional impact on amenity.

Table 14.1 - Noise-sensitive zones†

ZONE	LAND USES	TYPICAL SENSITIVE PERIODS	LIKELY AREA FOR CONSIDERATION
Sensitive Zone 1	Residential buildings, homes, hotels and motels	7am-9am, Mon-Fri 8am-10am, Sat-Sun	Within 200m from site boundary
Sensitive Zone 2	Crèches, schools, hospital wards, nursing homes and other noise sensitive areas (such as law courts)	Case specific, will require consultation with the affected premises	Within 100m from site boundary
Sensitive Zone 3	Office buildings	Will generally be equally sensitive during business days (9am-5pm, Mon-Fri)	Within 50m from site boundary
Sensitive Zone 4	Restaurants or cafes	12pm-2pm for lunchtime trade	Within 50m from site boundary

† From City of Melbourne Noise and Vibration Management Guidelines

14.3.4 You must select, control and schedule the use of methods, plant and equipment that could be considered to be noisy works, to minimise their impact. All noise has the potential to cause nuisance via its level, character, duration or timing. These include noise from demolition activities (such as jack hammering and breaking), piling, compacting, truck-mounted cranes, loading skips, electric tools and vehicles (reversing beepers).

14.3.5 Because of excessive nuisance caused by noise and/or vibration associated with specific construction methods and activities:

(a) Piles must not be impact driven. Installation should use continuous flight auger or boring methods.

(b) Wherever possible, you should employ alternative methods to jack hammering or breaking to achieve demolition tasks (such as cutting and/or lifting). Where practicable, you should aim to remove larger components from the site to be broken down at a designated facility (reducing the associated on-site noise and dust).

(c) Site vehicles and mobile plant should be fitted with broadband reversing alarms in preference to reversing beepers, localising the audible alerts to the area immediately behind the vehicle.

14.3.6 If we determine at any time that your project is generating noise or vibration that has become a nuisance (due to its level, character, duration or timing) we may direct you to undertake acoustic or vibration testing and monitoring to ensure continued compliance with our Noise and Vibration Management Guidelines.

14.3.7 Works occurring in the road – conducted by utilities, public transport providers or third parties – should be planned to minimise the impact of noise on sensitive zones (see 14.3.3 above).

In providing our consent for works (road works), we may limit activities to specific hours (including night-time hours). Consideration is given to the particular requirements of the works (such as road closures, planned power outage or activities that would present a significant disruption or risk to daytime road users). We also consider the combined impact of all works in the area on local stakeholders.

For works in the road:

(a) activities must be undertaken according to the hours and conditions specified in our consent for works (road works), unless they are emergency works

(b) all plant and equipment should have noise suppressed by the best practical means using current technology and should be maintained to the manufacturer's specification (including exhaust mufflers and noise-suppression devices)

(c) within sensitive zones

- you should select the tool with the lowest noise reading that meets the requirements of the job
- pneumatic tools should be fitted with an effective silencer on their exhaust port
- you should consider the use of electric cranes.

14.3.8 Additional guidance on construction noise is available from the Environment Protection Authority (EPA) Victoria.

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15. Traffic management

15.1 Objectives

All traffic management should:

- ensure a safe environment for all road users
- maintain access to properties
- provide for the safe, accessible and convenient movement of pedestrians
- prioritise pedestrians, public transport and cyclists
- support vehicle access in accordance with the on-road vehicle priority hierarchy (shown in Figure 15.2, p.71)
- minimise disruption to existing uses of public space.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

Your traffic management strategy must meet requirements for access and accessibility. You should read this section in conjunction with section 8 Access and section 9 Accessibility to be aware of our detailed requirements.

15.2 The road and road users

Considered traffic management strategies are critical to ensuring public safety and amenity around activities occurring in public space or impacting road users. Good traffic management aims to maintain the functions of the road (Figure 15.1, p.70) and the needs of all road users (Figure 15.2, p.71), while safely and efficiently facilitating the needs of building and works activity.

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Figure 15.1 - The road

adjoining land		
the road	**non-roadway** located between the street alignment (to adjoining land) and the roadway	footpath
		nature strip
		kerb
		channel
		vehicle crossing (may overlap portions of non-roadway elements above, connects adjoining land to the roadway)
		in-road tree plot
	shared zone area designated by 'Shared Zone' signs, shared by pedestrians, bicycles and vehicles, where pedestrians retain right-of-way	shared zone (spans the roadway elements below)
	roadway area of road developed primarily for the driving or riding of motor vehicles	parking area / parking bays
		bicycle lane
		bus lane
		shared lane, traffic lane(s)
		tramway
		dividing area(s)
		formal pedestrian crossing (spans roadway elements above)

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Figure 15.2 - Road users

pedestrians* including children, people with disabilities, people using mobility aids or assistance animals and the elderly * require a continuous accessible path of travel within all spaces open to the public	using a mobility device (wheelchair, powered wheelchair, mobility scooter, walking frame, cane)
	with assistance (person, animal)
	on foot
	on scooters
bicycles cyclists of all ages, experience and skill levels, with varying understanding of the Road Rules	human-powered
	motor-powered
vehicles of varying mass, width, height, swept path, acceleration, braking distance and field of view for the driver	**on-road vehicle priority hierarchy***
	high priority
	emergency vehicles
	public transport
	disability access vehicles
	destination freight / heavy, service and waste collection vehicles
	car share vehicles
	resident vehicles
	hire vehicles (taxi, ride share)
	visitor vehicles
	motorcycles
	single-occupant commuter vehicles
	through traffic
	low priority

* City of Melbourne Transport Strategy 2030

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15.3 Traffic impact

Traffic impact can be classified as short-term (ranging from one day to four weeks), or long-term (lasting four or more weeks).

We manage short-term traffic impacts via the permits required for each activity you undertake in public space during a specified period (see 15.9 TMPs and short-term traffic management for details). You apply for a permit, and submit a Traffic Management Plan (TMP) if your activity will require the full or partial closure of any part of the footpath or roadway. As you progress through the stages of a major building project, you will need to apply for a series of these activity permits.

We manage long-term traffic impacts of major building projects via Construction Traffic Impact Assessments (CTIAs). The CTIA is a conceptual, high-level proposal for how staged construction activities will interact with public space, roads and road users (see 15.10 CTIAs and long-term traffic management for details). Our approval of your CTIA is an agreement on the proposed strategies for short- and long-term traffic impact management related to the life of your building project. Your CTIA should also include individual TMPs for major short-term activities such as the installation or removal of temporary protective structures.

All traffic management strategies should consider the possible impacts on and interactions with all road users when public space or assets are occupied, modified or impacted by building activity.

Table 15.1 (p.73) explains whether your activity will require the preparation and submission of a TMP or CTIA.

Table 15.1 - Traffic impact management

TMP				
For	**You'll need to**	**If you plan to**	**Content**	**Purpose**
Short-term activity (lasting up to 4 weeks)	Apply for a permit, and submit a Traffic Management Plan (TMP) See 15.9.1	Undertake a short-term component from a CTIA (such as installing a hoarding) or a one-off activity not related to a larger building project (such as operating machinery on the footpath)	For full details of what to include in your TMP, see 15.9.1 (p.95)	The TMP should set out your proposal for the safe and efficient closure and occupation of space in the road (ranging from an area of the footpath to entire roadway lanes) to facilitate work.
High-impact non-building activity (short or long-term)	As above	Typically this category relates to utilities conducting works in public space with a high impact on traffic (such as works causing significant disruption to property access , or requiring long-term closure of parts of the road)	As above, including a reasoned works management plan.	As above, including consideration of the metropolitan, municipal and local transport, access and road use impacts of your activity.
CTIA				
For	**You'll need to**	**If you plan to**	**Content**	**Purpose**
Long-term building works (lasting 4 weeks or more)	Submit a Construction Traffic Impact Assessment (CTIA) for approval See 15.10.1	Staged project on private property requiring changed traffic conditions in public space (such as building a high rise apartment complex)	For full details of what to include in your CTIA, see Table 15.7 - Construction Traffic Impact Assessment (CTIA) format guide (p.97)	Minimise the traffic impact of long-term building works, by: - analysing the existing metropolitan, municipal and local transport, access and road uses that could be impacted - setting out a reasoned proposal for any long-term road use changes to facilitate the project, and short-term activities in public space.

15.4 Emergency works and unplanned activities

If you need to undertake emergency works or urgent short-term repairs (such as attending to a broken shopfront window, or a loose building component located above a footpath), you may need to immediately close an area of the road or footpath to protect public safety or to secure property or assets.

Any works that can be deferred to a later date are not considered to be emergency works and will require a permit before any works commence.

We understand that in emergency circumstances, you may not have time to prepare and submit a TMP and/or contact us for advice. Below is a list of the best practice steps that must be followed to immediately make the area safe and maintain public access and accessibility, until you can arrange contractors and obtain the required permit(s) to conduct works activity in public space.

Table 15.2 below explains how to handle traffic management in the event of an unplanned hazard.

Table 15.2 - Managing traffic around emergency works or hazards

STAGE	OBJECTIVES	ACTIONS
Assess the danger	Assess the danger to yourself and to the public	Determine the level of risk presented by the immediate hazard, in terms of its threat to the safety of the public or traffic, or damage to property, infrastructure or the environment Check for additional risk causes (such as a blocked footpath forcing pedestrians onto the roadway), and determine the area of public space affected
Contain the hazard	Create an exclusion zone to prevent public access to the area of immediate and potential hazard	Where possible, set out an exclusion zone providing a 1000 mm buffer to the hazard. Use T-top bollards and tape, or high visibility traffic cones of 900 mm height and with luminance contrast to the surface to define the exclusion zone
Notify the authorities	Notify the relevant authorities so that required action can be taken and support provided to you as necessary	As necessary, notify: • emergency services • utilities • providers of public transport • responsible road authority (City of Melbourne or DoT) * In accordance with the Road Management Act 2004, works managers must notify the responsible road authority within 24 hours of conducting emergency works
Maintain access	Maintain access past the hazard for pedestrians and other road users wherever possible	Ensure safe passage can be maintained for all pedestrians (including wheelchair users) past your exclusion zone around the hazard Do not force pedestrians or cyclists into an area of road where they are not protected (for example, onto the roadway)

		Do not obstruct emergency services vehicles or public transport
Ensure accessibility	Ensure that your exclusion zone can be: • clearly identified • understood • safely and comfortably moved past by all pedestrians (including the vision impaired and those using mobility devices or assistance animals)	Use tall, high-contrast devices (such as bollards, signage or flashing lights) to define your exclusion zone Arrange your devices to lead pedestrians past the hazard in the desired direction Avoid redirecting pedestrians via a step or a change of grade If it is safe to do so, station someone to direct pedestrians in person where possible (it may be necessary to direct pedestrians to a nearby crossing point to avoid the hazard)
Make safe	Only if it is safe to do so, take steps to remove or further mitigate the hazard immediately	Assess whether it is safe for you to enter the exclusion zone and carry out work immediately to clean up, remove or mitigate the hazard (such as repairing a damaged section of hoarding or scaffold or removing fallen materials) If emergency works could impact public trees, notify us as soon as possible
Engage traffic management company	Implement fully-compliant traffic management measures	If the exclusion zone must be maintained and road users will be redirected for an extended period, contact a traffic management company to provide a fully-compliant traffic management solution If a footpath, bicycle or roadway lane requires closure due to a high-risk hazard (such as risk of falling materials, hoarding, gantry or scaffold collapse), only emergency services or traffic management personnel can implement the closure
Book contractors and apply for a permit	After your immediate action to respond to the unplanned hazard, you will need to arrange repair works and apply for a works activity permit	Make arrangements for contractors to conduct the repairs and/or work required If the work will be carried out in public space (for example, occupying an area of the footpath to do the work), you or your contractor must have a permit

15.5 Maintaining access

15.5.1 You should plan your work and design your traffic management strategy to maintain access to properties at all times. Residents, businesses, visitors, deliveries and emergency services must be able to access properties without obstruction. All ways of access between the road and adjoining land or private property must be considered, including private roads or lanes, driveways, gates, stairs, doors and garages. A minimum width of continuous accessible path must be made available for pedestrian access to property (see 15.7.1(d) below for more information).

15.5.2 Before you submit a CTIA or permit application you must consult with affected stakeholders if the closure of a length of footpath or roadway will obstruct any way of access to or from adjoining and nearby properties for any period of time. You must negotiate suitable arrangements for access, parking, loading/unloading and servicing with all impacted stakeholders for the duration of your work. See 6.5 Consultation for detailed requirements.

15.5.3 You must notify affected stakeholders if the closure of a length of footpath or roadway will impact the amenity of adjacent properties (for example, if public parking facilities used by residents, visitors, business customers or service providers will be removed). See 6.6 Notification for detailed requirements.

15.5.4 Access to all bins that are stored or collected via the road must be maintained for pedestrians and collection vehicles at all times. Where this is not possible, you must provide an alternative bin storage and collection arrangement following consultation with all impacted stakeholders (see 6.3 Identifying stakeholders).

15.5.5 Access to our garbage compactors and recycling hubs must be maintained. You can view the locations of these facilities on our website.

15.6 Peak times

15.6.1 You must plan activities that require closing part of the road or footpath to occur outside of peak times. This is to minimise the disruption to existing traffic flows and the impact on road users. Peak times are indicated in Table 15.3 below.

(a) We do not permit the closure of roadways, bicycle lanes or footpaths during the am and pm weekday peak periods shown for all road users in Table 15.3 below.

15.6.2 You should plan any block-and-hold operations to occur outside of peak times. See 15.8.2(d) below for detailed requirements regarding block-and-hold.

Table 15.3 - Peak times

ROAD USERS	TIMES AND CONSIDERATIONS
All road users	7 to 9am and 4 to 6pm weekdays
Your works location may also require additional consideration of a particular road user group(s):	
Pedestrians	Mealtimes (such as lunch and dinner), when peak pedestrian flows occur in dining and entertainment precincts Trading times in retail precincts where pedestrian activity may commence around 10am in line with opening hours
Cyclists	'No Stopping' times as shown on parking signs where 'No Stopping' areas exist to provide dedicated bicycle lanes at times of peak bicycle traffic (times vary by location)
Vehicles	'Clearway' times as shown on parking signs where 'Clearway' areas exist to provide additional lanes at times of peak commuter traffic (times vary by location) 'No Entry' times shown on traffic signs where regular road closures occur to provide dedicated pedestrian areas. You can view these locations on our website Note: peak time traffic may largely occur in one direction in some areas (for example, the morning peak time may only occur in a south-bound or 'city-bound' direction and affect one side of the roadway)

(a) If you also require approval from another agency (such as Department of Transport, public transport operators or major infrastructure works contractors), you must also comply with any restricted hours of operation indicated in their approval. See 7 Third party approvals for more information.

(b) Movement of heavy vehicles, materials or equipment through site access gates should be avoided during peak times.

(c) We do not support full road closures or proposals to occupy footpaths or laneways in the central city or retail precincts during December. This also applies to periods where major events contribute to increased traffic volumes (such as Moomba, the Australian Open and the Formula One Grand Prix).

15.7 Managing pedestrians, cyclists and vehicles

15.7.1 General considerations

(a) To meet our objectives (see 15.1 above), your traffic management proposal must ensure:

- footpaths, bicycle lanes and roadways remain open to the public and disruptions are minimised wherever possible, especially during peak times
- changes to existing conditions are highly visible and easily understood, with existing lines of sight for all road users maintained
- where redirection or detour is unavoidable, road users are protected and re-routed in a safe and time-efficient way
- safe, appropriate widths, surfaces and grades are maintained to meet accessibility requirements of the Disability Discrimination Act 1992 and AS 1428.1
- heavy vehicle movement is actively managed to avoid conflict with other road users
- pedestrian access and priority of movement is maintained in shared zones
- impact on local parking availability is minimised

(b) In accordance with our Transport Strategy 2030 and traffic management objectives (see 15.1 above), pedestrian access, safety, accessibility and amenity should be given the highest priority during disruption. Pedestrian movement is critical for the city's liveability, activation and economy.

(c) Your activity must occupy as little space as possible on the footpath, maximising the space available for pedestrians at all times. Traffic management associated with your activity should prioritise pedestrian movement and avoid the need to obstruct or close a footpath. If closing a footpath is unavoidable during a stage of your proposed activity, it must be kept to the minimum period required.

(d) You must ensure that the minimum clear width of continuous accessible path (referred to as 'minimum clear path width') indicated in Table 15.4 below is available to pedestrians at all times. This width must be free of any narrowing or obstructions (for example, poles, service cabinets, trees, street furniture, or temporary fence feet), and consider the impact of waste bins on collection days.

Table 15.4 - Minimum clear path width

LOCATION	WIDTH REQUIRED	APPLIES TO
Within the central city*	80% of existing width or 3000 mm (whichever is greater)	Spencer, Flinders, Swanston, Elizabeth, Collins and Bourke streets
	80% of existing width or 2000 mm (whichever is greater)	Spring, Exhibition, Russell, Queen, William, King, Lonsdale and La Trobe streets

	80% of existing width or 1800 mm (whichever is greater)	central city locations not specified above
Activity centres	80% of existing width or 2500 mm (whichever is greater)	areas such as commercial precincts (Lygon and Errol Streets) and hospital precincts (Parkville and East Melbourne)
All other areas	80% of existing width or 1500 mm (whichever is greater)	all other areas

* the area of intense employment, retail, residential, entertainment and other activity in central Melbourne. It includes but is not limited to the areas bounded by the Hoddle Grid extending to Peel and Victoria Streets to the north, plus Southbank, South Wharf and Docklands

(e) Activity centres and locations that generate high pedestrian volumes or peaks (such as adjacent to hospitals, tram stops, train stations, universities, event venues, and dining, retail or entertainment precincts) have additional requirements for path width that must be considered.

(f) If it is not possible to maintain the minimum clear path width for pedestrians (for example, where you are unable to meet the requirements in (d) above for a short section of footpath), our assessment of your proposal may require further consideration and additional time.

- You must justify why your activity cannot occupy less space
- We may ask you to provide a level of service (LoS) assessment or Road Safety Audit (RSA) in support of any proposed variation to the stated minimum.

(g) Closing any part of the roadway, including a bicycle lane, individual traffic lane or parking lane should only be proposed where it is unavoidable for a stage of works, and must be kept to the absolute minimum period required.

(h) Any temporary traffic management with potential to impact public transport must also be referred to the relevant authority for approval (see 6 Stakeholder engagement and 7 Third party approvals) and documented approval submitted with your CTIA (see 15.10.1 below) or TMP (see 15.9.1 below).

15.7.2 Moving pedestrians past your worksite

We support the following traffic management treatments for moving pedestrians past a worksite, in preferential order to minimise disruption:

- *Past the worksite*: maintaining pedestrian access on the footpath (see 0 below)
- *Around the worksite*: redirecting pedestrians through adjacent parking bays (see (b), p.81)
- *Across the road*: redirecting pedestrians to the opposite footpath (see (c), p.83)

These treatments are detailed below.

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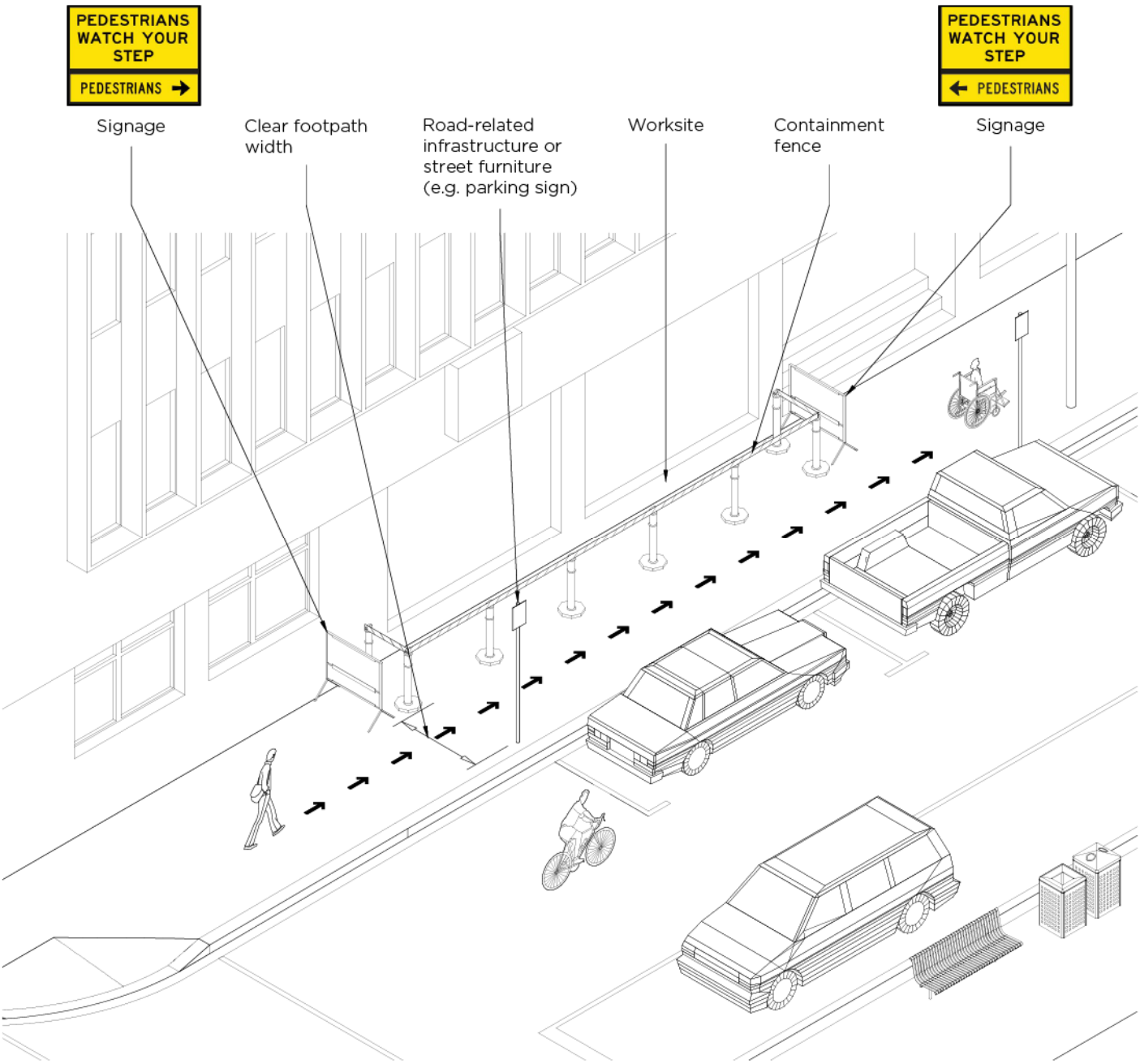
(a) Allowing pedestrians past the worksite

Our preference is for you to occupy as little of the footpath as possible and maximise pedestrian access on the footpath past your worksite (see Figure 15.3 below).

Figure 15.3 - Allowing pedestrians past the worksite



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To allow pedestrians past the worksite, you will need to:

(i) Maximise the available footpath space past the worksite, ensuring the minimum clear path width (see 15.7.1(d) above) is met. This width must be free from all fixed obstructions (like street furniture) or temporary obstructions (such as temporary fence feet, and the doors of parked vehicles being opened) to ensure continuous two-way safe passage through the area.

(ii) Where tactile ground surface indicators are installed, your clear path should ensure these are unobstructed wherever possible to provide consistent wayfinding support to pedestrians.

(iii) Install suitable fencing around your worksite in accordance with AS 1742.3 to provide visible containment of the work area in situations where a road safety barrier system is not required. Containment fencing must be of effective luminance contrast to the surrounding pavement surface for pedestrians with low vision to readily see and navigate.

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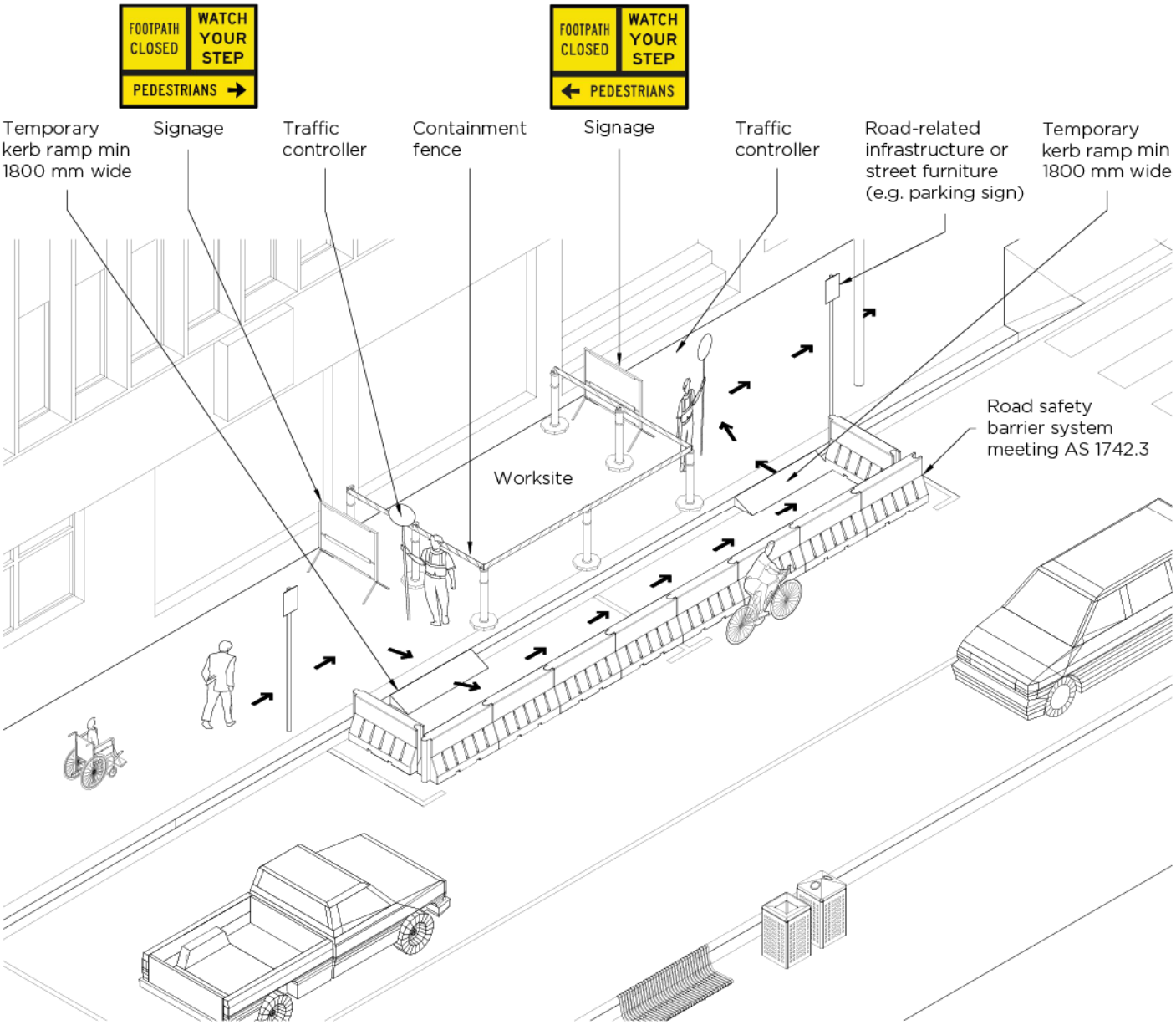
(b) Redirecting pedestrians around the worksite

Where you cannot maintain a suitable clear width for pedestrians to move past the worksite on the footpath, our next preference is for you to close a minimal length of the footpath and redirect pedestrians around the closure using an adjacent parking area (see Figure 15.4 below).

- In some locations where a parking area is not available, pedestrian redirection using a roadway lane may be considered, dependent on the impact to other road users. Approval of this alternative proposal would be determined on a case-by-case basis, would require a Road Safety Audit (RSA) in support of your proposal and would take longer than our standard timeframes.

Figure 15.4 - Redirecting pedestrians around the worksite



To redirect pedestrians around the worksite, you will need to do the following:

(i) Pedestrians should be redirected through a permissive parking area (with no parking restrictions, or with green parking signs such as '1P') wherever possible to minimise local parking impact.

- If changes to parking are required to implement your pedestrian redirection (such as the relocation of affected Loading Zone, Bus Zone, Mail Zone, Permit Zone or Accessible Parking spaces), you would be responsible for all associated costs including fees related to occupying the roadway.

  See 15.7.6 for more information on parking configuration changes and 6.5 for information on requirements for stakeholder consultation.

- Where a physically separated bicycle lane exists adjacent to your worksite, it may be necessary to redirect pedestrians through the bicycle lane, and in turn redirect the bicycle lane. We would consider this type of arrangement on a site-by-site basis.

(ii) Pedestrian movement must be contained within the width of any parking area, inclusive of any road safety barrier system and required clearance. In parking areas where no bay markings exist, you must provide the minimum 4 m shared lane width for bicycles and vehicles on the adjacent traffic lane. See 15.7.4(d) below.

(iii) Temporary kerb ramps conforming to AS 1428.1 must be installed to provide suitable crossing inclines and step-free travel for pedestrians. Any kerb 'bumps' along the redirected pedestrian route must also be ramped over as required to achieve AS 1428.1 standard accessibility. Minimum 1800 mm ramp width is preferred to prevent narrow points and to allow all pedestrians (including those using mobility devices) to pass each other.

(iv) If your installation of ramps, barriers or other devices will affect the operation of stormwater pits or change stormwater flow, you will need to submit detailed engineering design drawings for our review and approval.

(v) Signage must be provided in accordance with AS 1742.3 to inform and direct pedestrians, and warn other road users of the presence of pedestrians on part of the roadway. See 15.8.1 below for more information on traffic control devices.

(vi) Road safety barrier systems must be provided in accordance with AS 1742.3 to protect pedestrians from traffic in the adjacent lane.

(vii) After hours, traffic control devices and barriers should be removed or repositioned where it is safe to reopen footpaths to pedestrians.

- If site constraints require your closure to remain in place when work is not occurring on site, you will require additional approval and traffic controllers will be required supervise traffic.

(viii) If pedestrians will be redirected onto a part of the roadway after daylight hours, a street lighting assessment must be undertaken by a suitably qualified person to ensure adequate lighting is provided. See AS/NZS 1158.4 for requirements.

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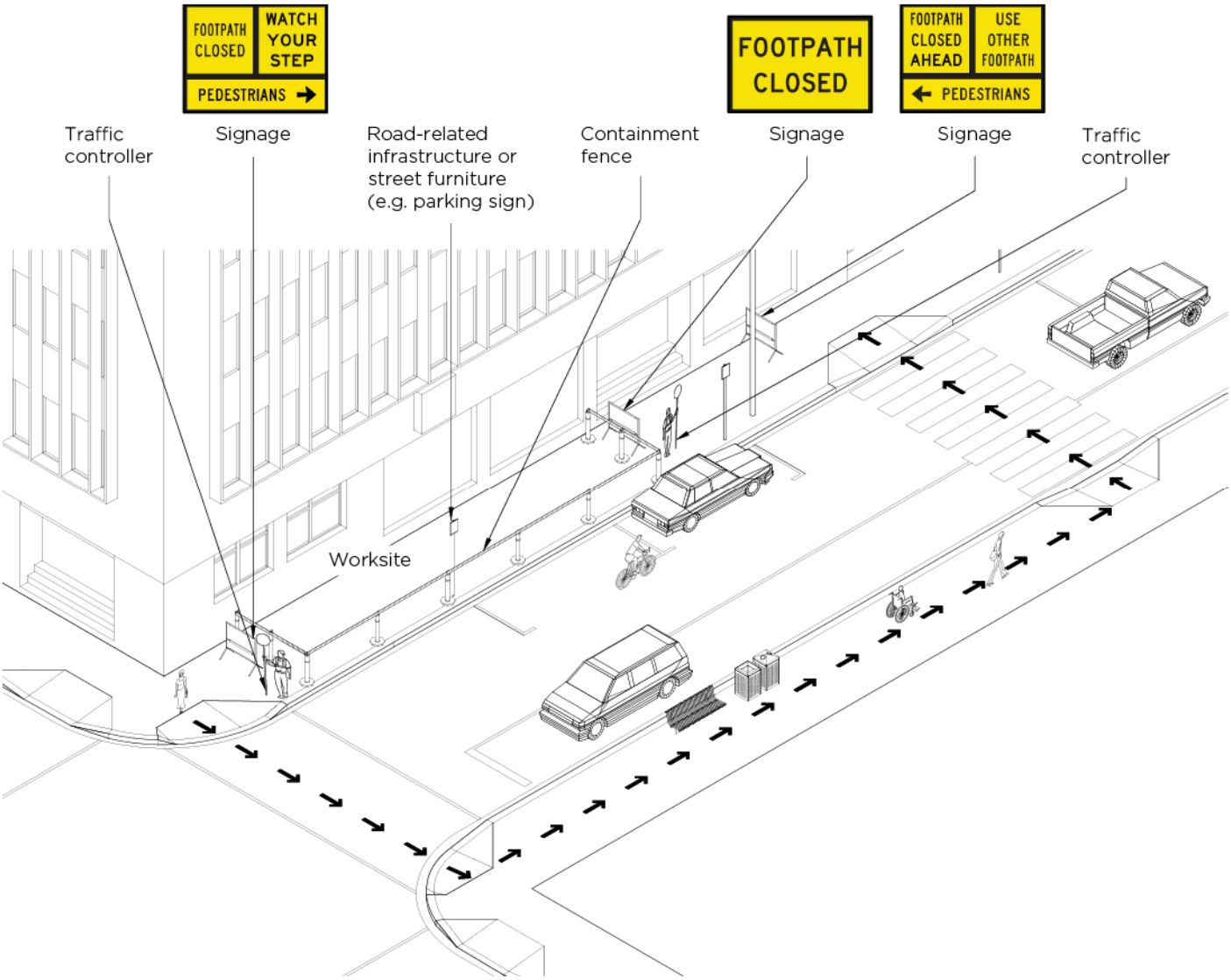
(c) Redirecting pedestrians across the road

Where you cannot use an adjacent parking area to redirect pedestrians past your worksite, our next preference is for you to redirect pedestrians to the footpath on the other side of the road (see Figure 15.5 below).

Figure 15.5 - Redirecting pedestrians across the road



To redirect pedestrians across the road, in addition to the requirements in 15.7.1(g) and 15.7.2(b) you will need to do the following:

(i) Signage must be provided in accordance with AS 1742.3 to inform pedestrians that a length of the footpath is closed, to direct them to a preferred crossing point, and to warn other road users of pedestrians crossing in the area.

(ii) Our preferred existing crossing points are:

- signalised crossings
- zebra crossings
- crossing points adjacent to 'Stop' or 'Give Way' traffic signs.

(iii) For short-term activities of less than four weeks, where there is no suitable existing crossing point, traffic controllers must block-and-hold traffic to assist pedestrians to cross the roadway. See 15.8.2 Traffic controllers for information on our requirements for block-and-hold.

(iv) For longer term activities of four weeks or more, where there is no suitable existing crossing point – our preference is for a temporary pedestrian crossing (a zebra crossing or signalised crossing) to be installed. This would be assessed on an individual basis.

(v) Installation of a temporary pedestrian crossing is considered a Major Traffic Control Device, requiring a memorandum of authorisation from the Department of Transport. Depending on the location, traffic conditions and appropriate solution, an installation could be expected to involve:

- us removing parking bay markings and possibly in-ground sensors and parking meters
- us replacing parking sign panels and possibly relocating or installing sign posts and sockets
- you installing crossing signs, line markings, tactile ground surface indicators and kerb ramps and any drainage provisions
- you arranging a lighting assessment and the installation of additional lighting to meet AS/NZS 1158.4
- you arranging installation of crossing signals and audible signals.

(vi) If a designated crossing point is required within a 'Shared zone' (an area already providing pedestrian priority), an installation could be expected to involve:

- any approved treatment meeting the requirements of an independent road safety audit
- you installing a temporary pedestrian crossing (see 24 Temporary pedestrian crossings for details)
- you installing traffic advisory signs, line markings and speed reduction devices (as required).

(vii) You would be responsible for the cost of works involved and for reinstatement of the area at the completion of your project. All works in the road require a permit (see 22.5 Consent for works (road works) for more information) and must conform to our Engineering Standards.

See 24 Temporary pedestrian crossings and 10.6.2 Reinstatement of our assets for more information.

(viii) If temporary traffic management involves changes to existing vehicular traffic conditions (such as a merging of lanes, or the introduction of contra-flow or shuttle-flow lanes), traffic controllers must be stationed at pedestrian crossing points. This includes after hours if the closed length of footpath cannot be safely reopened to pedestrians.

(ix) You must coordinate your activity with any other works occurring in the area to ensure that a footpath on at least one side of the road remains open to the public at all times.

15.7.3 Concrete feed lines

(a) We strongly discourage the operation of any concreting plant from public space. Concreting plant and equipment should be operated within the site to minimise noise and traffic management impacts in public space. See 20.6 Concrete trucks and pumps for more information.

(b) Where it is unavoidable to run concrete feed lines, service pipes, conduits or cables from the road into the site, they should be run over an adjacent gantry wherever possible to eliminate the need for ramps to be installed over any footpath or bicycle lane. If this is not possible, and these items will be run across a footpath that is open to the public, they must be ramped over in accordance with AS 1428.1 to provide suitable visibility, inclines, slip-resistant surfaces and step-free travel for all pedestrians.

(i) Ramps must maximise the available clear path width.

(ii) Ramps and landings should have P5 rated slip-resistant finishes (see AS 4586 and HB 197 for guidance)

(iii) The height of the ramp landing must be minimised.

(iv) Handrails must be provided along the full length of the ramp and landing to assist continuous movement.

(v) Kerbs or kerb rails must be provided to create a side barrier to the ramp surface to prevent pedestrians (particularly wheelchair users) from going over the ramp edge or contacting handrail posts.

(vi) We discourage the redirection of cyclists over ramps. Where a bicycle lane has been redirected to share footpath space and lines cannot be run to the site overhead via gantry or scaffold, traffic management measures must be in place to slow cyclists on approach to any ramp.

15.7.4 Moving cyclists past your worksite

(a) Where your work may impact the operation of bicycle lanes, your traffic management measures must ensure:

- existing bicycle lanes remain open wherever possible, especially during peak times
- disruption to bicycle traffic is minimised
- protected, safe and navigable alternative routes or facilities are provided where bicycle lanes must be redirected or closed.

(b) Where changed conditions occur adjacent to bicycle lanes, ‘Watch for Cyclists’ signage must be placed well in advance of the approach to the worksite, to warn drivers of the potential of cyclists riding in traffic lanes to pass the worksite and to allow cyclists an opportunity to seek alternative routes or take extra precaution. Signage should be appropriately located and must not present an obstruction to the bicycle or traffic lane.

(c) Bicycle lane redirection

You should redirect a bicycle lane if the existing alignment of the lane cannot be maintained during works.

(i) Cyclists should be moved past the worksite by being redirected safely to another part of the road where a dedicated path can be provided. Existing separated bicycle lanes should be provided with separation as part of any temporary redirection. We may consider the use of part of a footpath for this purpose.

(ii) You should consider the variable speed and proficiency of approaching cyclists in determining the location and the path of redirection, and the placement of all signage and delineation devices.

(iii) Where a bicycle lane is redirected under a gantry, you should maximise the available widths for pedestrians and cyclists wherever possible. Pedestrian and bicycle paths must be clearly separated using delineating devices.

(iv) Any unavoidable covers or ramps installed along a redirected bicycle route must have a skid-resistant surface treatment for cyclists to safely negotiate in all weather conditions, and measures must be in place to slow cyclists on approach.

(d) Bicycle lane closure

Where site constraints prevent the bicycle lane being redirected it may be unavoidable to temporarily close a length of bicycle lane.

(i) You should plan your work to allow the lane to remain open during peak periods for bicycle traffic.

(ii) 'End bicycle lane' signage must be provided to advise cyclists of any bicycle lane closures ahead.

(iii) A minimum 4 m wide shared lane must be maintained in an adjacent open roadway lane or any roadway that will be used as a detour route for cyclists.

(e) Bicycle detour

Where it is not possible to redirect the bicycle lane or maintain a minimum 4 m wide shared roadway lane past the site, your TMP must provide a safe alternative solution, such as:

- a detour for cyclists that includes way-finding signage
- a traffic controller to block-and-hold vehicles to allow the safe passage of cyclists past the worksite
- a combination of detour and short-distance dismount (where cyclists must dismount and walk their bicycles along the footpath for a short distance) options.

(i) Detours should provide comparably protected, safe and navigable cycling routes to the route they replace (see (d)(iii) above).

(ii) Any proposed detour should prioritise protected bicycle lanes, or formal (painted or line-marked) bicycle lanes where protected lanes are not available. The shortest possible detour route may not be suitable for cyclists if it introduces additional risk.

15.7.5 Moving vehicles past your worksite

Where you need to undertake works that will require the closure of any part of the roadway, you will need to apply for a permit for your activity and submit a suitable TMP (prepared in accordance with 15.9.1 below).

(a) Merging lanes

Our preference is for you to occupy as little of the roadway as possible and maintain traffic flow past your worksite. In a location where more than one traffic lane travels in a single direction, this can be achieved by merging lanes for a short distance, reducing traffic flow while avoiding road closure and traffic detour.

Here's what you will need to do to achieve this:

(i) You should carefully time any roadway modification to minimise impact on access, public transport and local parking availability for service providers, residents, businesses and visitors. We assess the dates and times of road closure proposals on an individual basis, however you should be guided by:

- avoidance of weekdays and of peak traffic periods (see 15.6 Peak times for details).
- consideration of noise levels and how these may impact on the amenity of the local area (see 14.3 Noise and vibration for more information).

(b) Closing lanes in a single direction

Where it is necessary to close the roadway, our preference is for you to close lanes travelling in a single direction only (partial roadway closure) to limit wider disruption to traffic.

Here's what you will need to do to achieve this (in addition to considerations in 15.7.5(a) above):

(i) Consider if two-way traffic can be supported during the partial closure (by implementing a contra-flow or a shuttle-flow lane). This will reduce the potential traffic impact of a detour and may allow local access to be maintained. Provided a minimum 4 m wide shared lane for bicycles and vehicles (see 15.7.4(d) above) can be achieved:

- a parking area could be cleared and used as a lane for traffic travelling in a single direction
- a Reserved Parking permit would be required to clear the area of parked vehicles. See 15.7.6(c) below for more information.

(ii) If the partial closure is likely to have a significant impact on local access or traffic congestion, you will need to install advance warning signs and Variable Message Sign (VMS) boards. See 15.8 Traffic control devices and traffic controllers for details.

(iii) Changed conditions for vehicular traffic (such as contra-flow or shuttle-flow lanes), must be supervised by traffic controllers. See 15.8.2 Traffic controllers for more information.

(c) Closing the roadway

We strongly discourage full roadway closures due to their significant impact on traffic, public transport, residents, workers and businesses, particularly during weekdays and peak traffic periods. We prefer that you plan and stage your works so that they only require the closure of one side of the roadway at a time (see (b) above for details).

Where it is not possible to close only the lanes travelling in a single direction, in some instances a full roadway closure may be unavoidable.

If you have exhausted all other options and have no alternative but to implement a full roadway closure, here's what you will need to do to achieve this (in addition to the requirements in (b) above):

(i) Local access must be maintained at all times, or arrangements must be made with affected properties (see 15.5 Maintaining access).

(ii) Access for pedestrians and cyclists through a roadway closure should be maintained wherever safe passage can be provided. This could be achieved by allocating a strip of roadway through the closure that permits the passage of pedestrians and/or cyclists (for example, within an on-road parking area or a traffic lane). Suitable safety measures should keep vehicles from entering the closed roadway and the path reserved for pedestrians and/or cyclists delineated in accordance with AS 1742.3.

(iii) Detour routes and route impacts for pedestrians, bicycles and vehicles must be provided and clearly identified in your TMP.

(iv) Consent must be obtained from all key stakeholders (such as Department of Transport, emergency services and public transport operators). See 6 Stakeholder engagement and 7 Third party approvals for more information.

(d) Managing traffic in laneways

(i) A reduced set of traffic management requirements applies to dead-end laneways (roads that provide no through access) due to significantly lower volumes of pedestrian, bicycle and vehicle movement.

When you apply for a permit for works activity in a laneway, your TMP must ensure:

- local access is maintained (see 15.5)
- access to our garbage compactors and recycling hubs is maintained (see 15.5.5)
- appropriate traffic control devices are used (see 15.8)
- Reserved Parking permits are obtained as required (see 15.7.6(c)).

(ii) All traffic management considerations apply in laneways with through access.

15.7.6 Parking (for general traffic and works vehicles)

(a) General considerations

(i) All vehicles associated with the building site or works activity must be parked legally in accordance with the Road Safety Road Rules 2017 at all times. This includes vehicles operated by works and traffic management personnel, site delivery and waste collection vehicles.

(ii) All vehicles not actually engaged in works taking place in the road must comply with signed parking conditions. You must have a Reserved Parking permit to park vehicles for longer than the time limits shown on parking signs (see 15.7.6(c) for details).

(iii) 'Permit Zone, Car Share Vehicles' parking bays are leased from the City of Melbourne by car share operators. Information on the locations of car share bays is available on our website. If a car share bay will be affected by your proposed closure, you must consult with the car share operator. You are responsible for providing an alternative bay for their vehicle if requested by the operator. To provide for the relocation of a car share bay:

- during short-term closures, you should arrange Reserved Parking (see (c) below) for the relocation of the car share bay outside the road closure
- during long-term management of parking changes, you should add a relocated car share bay to your application for a Construction Permit Zone.

(iv) Your traffic management measures should not impact Accessible Parking facilities. If this is unavoidable during a stage of your works activity, it must be clearly indicated in your submitted plans. If we approve your use or closure of an Accessible Parking area:

- you are responsible for providing alternative Accessible Parking by arranging Reserved Parking for the short-term relocation of these spaces (see (c) below)
- for long-term parking changes, you will be responsible for the costs associated with us relocating Accessible Parking and other affected parking areas as required (see (b) below for more information).

(b) Construction Permit Zones

(i) Construction Permit Zones facilitate the safe, efficient movement, stopping and parking of heavy vehicles in specific locations while managing the needs of other road users during long-term building works.

- For short-term works where a Construction Permit Zone has not been established, you must instead apply for Reserved Parking if you need to coordinate heavy vehicle parking. See (c) below for detailed information.

(ii) You must apply for a Construction Parking permit before we implement changes to parking conditions to facilitate your vehicle movements. This is regardless of the existing signed parking conditions or any temporary structure surrounding the area.

(iii) Table 15.5 (p.90) outlines the steps involved in establishing a Construction Permit Zone for your building project.

Table 15.5 - Establishing a Construction Permit Zone

STEP	YOU'LL NEED TO	THEN
1. Propose long-term parking changes to facilitate your building works	Submit a CTIA (see 15.10.1 below) that details your proposal for the location of any Construction Permit Zone parking areas, as well as No Stopping areas for safety reasons and to accommodate vehicle swept paths	We will notify you of our conditional approval of your CTIA together with any required revisions to your proposed long-term parking changes
2. Arrange for us to install a Construction Permit Zone (as conditionally approved in your CTIA)	Apply for a Construction Parking permit (allowing for the required lead time for us to assess, approve and install the required parking changes)	We will install the approved parking changes (installing, removing or relocating line marking, parking signs, parking meters and in-ground sensors as required), before issuing your permit
3. Obtain our approval to install additional items in the Construction Permit Zone (such as bollards, fences, gates, and concrete pads)	After we issue your Construction Parking permit, apply for consent for works (road works) (see (vii) below), and submit a Traffic Management Plan (TMP)	After we provide our consent, you can commence works to install the approved items within the Construction Permit Zone
4. Obtain our approval if you need to undertake other activities (such as operating mobile plant from the Construction Permit Zone)	Apply for a permit and submit a TMP if you need to conduct an activity other than stopping, parking, loading and unloading of vehicles in the Construction Permit Zone.	After we issue the relevant permit(s), you can conduct the approved activities from the road.

(iv) Your application for a Construction Parking permit must be supported by an approved CTIA (see 15.10.1 Preparing and submitting a Construction Traffic Impact Assessment (CTIA) for details). Your CTIA approval must reference an approved traffic layout plan that shows the parking changes you are requesting us to install.

(v) Construction Permit Zone parking changes are subject to minimum areas and minimum terms. Associated costs including fees related to occupying the roadway via parking changes will apply for as long as the parking changes remain in place. More information on fees, charges and required lead times is available on our website.

(vi) You must not modify, install or remove any parking infrastructure (including signs, poles, sensors, meters and line markings). After you obtain both CTIA and Construction Permit Zone approvals, we will:

- install areas signed as 'Permit Zone, Construction Vehicles' (the Construction Permit Zone) as required for your exclusive parking use
- install 'No Stopping' areas as required to accommodate vehicle swept paths and pedestrian crossings
- remove and/or relocate parking infrastructure such as parking signs, parking meters, line markings and in-ground sensors

- relocate key public parking areas (such as 'Bus Zone' and 'Loading Zone' areas) as required.

(vii) After we install your Construction Permit Zone parking area, you must have our consent for works (road works) before you can excavate, modify or install items in the roadway within the Construction Permit Zone (such as bollards, fencing, gates, ramps or worksite safety barrier screens). See 22.5 Consent for works (road works) or 18.3.13 Hoisting zones for details.

(viii) Only registered motor vehicles with a Construction Parking permit may stop or park in the area indicated by 'Permit Zone, Construction Vehicles' signs. The permit applies only to the area where these parking signs apply.

(ix) Construction Permit Zones remain on-road parking areas subject to the Road Safety Road Rules 2017 and our Activities Local Law 2019.and any requirement for a permit before undertaking works activities in the road.

(x) Use of a Construction Permit Zone must be in accordance with your approved CTIA, this Code and all conditions of the permit.

(c) Reserved Parking

(i) Reserved Parking permits allow the permit holder exclusive use of on-road public parking areas in specific locations and provide a flexible means of reserving space to stop and park vehicles. More information on Reserved Parking is available on our website.

(ii) Unless the area is within a permitted road closure, you must have a Reserved Parking permit to park in an area for longer than the time limit shown on parking signage, or to keep a parking area clear of other vehicles (for example, if you plan to use bollards or traffic controllers to keep a public parking area empty).

15.7.7 Managing heavy vehicles

Heavy vehicle movements, particularly those associated with the entry and exit of building sites can be particularly disruptive to local area traffic flow. To minimise this disruption:

- when planning your works activity, you should distribute the arrival of heavy vehicles across permitted hours to minimise the impact on local traffic.
- heavy vehicles should not enter or exit the site during periods of peak road user activity, to minimise the impact of any required block-and-hold operations (see 15.6 Peak time and 15.8.2(c) for more information on block-and-hold).

(a) Large building projects typically have a significant volume of heavy vehicle movement into and out of the site. Your CTIA must ensure that vehicles do not block traffic while waiting to enter the site or to access your Construction Permit Zone.

(i) You must identify a heavy vehicle waiting area outside of the central city to assist in coordinating vehicle movements to and from the site.

(ii) The waiting area must be indicated on your CTIA and provide legal and practical parking for heavy vehicles, preferably off-street on private property to minimise the impact on public parking availability.

(iii) If off-street parking is not available for a suitable vehicle waiting area, you should hold heavy vehicles in service lanes or on-road parking areas that traffic surveys can show have low parking demand. Any heavy vehicle waiting areas:

- should not be located adjacent to residential dwellings to minimise impact on amenity and parking
- should not be adjacent to major land uses (such as retail, education or event precincts or public transport nodes)
- must not include the use of special use parking areas (such as Bus Zone, Mail Zone, Permit Zone or Accessible Parking spaces)
- should not contribute to local traffic congestion.

(iv) If necessary and if suitable private or on-road parking areas are not available, you will need to include a proposal in your CTIA for a remote Construction Permit Zone to be established to provide a waiting area.

(b) Reversing movements on the road (to enter or exit the site) should be avoided at all times. Site planning should provide allowance for vehicles to enter and exit the site in a forward direction wherever possible, reducing the potential for hazard and the impact on local traffic and road users.

(i) You should consider the use of turntables or other systems to avoid reversing heavy vehicles within the road.

(ii) Where reversing movements are unavoidable, this must be clearly indicated in your CTIA and will require traffic controllers to block-and-hold other road users as necessary.

(c) Vehicles must only move between a public road and a building site via an approved, suitably designed and constructed vehicle crossing. You require a permit to modify, add or remove a vehicle crossing and we impose strict controls on their design and construction. See 23 Vehicle crossings for details.

(d) Vehicles must not be stopped or parked on crossings or across footpaths or kerbs, and must not mount kerbs during turning or reversing movements. Sufficient clearances must be provided on all vehicle swept paths in your CTIA or TMP to prevent vehicles contacting kerbs and footpaths.

15.8 Traffic control devices and traffic controllers

15.8.1 Traffic control devices

(a) You must have a permit to control traffic, occupy or fence off part of the road, or install, alter or remove any object in or over a road.

(b) Traffic control devices should be provided and placed in accordance with AS 1742.3 and Austroads Guide to Temporary Traffic Management to ensure:

- hazards identified in your TMP are eliminated or reduced
- advance warning of any change to road conditions is made highly visible to all road users
- directional assistance is provided as required and supports all pedestrians (including those with low vision)
- signs are placed safely to avoid creating a hazard for other road users, particularly pedestrians and cyclists.

(c) Traffic control devices must not be affixed to public trees or located within tree plots.

(d) All devices must be provided and maintained in accordance with AS 1742.3 and with the Road Management Act 2004 Code of Practice: Worksite Safety – Traffic Management.

(e) You should inspect your traffic control layout daily to ensure the configuration conforms to your diagram, that assessed risks continue to be addressed and that the layout continues to be effective in managing actual local traffic flows.

(f) If you must leave devices in place outside daylight hours, additional measures (such as warning lights and retroreflective signs) must be placed to ensure the safety of road users.

(g) Where long-term traffic management requires devices to be affixed to the road, signs (for example, 'Prepare to stop', 'Trucks ahead' and 'Traffic controller ahead') must be installed in gib key sockets in accordance with our engineering standard drawing 1P 50400 (available on our website). All signs, signals and barriers must be inscribed with the owner's company name and include reference to the project or the building site property address. These items must be removed after your works when no longer required (see 10.6 After your project for details).

(h) Variable message sign (VMS) boards:

  (i) require a memorandum of authorisation from Department of Transport before being placed in the road (see 7.3 for details)

  (ii) must be placed to ensure the minimum clear path width is maintained for pedestrians (see 15.7.1(d) above)

  (iii) must not obstruct lines of sight for road users

  (iv) must not obstruct any part of the roadway open to the public, any bicycle lane or any parking area not already reserved under a Reserved Parking permit (see 15.7.6(c) Reserved Parking)

  (v) must not be placed within tree protection zones (see 11.2.2 Tree Protection Zones)

  (vi) must use bog mats if placed on soft landscaping (for example, on a nature strip or dividing strip) to distribute the board and trailer weight and prevent damage to the surface. See 10.5.1 Surface protection and load limits.

(i) We operate removable (lockable) bollards in some areas to restrict vehicle access during specific days and times. If you need these bollards removed as part of your TMP, you will need to:

  (i) contact us for costs related to the unlocking and removal of the bollards (we will provide you with our contractor's details so you can coordinate with them to have the bollards removed and reinstalled)

  (ii) store the bollards in a supervised, secure location while they are removed

  (iii) ensure a traffic controller supervises the temporary access point to prevent access by unauthorised vehicles while the bollards are not in place,

  (iv) ensure the bollards are reinstated and locked in place after hours.

(j) All devices (for example, signs, signals, barriers and temporary vehicle and pedestrian crossings) must be removed – and public space reinstated to its prior condition – at the conclusion of temporary traffic management. See 10.6 After your project for details.

15.8.2 Traffic controllers

(a) If you install traffic control devices in the road, traffic controllers should supervise traffic wherever works or traffic modifications have impacted access or introduced the potential for hazard.

(i) As a minimum, traffic controllers should be stationed:

- at each end of any full footpath closure (where the footpath is completely closed between two intersections)
- where pedestrians are redirected onto the roadway
- where heavy vehicles will cross the path of pedestrians or cyclists to enter or exit a worksite
- where road users are rerouted (where a redirection or detour is in place for pedestrians, bicycles or vehicles)
- where traffic controls affect the normal path of bicycles, vehicles or public transport
- where the potential for any traffic conflict has been introduced (for example, where heavy vehicles will need to make reverse movements in public space)
- intermittently along a section of road as required to facilitate local access, or to safely manage shuttle-flow or contra-flow arrangements.

(ii) The Traffic Guidance Scheme diagram supplied with your application for permits or approvals should indicate the position of each individual traffic controller. Each traffic controller indicated on your diagram must be present at the specified location while temporary traffic modifications remain in place.

(b) Traffic controllers must actively manage any potential conflict between heavy vehicles and other road users (pedestrians, bicycles, vehicles or public transport). In areas where pedestrians regularly walk on the roadway (such as in shared zones and laneways) traffic controllers must escort heavy vehicles.

(c) You should plan heavy vehicle entry and exit from the site to occur outside of the local peak times for road activity (see 15.6 above) wherever possible, to minimise the number of road users impacted where traffic controllers need to block-and-hold pedestrians, cyclists or vehicles.

(d) If you will need to carry out block-and-hold operations on the roadway or the footpath to temporarily separate the public from heavy vehicles and works activity, here's what you will need to consider:

(i) you must consult with key stakeholders such as emergency services and Department of Transport (for bus and tram operations) to accommodate their requirements (see 6.3 Identifying stakeholders and 7 Third party approvals for details)

- traffic management measures that may impact public transport services require the approval of transport operators.

(ii) traffic controllers may block-and-hold:

- pedestrians
- bicycles
- vehicles (except emergency services vehicles)
- public transport (subject to consultation with transport operators).

(iii) a block-and-hold can be performed only once per 15 minute interval, except where traffic controllers are accommodating pedestrians crossing the roadway (see 15.7.2(c) Redirecting pedestrians across the road for details)

(iv) a block-and-hold must not continue for more than one minute

(v) emergency services vehicles must never be held.

(e) Private vehicles used by traffic controllers to attend work must be parked legally in accordance with local parking conditions. See 15.7.6 for more information on parking.

15.9 TMPs and short-term traffic management

You must have a permit for any short-term works activity in public space and to close any part of the road or footpath to facilitate that activity. This could be a one-off activity (like replacing a window or connecting to stormwater), or to undertake one component of your approved CTIA (such as installing hoarding from the footpath or operating a mobile crane from the road).

A permit may include our approval to temporarily enclose or occupy an area within the road. This could range from a section of footpath or traffic lane, to the full closure of a roadway or laneway. Before we assess a proposal for enclosure or occupation, you need to submit a Traffic Management Plan (TMP) in accordance with provisions of the Road Safety Act 1986 and Road Management Act 2004.

TMPs ensure the safety of the public and of persons engaged in the works and set out how traffic and access will be managed in the impacted area.

15.9.1 Preparing and submitting Traffic Management Plans (TMPs)

We are the coordinating road authority for municipal roads within the City of Melbourne. If your TMP will require the closure of any part of the roadway on an arterial road, you need to obtain approval from the Department of Transport. Maps of declared arterial roads are available from Department of Transport.

Before submitting your TMP, check that your proposed temporary traffic management strategy meets the requirements set out in this part of the Code. If not, our assessment of your proposed TMP may require further consideration and additional time.

(a) TMPs should be prepared by a suitably qualified professional, in accordance with AS 1742.3 and the Road Management Act 2004 Code of Practice: Worksite Safety – Traffic Management.

(b) Your TMP should be prepared using up-to-date, accurate, consistent information. We recommend that you:

- inspect the location in person at relevant times of the day (including after-hours)
- photograph key elements of the location
- record the locations of all poles, service cabinets, pits, public trees and street furniture that restrict the width of clear footpath available to pedestrians (see 15.7.1(d) for details)
- consider the possible interactions affecting all road users (including pedestrians, bicycles and vehicles)
- consider existing works activity in the area and discuss impacts with nearby sites
- prepare a Safe Work Method Statement to describe the measures that will be implemented to control identified risks.

Table 15.6 - Traffic Management Plan (TMP) format guide

SECTION	CONTENT
1. Works description	Contact details Site location plan Dates and times of work Frequency and duration of roadway or footpath closures Detour routes and route impacts for all road users Routes, volumes and timing of heavy vehicle movements
2. Stakeholder management	Copies of any required third party agency approvals (see 6.3 and 7) Details of consultation and notification undertaken (see 15.5)
3. Traffic Guidance Scheme (TGS)	Scale diagram(s) with adequate dimensions and clearly labelled streets, clearly showing all: • changes to traffic conditions • areas where the footpath or roadway will be closed (including why the closure is required and how you have minimised its extent and duration) • proposed redirections or detours • dimensions of clear widths provided for pedestrians, cyclists and vehicles adjacent to any closure • extents of movement and operation of any heavy vehicles or mobile plant (where applicable) • placement of works advisory and traffic control devices and traffic controllers • after hours arrangements when work is not being conducted at the site, but the area cannot be safely reopened to the public (as required).

(c) Your TMP should be formatted in accordance with Table 15.6 above.

- The Traffic Guidance Scheme diagram included in your TMP must clearly show all items noted in Table 15.6.

(d) We will review your TMP to ensure it meets our traffic management objectives. If appropriate and your TMP can be accommodated with other scheduled works and activities in the area, we will approve the requested road and footpath closures associated with your activity.

- You are required to ensure you design, implement and operate your TMP in accordance with legislation. In issuing you with a permit, we are approving the road and footpath closures detailed in your TMP (we are not approving the TMP).
- Your permit will include any additional site-specific conditions that must be observed, and information regarding other road closures and activities nearby. You must contact and maintain communication with nearby permit holders to coordinate your work and traffic management operations to minimise the overall impact on road users.

15.10 CTIAs and long-term traffic management

If you require the long-term use of public space (for four or more weeks) to facilitate your building activity on a property, you will need to prepare a CTIA (formerly Construction Traffic Management Plan, or CTMP) for our review. The CTIA is one component of a broader Construction Management Plan (CMP) that is required to account for all aspects of demolition, excavation or construction work on a project. See 4 Construction Management Plans (CMPs).

Your CTIA should assess existing traffic conditions and detail your plans to manage safety and amenity in the affected public space.

Our approval of your CTIA affects your eligibility for other permits (for example, when you apply to have a Construction Permit Zone installed in the road – see 15.7.6(b) Construction Permit Zones). Any parking changes and works activities requiring permits must have been detailed in your approved CTIA.

We have specific requirements relating to the preparation of CTIAs. The following information should act as a guide for any developer or contractor requiring the long-term use of public space.

15.10.1 Preparing and submitting a Construction Traffic Impact Assessment (CTIA)

We require a CTIA for:

- any project requiring a Construction Management Plan (CMP)
- any building works or related activity that will impact road users, property access or waste collection in public space for a period of 4 weeks or more.

(a) Your CTIA must be prepared by a suitably qualified transport consultant.

(b) We recommend you submit your CTIA to us for review at the start of a project (at the planning stage) to provide sufficient time for us to consider your proposed strategy and provide feedback.

(c) Our approval of a CTIA constitutes conditional, in-principle approval of your traffic management strategy and layouts. You will need to apply for permits to implement road configuration changes, conduct works activities in the road or make any changes to assets or infrastructure located in the road (see (k) below for more information).

(d) Your CTIA should follow the format guide outlined in Table 15.7 below.

Table 15.7 - Construction Traffic Impact Assessment (CTIA) format guide

SECTION	CONTENT	TABLES/CHARTS AND ENCLOSURES
1. Introduction		
2. Locality	Identification and description of key considerations of the area affected by the works, including: • safety and amenity • access • stakeholder (see 6 Stakeholder engagement).	• Locality map • Road use hierarchy plan • Photographs of key elements of the location

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3. Staging	Timing, description and coordination of each stage of work	• Project timelines • Heavy vehicle movement volumes (by place, time and type of vehicle)
4. Road use	Analysis of existing road use	• Road use (by transport mode, place and time)
5. Impact	Descriptions and impacts of the proposed short-term and long-term traffic management treatments involved in facilitating the project	• Impact (by transport mode, place and time)
6. Mitigation	Description of how expected impacts will be mitigated, and how the existing and anticipated needs of road users and local stakeholders will be met	
7. Implementation	Description of proposed processes for implementation, monitoring and maintenance	
8. Emergencies	Documentation of project contacts, authority and third-party contacts and emergency contact procedures	• Key project contacts • Key authority contacts, and procedures for contact and notification
9. Communication	Description of your strategy for engaging, consulting and notifying relevant stakeholders, authorities and agencies	• List of identified stakeholders • Consultation and notification communications templates • Communication records and meeting minutes • Documentation of any required third-party approvals
10. Appendices	Collection of key plans and supporting documents	• Haul routes • Remote waiting areas • Traffic guidance schemes (short-term and long-term) • Functional traffic layout plans with swept paths • Vehicle crossings • Temporary pedestrian crossings (including lighting assessments) • Cross-sections and clearances • Independent road safety audit (RSA), if requested

(e) Your CTIA must clearly describe the building works method.

This will typically include details of:

- the location of the property
- the scheduled commencement date and the length of the project
- a description, sub-plans and timelines for each stage of work
- the volume of heavy vehicle movements generated by each stage of the work
- haul route(s) for heavy vehicles accessing and leaving the site
- the location of remote heavy vehicle waiting areas
- details of any Construction Permit Zone for use by vehicles servicing the site (see 15.7.6(b) Construction Permit Zones)
- the location and nature of all proposed parking changes to ascertain impacts (note that if we need to relocate parking spaces to accommodate your requirements, this may result in indirect impacts to parking in other locations)
- the extent, frequency and duration of any footpath, bicycle lane or roadway closure
- documentation of any required third-party approvals, such as public transport operators and utilities, including the permitted working hours and conditions of approval (see 7 Third party approvals for details).
- evidence of your consultation with local stakeholders, and your plan for notification communications prior to the start of specific works activities (see 6.5 Consultation and 6.6 Notification for details)
- any occupancy of kerbside space in front, adjacent and remote to the building site (for example, if you propose to occupy space in front of an adjacent property, or occupy space remote from the site). This will require written approval from the adjacent property owner(s). If the adjoining owners don't agree, we may not approve any parking changes extending beyond your site frontage.
- provision of scaled functional traffic layout plans (see (g) below).

(f) Your CTIA must consider and document how the needs of all road users and the access considerations of local stakeholders will be accommodated during all stages of the project, via:

- measures to ensure the safety of all road users and works activities occurring in or impacting public space
- measures to mitigate impacts on access, circulation and amenity to the surrounding properties, public space and road network
- the volume and timing of heavy vehicle movements expected each day
- the size (and swept path dimensions) of any vehicles servicing the site, to ensure no kerbs, building lines or other road assets (such as trees, poles, service cabinets and street furniture) are overlapped
- workable vehicle movements, incorporating: adequate clearances, minimal reversing, forward-in and forward-out movements between the site and the road, and the use of any remote truck waiting areas (see 15.7.7 Managing heavy vehicles for details)
- where site vehicles will legally stop and park
- how site personnel will travel to and from the site, and parking arrangements (if required) for those that drive

- where materials will be stored during and after hours
- how materials and waste will be transported between vehicles and buildings
- any impact on municipal assets (including requirements for asset modification, removal or relocation, see 10.4.5 for details)
- maintenance of street lighting levels in accordance with relevant standards
- how you will coordinate with other building sites nearby.

(g) Functional traffic layout plans included in your CTIA should be prepared using CAD software. They should be supplied at a legible scale and should display a north point, adequate dimensions and clearly labelled streets.

Your layout plans must clearly show:

- the layout of existing bicycle lanes, traffic lanes, dividing areas, tram reserves, traffic control signals, traffic signs and line markings
- the layout of existing parking and the signed parking conditions
- the distance to the nearest intersection if the intersection is not shown on the plan
- the location of all assets in the road (such as public trees, poles, pits, service cabinets, parking meters, waste collection hubs and street furniture). See Table 10.1 - Assets in public space (p.40) for details.
- the extent of all areas to be occupied by works and temporary structures
- any proposed infrastructure beyond the street alignment (including hoarding, gantry, crossings, gates, bollards and fencing)
- the existing widths of impacted footpaths and the clear width (free of all obstructions, see 15.7.1(d) above for details) remaining for pedestrian movement
- the location and specifications of any temporary pedestrian crossing proposed for pedestrian redirection (see 24 Temporary pedestrian crossings for details)
- the location and specifications of all existing and proposed vehicle crossings to be used for site access during the project
- the existing widths of impacted areas of the roadway and the clear width remaining available for public parking, bicycles and vehicle traffic (see 15.7.1 above for details)
- the location of all impacted vehicle and pedestrian access points (such as driveways, garages, doors and fire exits)
- vehicle swept paths to demonstrate the suitability of proposed access routes (including reversing movements) and any requirements for changes to traffic and parking conditions
- the location of all proposed traffic management infrastructure, including traffic and safety signs, line markings and traffic controllers.

(h) Cross-sections should accompany your plans. They should be prepared using CAD software, be presented at a larger scale and clearly indicate all relevant dimensions (such as footpath, gantry and footing widths) and height clearances.

(i) If an aspect of your CTIA can not comply with this Code, you will need to propose an alternative arrangement to meet our traffic management objectives. Before we assess any proposed alternative that could present a safety hazard, we may require you to undertake or commission an independent Road Safety Audit (RSA).

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(j) After we approve your CTIA:

(i) you must have a permit before we install any long-term parking changes (see 15.7.6(b) Construction Permit Zones for details)

(ii) you will also need to apply for permits to conduct activities where short-term road closure will be required (for example, if you need to close an area of the roadway use a mobile crane or a concrete pump).

We permit short-term activities separately from the long-term traffic management measures outlined in your CTIA. When you apply for a permit to conduct your short-term activity (such as a mobile crane lift that will require a part of the road to be closed), you will need to submit a Traffic Management Plan with your application (see 15.9.1 for details).

(k) After you are issued with the required permits:

(i) we will make the necessary changes to any on-road parking configuration or assets (for example, when you apply to have a Construction Permit Zone installed, or for Reserved Parking)

(ii) you are responsible for all other works (such as line marking changes for a lane merge, or installation of in-road bollards, gates and fencing in a Construction Permit Zone)

(l) Construction Traffic Impact Assessments are subject to variation. Proposed changes to the extent, staging or scheduling of your work may require amendments to your CTIA that require our approval. Similarly, if unforeseen circumstances occur, or changes to space use or traffic flows in the local area affect the ongoing viability of your approved CTIA, we may need to amend the conditions of our approval.

We may expire your CTIA if we determine that, as the result of multiple proposed amendments or significant changes to local traffic conditions, it no longer provides a suitable traffic management strategy. If this occurs, you may be required to submit a new CTIA for approval.

More information on CTIA amendment is available on our website.

16. All primary precautions

Hoardings, gantries and scaffolds are all temporary protective structures that are considered to be primary precautions for protection of the public.

The requirements in this section apply to all primary precautions.

Additional requirements specific to each type of primary precaution follow in subsequent sections:

- 17 Precaution – Hoardings (p.108)
- 18 Precaution – Gantries (p.120)
- (19 Precaution – Scaffolds and catch platforms (p.139).

16.1 Objectives

All primary precautions should:

- occupy the least amount of public space necessary to conduct the works
- allow for safe, efficient and unobstructed movement past the site, maximising clear footpath widths for pedestrians
- maintain good lines of sight for all road users
- be inspected after installation, and re-certified every six months, to ensure conformance with the approved engineered design.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

16.2 Installation and removal of structures

16.2.1 You must have a permit before installing any temporary protective structure beyond the street alignment in public space.

16.2.2 The installation and removal of precautions must be carried out by a suitably qualified or competent person.

16.2.3 In areas of high pedestrian flow, installation and removal of precautions should be planned to occur outside of weekday peak periods (7am-9am and 4pm-6pm) to reduce disruptions to pedestrians. See 15.6 for more information on planning works around peak times.

16.2.4 The precaution dimensions must not exceed those approved and specified in a permit.

Depending on the size of the structure, you will need to either partially or fully close the footpath and/or the roadway to install (and later, remove) it. You will need to indicate the extent of additional public space you will require during this process, and provide a Traffic Management Plan that details how all road users will be managed safely around your worksite during this time (see 15.9.1 Preparing and submitting Traffic Management Plans (TMPs) for details).

16.2.5 Temporary protective structures should be removed from public space as soon as practicable after they are no longer required for protection of the public and for facilitating works, to limit the length of time public amenity and pedestrian flows are impacted.

16.2.6 You must provide us with written notice at least 48 hours before erecting, placing in position or removing any overhead protective structure.

16.3 After installation

16.3.1 After the structure has been installed and prior to its use, a structural engineer must attend and inspect the structure on-site.

(a) Within 48 hours of completing the installation, you must submit the inspection report to us that confirms:

(i) the kPa rating of gantry and scaffold structures

(ii) the structure has been installed as per the structural design

(iii) the structure complies with the relevant standards and with our approval.

(b) Remote inspections via photographs or other means are unacceptable.

16.3.2 We may also inspect the structure to ensure it has been installed as per the approved permit. We will also check that it complies with this Code, the permit conditions and any other relevant legislation or guidelines.

16.4 Re-certification of the structure

16.4.1 Every six months a structural engineer must attend and inspect the structure on-site. You must submit this inspection report to us, confirming the structure remains constructed as per the original design.

16.5 Maintenance

16.5.1 Temporary protective structures and all their components must be well maintained and kept in good condition, free from graffiti, bills, dirt, sharp edges, protrusions, catch points, entanglements and entrapment points and maintained to our satisfaction.

16.5.2 Where a structure is damaged or defaced (for example, if graffiti or bills are placed on hoarding panels or gantry columns), it must be repaired back to original condition. This may require repainting or replacing individual components. See 12.3.4 for details.

16.6 Lighting

Ensuring that a temporary structure and the surrounding area is adequately and appropriately lit is critical in ensuring public safety around precautions placed beyond the street alignment.

The following requirements apply to all temporary protective structures (hoardings, gantries and scaffolds):

16.6.1 Lighting design

(a) The structure must be well lit.

(b) The existing lux levels at street level must be noted in your site plan and the structure should be designed so that it does not alter those levels. Where this is unavoidable, temporary lighting must be provided to maintain the existing lux levels or the lux levels calculated according to (c) below, whichever is higher. You must engage a suitably qualified engineer to assist you with determining lux levels.

(c) If existing public street lighting will be impacted as a result of the structure (for example, if a street lighting pole or wall-mounted street light needs to be removed to accommodate the structure), temporary street lighting must be installed to compensate for the loss of lighting.

(i) If any modification of street lighting will be required, you must obtain written approval from the coordinating road authority and the responsible power authority.

(ii) You must submit a lux level plan showing the provision of temporary street lighting to the responsible road authority for approval.

(iii) We may require you to lodge a security to guarantee municipal assets during these works (see 10.4.2 Security deposits and bonds for details).

(d) When temporary street lighting is required, public lighting for roads and footpaths not covered under a structure should be designed as follows:

(i) on arterial roads and Council major roads – to comply with AS/NZS 1158.1.1 Vehicular Traffic (Category V) Lighting. Generally, the minimum requirement should be V3.

(ii) on Council minor roads and laneways – to comply with AS/NZS 1158.3.1 (Lighting For Roads And Public Spaces – Pedestrian Area (Category P) Lighting – Performance And Design Requirements). Generally, the minimum requirement should be PR3 or PP3 as applicable.

(e) Any electrical cables or conduits you intend to run alongside or under the structure in public space must be compliant with AS/NZS 3000 Electrical Installations (known as the Australian/New Zealand Wiring Rules) and require an exemption from Energy Safe Victoria to run private electricity in a public space. You must obtain this exemption prior to any works commencing and provide a copy of this with your permit application.

(f) Any metering equipment must be installed in accordance with the requirements of the electricity supply authority. Installations should be recessed or flush with surfaces that can be accessed by the public, and ensure that no part of the equipment (including frame, cabinet, handle, latch and lock) presents a tripping or catch hazard.

16.6.2 Lighting installation, operation and maintenance

(a) All electrical work in public space must comply with the current electricity safety legislation and regulations.

(b) Lighting installed on or around the structure must comply with AS/NZS 1158 (Lighting for Roads and Public Spaces).

(c) Energy efficient luminaires must be used.

(d) Lighting must be protected by wire guards or proprietary diffusers.

(e) The lighting system must be controlled by either sensors or timers programmed to automatically switch on when there are low levels of natural light (for example, from before sunset until after sunrise) to create the safest possible environment for pedestrians and other road users.

(f) Lighting must operate all of the time in areas with low levels of natural light (for example, narrow laneways).

(g) Lighting must be increased in locations where the footpath treatment changes (such as a temporary pedestrian ramp or a vehicle crossing into a site) to assist pedestrians in safely navigating these areas.

(h) Lighting must be provided above all signage attached to the structure (for example, above the 'Pedestrians watch your step' sign at each end of a gantry). Luminaires and conduits must not be installed or fixed over signage or artwork attached to the structure.

(i) Cabling must be securely and neatly affixed to the structure.

(j) Wiring should be concealed where possible. Exposed wiring elements (for example, conduits and cabling) must be painted to match the colour of the background surface structure to improve the overall appearance. For specific colour requirements, refer to 17.4.3 (hoarding), 18.3.15 (gantry) and 19.3.19 (scaffolding).

(k) Luminaires must be checked on a weekly basis to ensure they are in working order.

(l) Lighting glare and light spill must be closely managed:

  (i) Lighting glare must be controlled as per AS/NZS 4282 (Control of the obtrusive effects of outdoor lighting).

  (ii) Oncoming traffic must be shielded from lighting glare.

  (iii) Light spill must be minimised to avoid creating a nuisance to nearby properties, particularly residential properties. If we deem it to be a nuisance, we may require you to modify the lighting system.

  (iv) Upward light spill into open spaces is not acceptable.

16.7 Signage

16.7.1 Promotional signage

(a) Temporary protective structures may display the minor and appropriately-placed name of the equipment owner or hire company.

(b) Anything else is considered promotional signage under the Melbourne Planning Scheme and will require separate planning permission from the City of Melbourne (such as advertisements, bills, a company name printed excessively or disproportionately across equipment like hoarding panels/banners/shade cloth, the name or imagery of a forthcoming development, or any other text or image).

- See 17.3.4 for displays that are permitted on a hoarding without requiring separate planning approval.
- See 20.3.7 for displays that are permitted on a crane.

(c) Signage must not be illuminated after hours unless specifically approved in a planning permit.

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16.8 Network systems in the central city and other key areas

16.8.1 Safe City Cameras and CBD Public Address System

(a) We run a network of Safe City Cameras that play an important role in monitoring incidents on city streets, deterring and detecting crime and creating a safer environment for our community. Lines of sight from these CCTV surveillance cameras must not be impacted or obstructed in any way, at any time – whether it be by temporary protective structures, crane operations or by a new or reconstructed building as construction progresses.

(b) The Public Address System is used to communicate important messages to the community in an emergency and must not be disabled, muffled or affected by your works in any way, at any time. Speaker sets are often co-located with the Safe City Cameras.

(c) You must identify any cameras and speakers on your site plan and confirm that these will not be impacted by your works. If you are unsure whether your works will obstruct camera lines of sight or speaker operation, you should contact us to discuss, prior to finalising your site plan.

(d) The wireless link nodes and antennas for the camera network must not be impacted or obstructed in any way, at any time.

(e) If obstruction or impact is unavoidable, cameras, wireless links, antennas and/or speakers must be relocated, at your cost. This can be a costly exercise and should be avoided wherever possible. You must not remove or cover any safety assets – if needed, we will arrange this and invoice you for the work involved. You must provide sufficient lead time for this to occur.

16.8.2 If private property cameras and traffic monitoring cameras will be impacted or obstructed, you must consult with the asset owner or responsible authority and come to an alternative arrangement with them.

16.8.3 Pedestrian sensor network

(a) We own and manage a network of pedestrian monitoring sensors located throughout the central city and surrounding suburbs. The data collected from these sensors informs our planning and decision making, and helps us manage disruptions, events and emergency situations. You must not obstruct, remove, relocate, modify or impact the operation of the sensors in any way, at any time – whether it be by temporary protective structures or works activities.

(b) You must identify any sensors on your site plan and confirm these will not be impacted by your works. If you are unsure whether your works will impact a pedestrian sensor, or have identified a sensor in the vicinity of your works, you should contact us to discuss, prior to finalising your site plan.

(c) If obstruction of a pedestrian sensor is unavoidable, the sensor may need to be moved to an alternative location, at your cost. You must not disconnect or remove a sensor – if needed, we will arrange this and invoice you for the work involved. You must provide sufficient lead time for this to occur.

16.8.4 Parking sensor network

(a) We operate a parking sensor network throughout the central city and other key areas. Data from this network enables a consistent and accurate real-time approach to parking management across the municipality. The gateways and relays for the sensor network must not be impacted or obstructed in any way, at any time – whether it be by temporary protective structures or works activities.

(b) You must identify any gateway or relay device on your site plan and confirm that these will not be impacted by your works. If you are unsure whether your works will obstruct their operation, you should contact us to discuss, prior to finalising your site plan.

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(c) If obstruction or impact is unavoidable, gateways and relays must be relocated, at your cost. You must not remove or interfere with these assets – if needed, we will arrange this and invoice you for the work involved. You must provide sufficient lead time for this to occur. Relocation is a significant and costly exercise that could delay your project and should be avoided wherever possible.

17. Precaution – Hoardings

Hoardings are a temporary protective structure forming a barrier between the worksite and the public space, providing protection to the public and restricting access to the site. Hoardings must be well designed and constructed to minimise the impact they have on the public. In this section, timber panel hoardings and temporary chain wire fencing are collectively referred to as 'hoardings' unless otherwise specified.

Our preference is for hoardings to be placed within private property or along the street alignment, although we recognise this will not always be possible (for example, where construction is occurring on the ground floor).

17.1 Objectives

In addition to our objectives for all primary precautions (see 16.1), all hoardings should:

- enclose the worksite and protect the public from activities occurring within it
- be appropriately designed for the site, wind loads and nature of works being undertaken
- be constructed to a high standard with quality materials and finishes
- be used in conjunction with gantries and scaffolds to cover all structural elements on the site side
- provide viewing windows where appropriate.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

Hoardings must meet the requirements outlined in 16 All primary precautions, in addition to those listed below.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

17.2 General considerations

17.2.1 You must have a permit before erecting a hoarding in public space (even if a hoarding was provisionally approved as part of your Report and Consent, CMP or CTIA).

17.2.2 Hoardings must comply with AS 4687 and be designed to withstand wind loads in accordance with AS/NZS 1170.2.

17.2.3 Hoardings must be designed and certified by a structural engineer, with all elements shown in a dimensioned site plan.

17.2.4 The hoarding must be positioned as close as possible to the street alignment along all site frontages. You should design your hoarding to occupy the least amount of public space as possible, maximising the clear path width available to pedestrians (see 15.7.1 for requirements) and minimising any disruption to road users.

17.2.5 There are two fencing types (collectively referred to as 'hoardings' unless otherwise specified) permitted in the municipality:

(a) A solid timber panel hoarding, which must be used if:

(i) fencing is required for more than 14 consecutive days

(ii) demolition is occurring close to the street alignment

(iii) deep excavation is occurring anywhere on site

(iv) the works will generate excessive dust or noise

(v) it is being used alongside a gantry or scaffold (see 17.6 for details).

See 17.3.6(b) for our timber hoarding requirements.

(b) Temporary chain wire fencing, which may be used to secure a site for a maximum 14 consecutive days if:

(i) the works will take less than this time to complete

(ii) the fencing needs to be moved repeatedly during this time

(iii) the fencing is appropriate for the type of work being carried out.

See 17.5 for our temporary fencing requirements.

17.2.6 Some organisations such as the responsible road authority, utilities and public transport providers (and their agents) may continue to use temporary fencing for works longer than 14 consecutive days where required, provided the works will not generate excessive noise and dust.

17.3 Requirements for all hoardings (timber hoarding and temporary fencing)

17.3.1 General requirements

(a) The hoarding must be capable of enclosing all building works within it.

(b) Where the site and/or works can accommodate it, the return sides of the hoarding (that is, where the hoarding protrudes from the street alignment and creates an obstruction in the pedestrian path) should be splayed at a 45 degree angle to avoid a 90 degree corner placed on the footpath. See Figure 17.1, p.110.

(c) The hoarding face must follow a straight path along any site frontage as much as possible.

(d) We strongly discourage creating any alcoves in the hoarding face, to maintain passive surveillance. If this is unavoidable, alcoves should have splayed sides and additional lighting. See 17.3.5 for alcove lighting requirements.

(e) The hoarding should not protrude past the site frontage unless the adjoining property owner or manager has been consulted and provides their consent (see 6.5 Consultation for details).

(f) If the permanent property address is obscured by the hoarding, the property address (number) must be clearly displayed on the hoarding, to satisfy the requirements of our Activities Local Law 2019.

(g) We encourage you to employ noise reduction measures (such as fitting acoustic curtains or acoustic barrier panelling to the hoarding) where noisy works could impact residential properties. See 14.3 for more information on noise reduction.

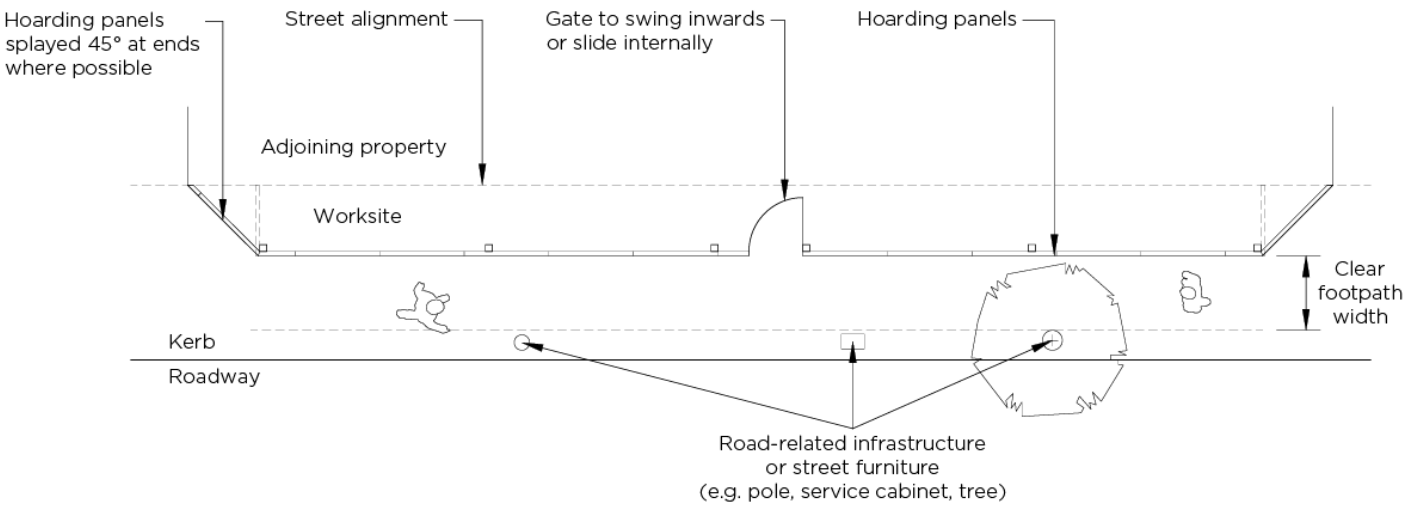
(h) Hoardings must be well maintained. See 16.4 Re-certification of the structure and 16.5 Maintenance for details.

17.3.2 Traffic management around hoardings

(a) The minimum unobstructed width for a pedestrian path outlined in 15.7 Managing pedestrians, cyclists and vehicles must be maintained alongside the full length of the hoarding at all times. This is measured across the footpath from the hoarding plinth (or outermost part of temporary fencing feet) to the kerb (or the nearest non-relocatable item, such as trees or service cabinets). See Figure 17.1 (p.110), Figure 17.3 (p.115) and Figure 17.6 (p.119) for details.

- If you cannot maintain the minimum unobstructed width for a pedestrian path alongside your hoarding, you will need to close part of the roadway to provide a pedestrian bypass to safely divert pedestrians past the site. See 15.7.2 Moving pedestrians past your worksite for requirements.
- If road-related infrastructure (such as street lights, parking signs and parking bays) or street furniture (such as bench seats, bins and bicycle hoops) will need to be removed or relocated to accommodate the hoarding and/or create an unobstructed path for pedestrians alongside your hoarding, see 10.4.5 for instructions and a full list of potentially affected items.

Figure 17.1 - Hoarding plan view (and how to measure the clear footpath width)



(b) In addition to all requirements outlined in 15 Traffic management, other traffic management considerations related to hoardings are as follows:

(i) Hoardings must not obscure any existing lines of sight to traffic control signals and signs from any approach so that they remain clearly visible to drivers and pedestrians at all times.

(ii) Hoardings must be set back by a minimum 2500 mm from any pedestrian crossing, driveway, garage entrance, intersection or bus stop, so as not to obstruct the lines of sight between pedestrians and drivers.

(iii) Hoardings installed on corner properties must be splayed at the intersection for a minimum length of 1000 mm or as required to maintain sufficient lines of sight for all road users. We encourage a longer length if the site can accommodate it.

(iv) Hoardings and counterweights must not be placed over paving lights.

17.3.3 Setback from the kerb

(a) Where your proposed hoarding will occupy the majority of footpath and be positioned close to the kerb (i.e. with pedestrians redirected around the worksite via a bypass on the roadway or the footpath on the opposite side of the road), the distance between the face of the kerb and hoarding must be a minimum 550 mm where public parallel parking is permitted, to allow for passengers to enter and exit parked vehicles. This distance may be reduced to 300 mm where public parking is not permitted at any time (for example, if an all-hours Construction Permit Zone is in place).

17.3.4 Signage and attachments on the hoarding

(a) Warning signage

(i) All warning signage on and around the hoarding must be erected in accordance with AS 1742.3 and Department of Transport's Code of Practice for Worksite Safety – Traffic Management 2010, as stipulated in the Road Management Act 2004.

This includes "Watch your step" and "Pedestrians →/← (arrow)" signs to be placed at a height of 2200 mm on the return sides of the hoarding to alert oncoming pedestrians of the changed conditions ahead. See Figure 17.3, p.115.

(ii) Height limit signage and "Caution – trucks crossing" signage are required on or above any vehicle access gates into the site.

(b) Any barbed wire, razor wire, chicken wire or the like affixed to any part of a hoarding must begin no less than 2400 mm above the adjacent surface pavement.

(c) Project information and promotional signage

(i) The only displays allowed on a hoarding that do not require planning permission are:

- the project's information board (see 0 for details)
- the property address (number), if the information board is not displayed on the hoarding (see 17.3.1(f) above)
- the minor and appropriately placed name of the equipment owner or hire company
- one advertising panel less than 10 sq.m that is publicising the sale or letting of the property on which it is displayed (in line with the exemption in the Melbourne Planning Scheme). Only one sign may be displayed, it must not be an animated sign and it must not be displayed longer than seven days after the sale date. If there are multiple street frontages and you are seeking an advertising panel for each street frontage, you'll require separate planning permission. The information board can be incorporated into this advertising panel or be displayed separately.

(ii) See 16.7.1 Promotional signage for advice about other types of hoarding displays that will require separate planning approval (for example, advertisements and posters).

17.3.5 Lighting

In addition to all requirements set out in 16.6 Lighting, the following requirement applies to all hoardings:

(a) While we discourage the creation of alcoves with your hoarding, if this is unavoidable, additional lighting must be installed in the alcove and be operational when there are low levels of natural light.

17.3.6 Public tree protection

In addition to all requirements outlined in 11 Public trees and green infrastructure, the following requirements also apply to hoardings:

(a) If your hoarding will be placed within a Tree Protection Zone, you must submit a Tree Protection Plan (see items 11.2.2 Tree Protection Zones and 11.2.3 Tree Protection Plans) with your permit application that meets all requirements outlined in 11 Public trees and green infrastructure and shows the proposed hoarding in relation to the nearby public tree(s).

(b) The hoarding must be designed to minimise impacts on public trees and avoid the need for pruning. This may require designing a custom hoarding for the site, instead of using a prefabricated product. No part of the hoarding may be located within a tree plot or be in contact with any part of a tree.

17.4 Additional requirements for timber hoardings

17.4.1 Panel specifications

(a) Hoarding panels must be constructed of minimum 12 mm thick timber or plywood and must be a minimum 2400 mm high. See Figure 17.2, p.113.

(b) A timber plinth should be affixed to the top and bottom of the hoarding to improve its overall appearance. The plinth must be a maximum 25 mm thick and 150 mm high. See 17.4.3(a) for colour requirements.

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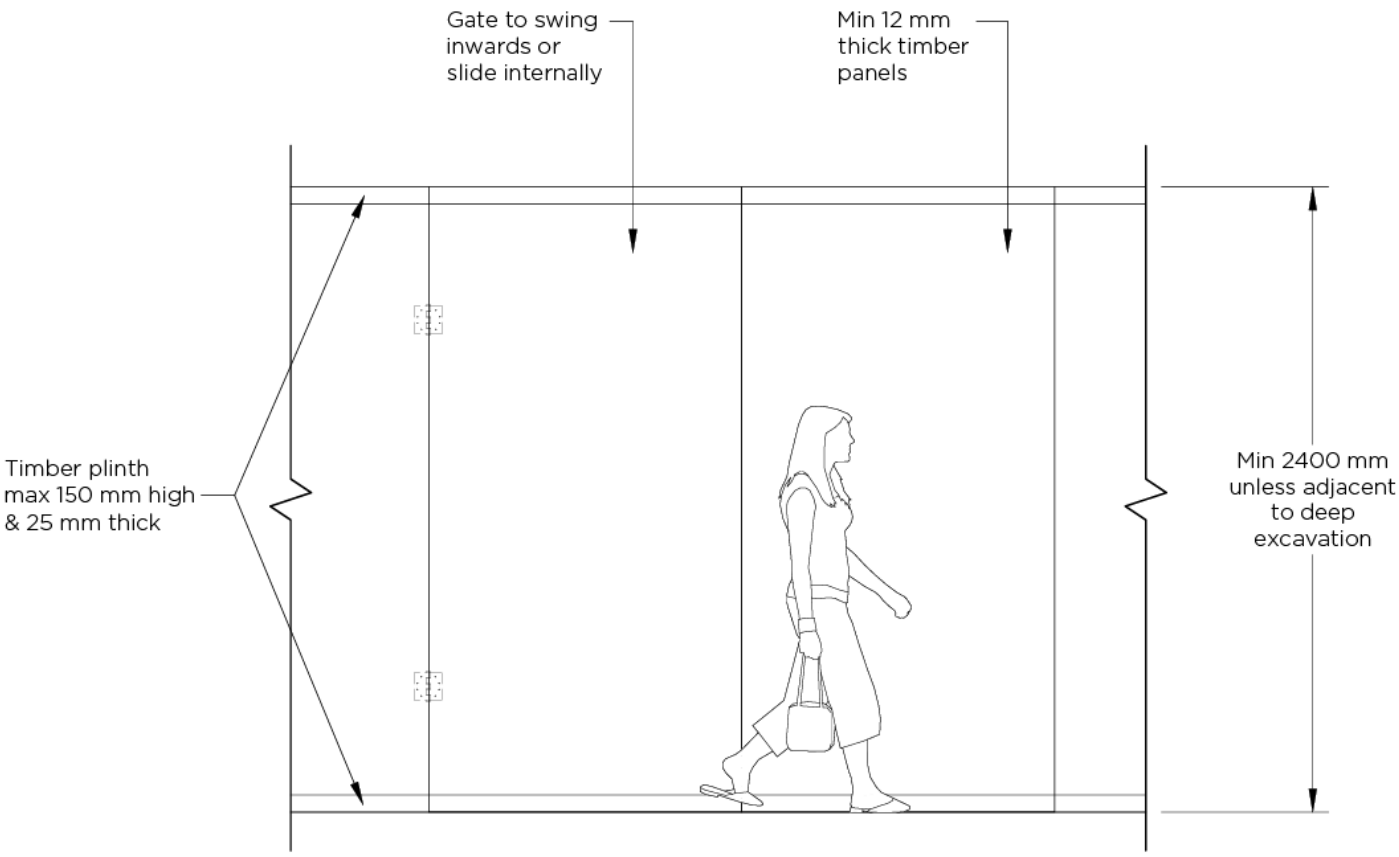
Figure 17.2 - Hoarding front elevation



(c) Hoardings at demolition sites:

(i) In accordance with AS 2601, a hoarding is required where a footpath is located immediately adjacent to a demolition site and demolition will be occurring close to the street alignment. As per (a) above, we require this hoarding to be 2400 mm high.

(ii) Overhead protection will also be required – see 18.3.11 for more information.

(d) Hoardings at sites with deep excavation:

(i) The only exception to (a) above is a hoarding installed at a site where deep excavation will occur, which must be a minimum 2700 mm high.

(ii) Hoardings at sites with deep excavation must be designed to withstand a lateral line load of 0.75 kN/m applied at a height of 1000 mm from the base (caused by an errant vehicle, for example). As such, hoardings at sites with deep excavation will require a vehicle impact protection risk assessment to be conducted by a suitably qualified person to determine the likelihood of an errant vehicle colliding with the hoarding, with any recommendations implemented to our satisfaction.

- This is not required if there will be a gantry positioned in front of the hoarding, provided the gantry is suitably protected from vehicle impact.

(iii) Vehicle impact protection measures must be designed by a suitably qualified person based on the specific site conditions (such as location and type of hoarding, proximity to the road, traffic speed and conditions, geometry of the road, location of nearby intersections, whether it is situated on a single, dual lane or multi-lane roadway and whether impact is a greater possibility such as at an intersection or sharp bend). Proposed measures must be shown in your CTIA (or TMP, for hoardings that will be in place for less than 4 weeks).

(iv) Any vehicle impact protection measures must satisfy the same criteria as gantries, if there is no gantry in place (see 18.3.12 Vehicle impact protection for details.

17.4.2 Panel installation

(a) Panels must stand flush with the ground surface as much as possible. On sloping sites, hoardings must be graduated with the footpath slope, using plywood panels to infill any gaps.

(b) Panels must be arranged to create a smooth and seamless face without any gaps, improving the overall appearance and reducing emission of noise and dust from the worksite. To prevent injury to pedestrians, hoarding components such as fasteners must not protrude from this face.

(c) No supports or protrusions are to overhang the top of the hoarding, as this could pose a hazard to pedestrians.

17.4.3 Colour and visibility requirements

(a) Hoarding panels and the top plinth must be painted in a uniform dark colour – preferably Teahouse Grey PG1.F6.

(b) The bottom plinth must be painted white, to provide luminance contrast against the footpath surface to assist people with low vision. The plinth must be regularly cleaned or brushed down to ensure it remains free of dirt to provide this contrast.

(c) On the return sides of the hoarding, a contrasting strip of retroreflective adhesive tape 75 mm wide must be placed horizontally across the hoarding face between 900 mm and 1000 mm above the footpath surface level (in accordance with AS 1428.1), to maximise visibility in low light conditions and warn pedestrians of the changed conditions ahead. See Figure 17.3, p.115.

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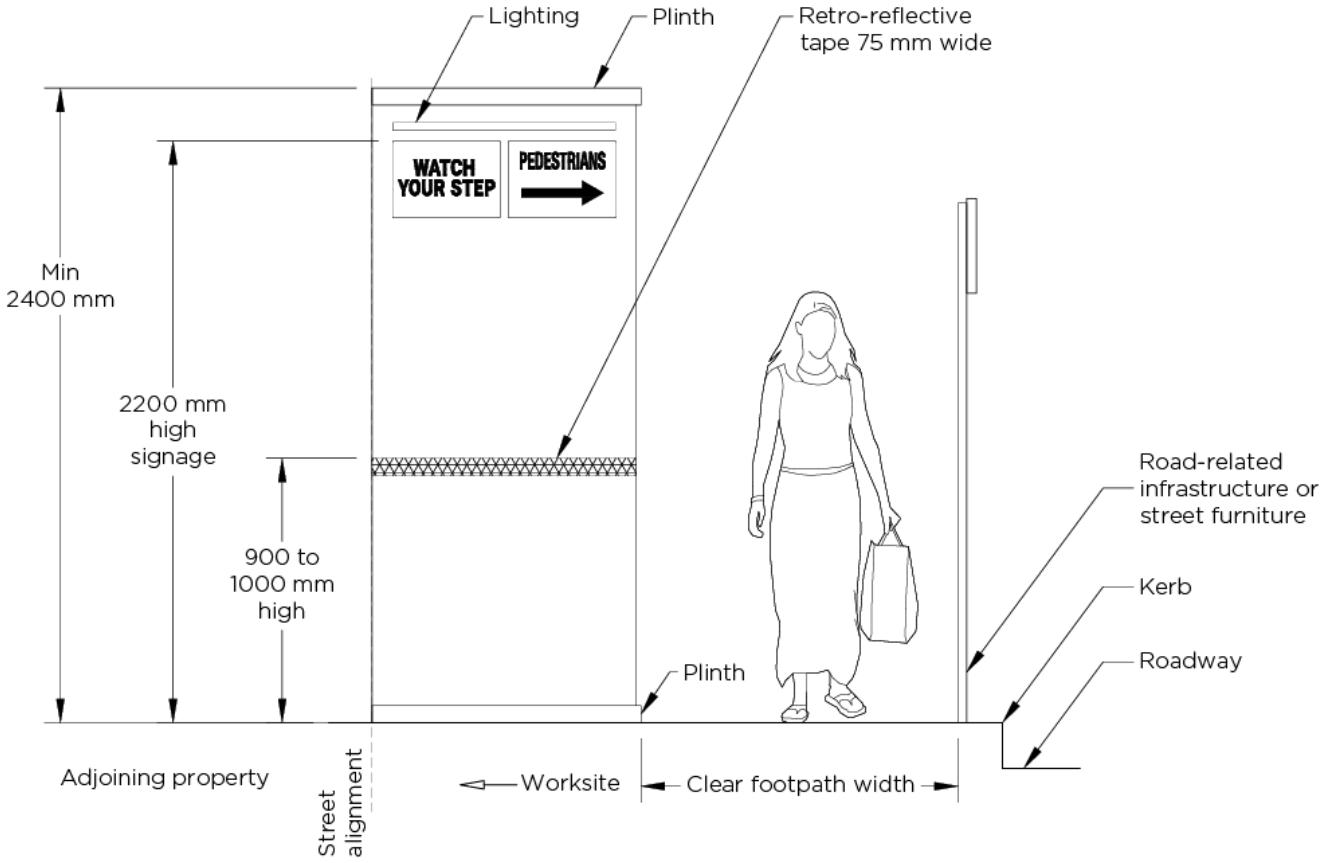
Figure 17.3 - Hoarding side elevation (and how to measure the clear footpath width)



(d) We encourage you to consider commissioning your own site-specific artwork to be printed and applied on the hoarding, to lessen the visual impact of the building site. This is particularly encouraged where the hoarding will be in place for an extended period, is located in a prominent location in the central city, or where a hoarding will surround a heritage or culturally significant building.

(i) We can assist by providing:

- information about things to consider
- a list of interested and capable artists
- a template commission agreement
- advice on appropriate fees.

(ii) You should contact us to discuss whether your proposed artwork will require separate planning approval.

(iii) You will also need to consider accessibility requirements to ensure that the surfaces of your proposed hoarding will be readily perceived by people with low vision.

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17.4.4 Personnel and vehicle access gates

(a) Gates must:

(i) be made of solid material, with minimal gaps around the door frame to reduce noise and dust emission

(ii) be the same height and colour as the hoarding to create a seamless appearance

(iii) have no sharp edges or anything projecting from them

(iv) open inward towards the site or slide open internally

(v) be lockable and remain closed when not in use.

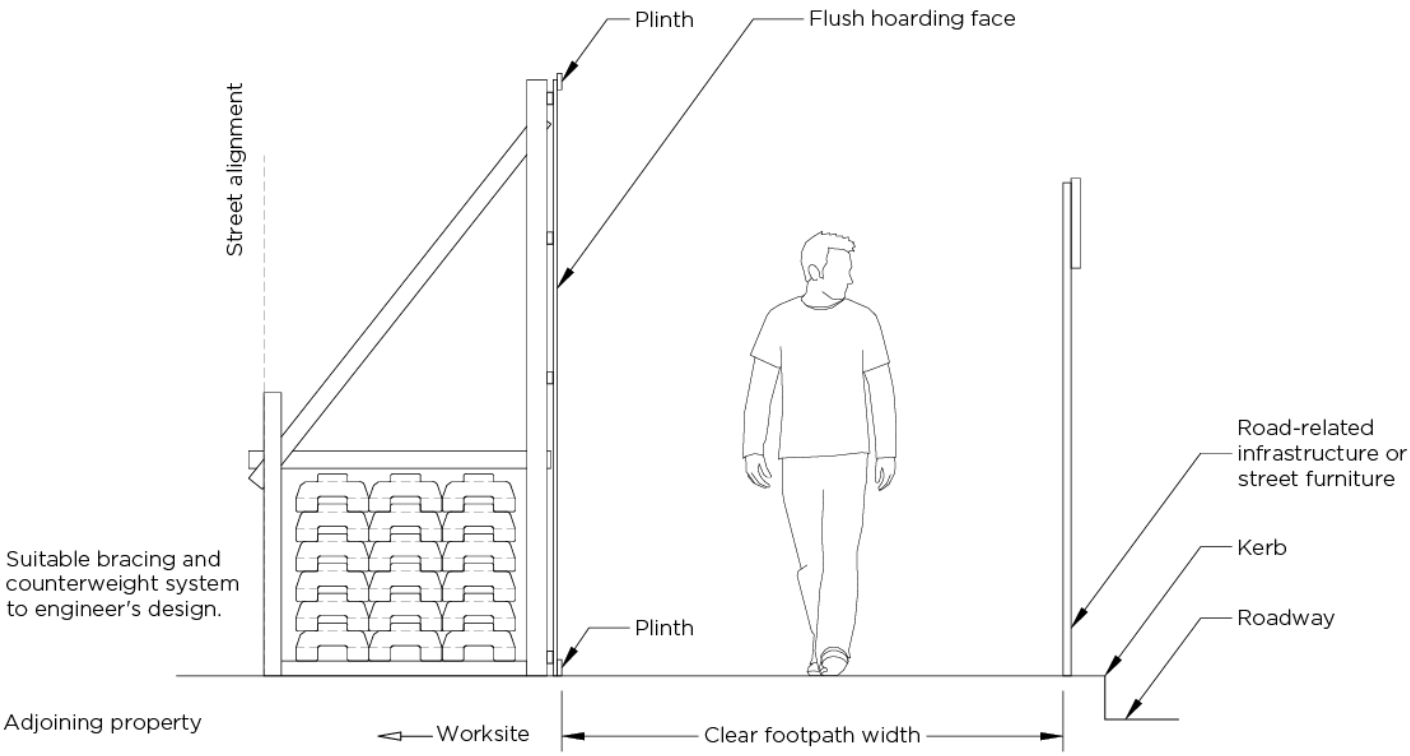
(b) Electronic gates must include fail-safe unlatching and release mechanisms, and provision for 003 key access for emergency services.

(c) Traffic control measures must be implemented around vehicle access gates in accordance with AS 1742.3. See 17.3.4(a)(ii) for signage requirements.

17.4.5 Counterweights and fixing a structure to the footpath

(a) Our preference is for hoardings to be freestanding with suitable counterweights (to meet the wind loads specified in AS/NZS 1170.2) so you don't damage the surface. See Figure 17.4.

Figure 17.4 - Side elevation of freestanding hoarding with counterweights (preferred option)



(b) Where the use of counterweights is not possible due to site constraints (for example, if the footpath is too narrow to accommodate counterweights and the minimum required pedestrian widths), you may affix the hoarding to the footpath with bolts, masonry anchors or the like, provided a structural engineer confirms the footpath type can safely support this.

- In the City of Melbourne, we have a combination of bluestone, concrete and asphalt footpaths with varying thicknesses – the construction of which can be found on our Engineering Standard Drawings webpage.
- When fixing to a bluestone footpath the anchor must extend into the reinforced concrete slab below, in accordance with the engineer's design.

(c) Where affixing the hoarding to the footpath is not possible due to the footpath type, you may install concrete footings to affix the hoarding to the ground surface. Footings must be removed when the hoarding is dismantled, and the area reinstated to our satisfaction (see 10.6.2 Reinstatement of our assets for details).

(d) If you elect to use a fixing system outlined in (b) or (c) above:

(i) It must maintain a minimum offset to underground services and infrastructure in accordance with the requirements of the asset owner. See 22.2.2 Underground and overhead assets for further information about determining whether any underground infrastructure is likely to be affected.

(ii) You must obtain the formal approval of the asset owner where your fixing system will be located within the clearance specified by the asset owner.

(iii) You must submit the following information with your permit application:

- detailed engineering drawings of the proposed fixing system, showing relevant construction details and the exact location of footings in relation to road infrastructure and underground services, certified by a structural engineer
- documentation of any third party approvals as outlined in (ii) above
- a Tree Protection Plan if the works are proposed to occur within the Tree Protection Zone of a public tree (see 11.2.3 Tree Protection Plans for details).

17.4.6 Viewing windows

(a) We encourage the use of viewing windows, particularly for sites with deep excavation. However they may not be appropriate on arterial roads or in narrow or busy streets, where pedestrians might congregate and obstruct the footpath.

(b) For long hoardings, we encourage multiple windows evenly spaced across the hoarding length.

(c) Windows must be made of a transparent material (such as clear acrylic or polycarbonate sheet) with a minimum 12 mm thickness, fixed to the inside of the hoarding. Materials used must pass the impact test in AS 4687 and be well maintained for the duration of their use.

(d) The window size should be determined by your project's structural engineer to ensure the structural integrity of the hoarding is maintained around any window openings. However, a person of any size must not be able to pass through the window if the transparent panel were to be removed. The proposed dimensions must be shown on the plan submitted with your hoarding application.

(e) The bottom of the window should be a maximum 1200 mm off the footpath surface to ensure wheelchair users and people of smaller stature can view site works.

(f) Once the development is constructed to ground level, windows must be removed or infilled with plywood to achieve a smooth and seamless hoarding face, and be painted the same colour as the other hoarding panels.

17.5 Additional requirements for temporary fencing

17.5.1 Fencing specifications and use

(a) Temporary chain wire fencing must have mesh infill panels that are minimum 1800 mm high, with individual panels securely interlocked. See Figure 17.5.

(b) Fencing must be designed with counterweights as necessary to prevent overturning in order to meet the wind loads specified in AS/NZS 1170.2. See Figure 17.6, p.119.

(c) Shade cloth must be tightly fitted across each panel to contain dust and improve the visual security of the site. As per AS 4687, the use of shade cloth on temporary fencing requires additional bracing to ensure the fence is capable of withstanding wind loads. See Figure 17.5.

(d) If the fence feet will be installed perpendicular to the fence, a sturdy handrail must be installed on the fence to offset pedestrians from the feet to avoid trip hazards.

(e) In line with AS 1428.1, handrails must be placed at a height between 865 mm to 1000 mm from the footpath surface, with a 30 mm to 50 mm diameter. There must be a 50 mm clearance between the inside of the handrail and the fence, and a minimum 30% luminance contrast to the background shade cloth (for example, a steel handrail against black shade cloth achieves this colour contrast). See Figure 17.5 and Figure 17.6, p.119.

(f) When opening a fencing panel to enter or leave the worksite, it must be opened inwards towards the site and fixed back into place immediately, to prevent unauthorised access to the site.

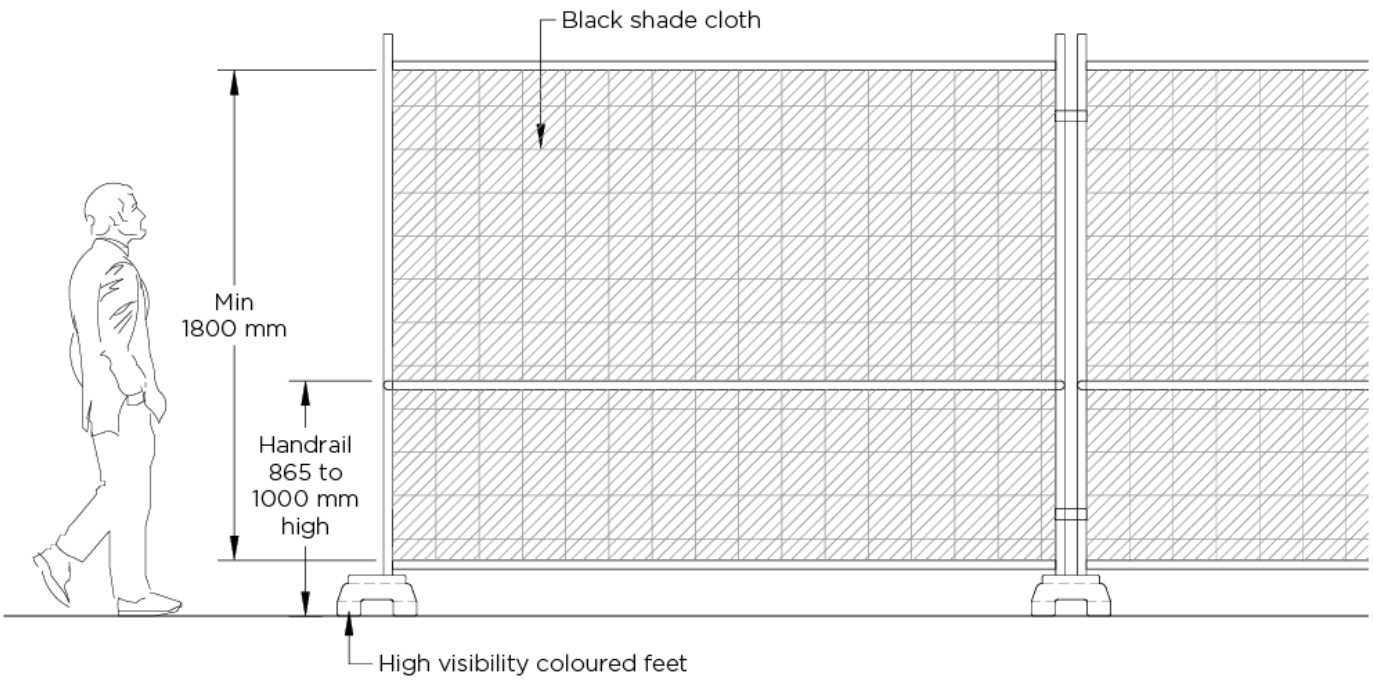
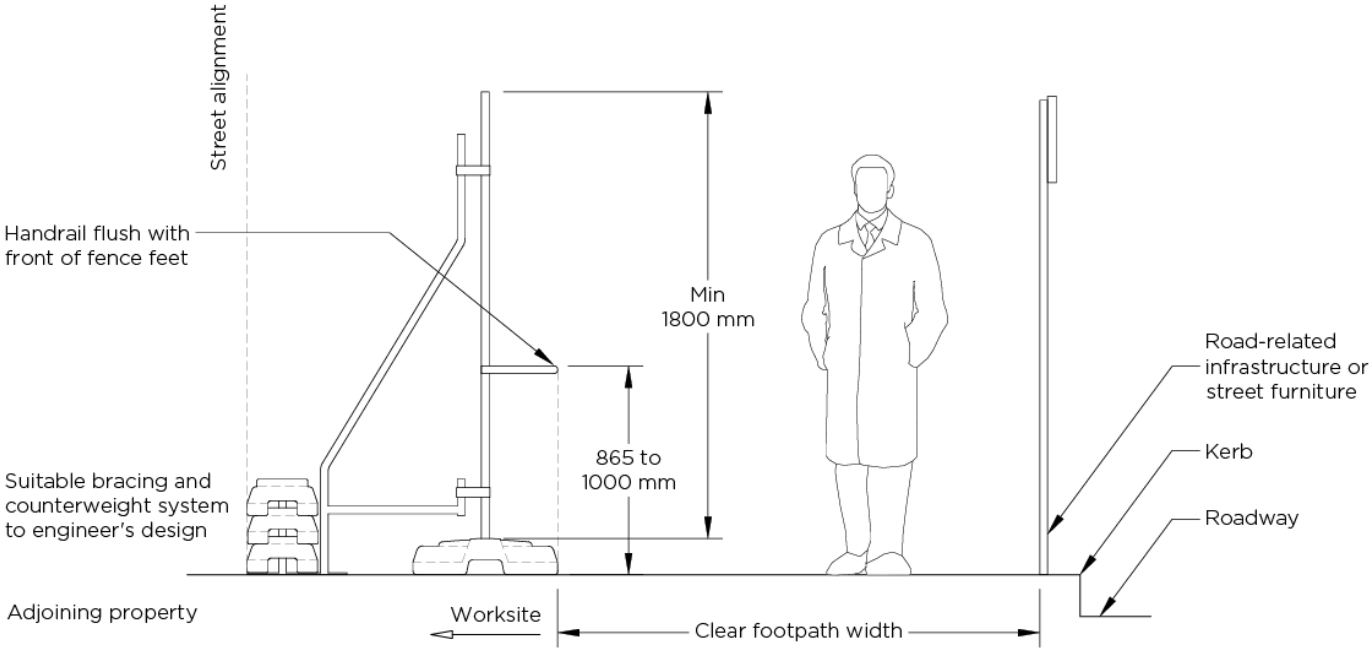


Figure 17.5 - Temporary fencing front elevation

Figure 17.6 - Temporary fencing side elevation (and how to measure the clear footpath width)



17.5.2 Colour and visibility requirements

(a) Shade cloth must be a uniform dark colour, preferably black.

(b) Fence feet must be a high visibility colour, such as yellow or orange.

17.6 Additional requirements for hoardings used in conjunction with gantries and scaffolds

17.6.1 Wherever a gantry or a scaffold that is mounted directly on the footpath is installed to facilitate demolition or building works, a timber panel hoarding is also required alongside the worksite on all frontages to enclose the work occurring within it. A temporary fence cannot be used with a gantry or scaffold.

17.6.2 The hoarding must cover all structural elements of the gantry or scaffold on the site side (such as gantry columns/soleplates/cross bracing or scaffold standards/soleplates), so that the smooth and seamless hoarding face has no protrusions that could pose a trip or catch hazard for pedestrians. The gantry knee brace is the only structural element that can protrude from the hoarding above head height.

17.6.3 For gantries over the footpath, a protective barrier must be placed between the top of the hoarding and the underside of the gantry beam. The barrier must not allow dust or material to pass through it (for example, a solid plywood hoarding panel or a mesh infill). This is intended to prevent public access to the worksite and provide additional protection to pedestrians from any debris. It must be painted the same colour as the hoarding (see 17.4.3(a)).

For all requirements and related figures, see 18 Precaution – Gantries and 19 Precaution – Scaffolds and catch platforms.

18. Precaution – Gantries

A gantry is the main temporary protective structure used for providing overhead protection to pedestrians and other road users from small falling objects where building, demolition or lifting activity is occurring close to or over the street alignment in public space.

Gantries are often paired with hoardings and perimeter scaffold – the gantry provides overhead protection, while the hoarding encloses the site and the scaffold facilitates works on higher storeys. Gantries are typically made of structural steel. For 'scaffold coverways' or 'scaffold gantries', see 19 Precaution – Scaffolds and catch platforms.

There are many considerations when siting and designing a gantry – such as various loading factors, providing safe passage for pedestrians while maximising clear accessible footpath widths, protection from errant vehicles, protection of nearby trees, whether a hoisting zone will be in operation and the impact on surrounding properties.

18.1 Objectives

In addition to our objectives for all primary precautions (see 16.1), all gantries should:

- protect pedestrians, cyclists and vehicles from falling objects
- be appropriately designed for the site, for the nature of works being undertaken and for all imposed loads
- be designed to be as visually open as possible
- be suitably protected from the risk of vehicle impact or be designed to remain safe and stable in the event of a vehicle impact
- consider adjoining properties in their placement and operation
- facilitate safe lifting operations.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

Gantries must meet the requirements outlined in 16 All primary precautions, in addition to the ones listed below.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

18.2 General considerations

18.2.1 You must have a permit before erecting a gantry in public space (even if a gantry was provisionally approved as part of your Report and Consent, CMP or CTIA).

18.2.2 Gantries must comply with all relevant Australian Standards.

18.2.3 Gantries must be designed and certified by a structural engineer, with all elements shown in a dimensioned site and floor plan (inclusive of elevation).

18.2.4 All constructions of three storeys or higher must have a gantry along all street frontages.

18.2.5 Gantries must be positioned as close as possible to the street alignment adjacent to the site. You should design your gantry to occupy the least amount of public space as possible, maximising the clear path width available to pedestrians (see 15.7.1 for requirements) and minimising any disruption to road users.

18.2.6 Hoardings paired with gantries

Wherever a gantry is installed, a hoarding is also required alongside the worksite to:

(a) enclose all work occurring within the site

(b) enclose all structural elements of the gantry on the site side (such as columns, soleplates and cross bracing).

See 17.6 Additional requirements for hoardings used in conjunction with gantries and scaffolds for requirements.

18.2.7 Permitted gantry types

There are three gantry types permitted in the municipality:

(a) Light duty

(i) A light duty gantry is designed for live loads of 5 kPa (see 18.4.3 Deck live loads), so this is suitable:

- for minor works being carried out on a building, such as maintenance (like painting or cleaning) or façade restoration (like the replacement of light weight combustible cladding) – regardless of what storey the works are occurring on
- when building works are limited to three storeys (up to 10 m high).

(b) Heavy duty

(i) A heavy duty gantry is designed for live loads of 10 kPa (see 18.4.3 Deck live loads), so this is suitable for building works four storeys or higher (10 m or higher) or demolition work.

(c) Special duty

(i) A special duty gantry is designed for live loads of 10 kPa, in addition to the loads imparted to it by a combination of structures or storage proposed on the deck and horizontal impact loads at hoisting zones (see 18.4.3 Deck live loads), so this is suitable if:

- you propose to mount anything on the gantry deck – such as scaffolding or other hoisting equipment (like personnel and material hoists or mast-climbing work platforms)
- you propose to store anything on the gantry deck – such as plant, materials or site sheds
- there will be a hoisting zone adjacent to the gantry to facilitate lifting activities.

See 18.4 Structural design requirements for the full loading requirements for each gantry type.

18.2.8 Gantries over roadways

We strongly discourage gantries placed over roadways, and will only consider these where there is no suitable alternative. You will need to consider the impact a roadway gantry would have on neighbouring properties and consult with affected stakeholders prior to submitting your application (see 6.5 Consultation for details). Your application must explain how you have considered privacy issues, loss of amenity (including sunlight), noise control techniques and potential spread of fire and what actions you have taken to address these.

18.3 Design requirements for all gantries

18.3.1 Deck

(a) A guardrail system must be provided along the deck perimeter, in accordance with AS 1657. The handrail must be a minimum 1000 mm high above the deck surface, with an intermediate rail and toeboard also fitted. See Figure 18.1 (p.127) and Figure 18.2 (p.128).

(b) The deck must be designed and assembled to prevent water nuisance or slip hazards in public space (such as leaks through to pedestrians and cyclists underneath, or water ponding). Water leaving the deck should be dispersed evenly and not be concentrated in any one place in public space. If this cannot be achieved, water must be collected from the deck and discharged appropriately.

(c) The deck must not be used as a working platform for personnel to utilise. However, it can provide a platform for a perimeter scaffold and hoisting equipment (such as personnel or material hoists) so that site workers can safely access and egress the equipment as needed.

(d) We strongly discourage the placement of site sheds on the deck (see 18.3.2 Site sheds for more information).

(e) We strongly discourage storing materials or equipment on the deck to minimise loads placed on decks, visual bulk, the lifting of materials from the deck and the risk of falling items. Gantries are primarily intended to provide protection to the public; not to provide a platform for storage.

We will only consider allowing storage on the deck if the required item(s) cannot be accommodated elsewhere within the site boundary, and you must demonstrate to us that you have exhausted all other options to find a suitable location for them.

If absolutely necessary, and we approve the storage of materials or equipment on the deck:

(i) an additional fee will be incurred

(ii) the items must be positioned in a way that ensures the gantry remains structurally sound at all times

(iii) the area immediately behind and adjacent to any vertical skidboards must be left clear to facilitate safe lifting operations

(iv) see 12.6 Fire safety for advice on storing flammable liquids.

(f) Gantry drawings must clearly show the nature and location of anything you intend to mount or store on the deck. A structural engineer must certify that the gantry will be able to support all imposed loads and actions (see 18.4 below).

18.3.2 Site sheds

(a) All site sheds should be located within the site or within nearby private land or property by private arrangement.

We strongly discourage the placement of site sheds on the deck to minimise loads placed on decks, visual bulk, impact to neighbouring properties and the number of people accessing the deck. Gantries are primarily intended to provide protection to the public; not to provide a platform for accommodation. Only as a last resort will we consider site sheds placed on the deck, and you must demonstrate to us that you have exhausted all other options to find a suitable location for them.

If absolutely necessary, and we approve the storage of site sheds on the deck:

(i) an additional fee will be incurred

(ii) you must show the proposed location of site sheds on your plans

(iii) you must demonstrate consideration for adjoining property occupiers and ensure that the placement of site sheds is not detrimental to nearby properties. In particular:

- you must ensure that the privacy, security and natural light of nearby buildings is not impacted
- site shed occupants must not be able to see into the first floor (and above) windows of adjoining and nearby buildings
- noise, music or odours must not emanate from site sheds
- if placed within close proximity to adjoining properties, sheds may require a sprinkler system and smoke detectors installed in the case of fire when the sheds are not occupied. Worksafe Victoria can provide further guidance on required workplace amenities.

(iv) as soon as amenities can be moved to within the site, site sheds must be removed from the deck.

(b) We are unlikely to approve site sheds placed on the deck over a roadway or in a laneway (particularly where they would be close to adjoining buildings), or close to hoisting operations.

18.3.3 Columns and bearing pressure

(a) All fasteners on the columns and frame structure must not present a catch hazard or other risk to pedestrians and cyclists.

(b) All columns must be setback a minimum of 1000 mm from the edge of any vehicle crossing, driveway, garage entrance, intersection, bus stop, fire hydrant, service cabinet, service pit, telephone booth, information hub, paving light, security bollard (permanent, removable and foldable) and wayfinding sign.

- For advice about removing or relocating road-related infrastructure or street furniture where necessary, see 10.4.5.

(c) All columns must be setback a minimum of 300 mm from tactile ground surface indicators (TGSIs), in accordance with AS/NZS 1428.4.1.

(d) Columns must not be positioned over surfaces that may collapse or destabilise the gantry structure in any way.

(e) Counterweights may be required along each gantry column for lateral stability.

(f) Vehicle swept paths must provide 600 mm clearance to all gantry columns and be reflected in your site plans.

(g) Nominal bearing pressures:

(i) A structural engineer must be engaged to verify the column loads are sufficiently distributed and will not compromise the supporting surface, which could result in instability or damage to the gantry structure, underground services or nearby trees. See Table 18.1 below.

Table 18.1 - Indicative subgrade bearing capacities*

	SUBGRADE SOIL				
Su (kPa)	25–30	35–50	50–75	75–100	> 100
In situ CBR	3% (Soft)	3 < 6% (Firm)	6 < 10% (Stiff)	10 < 15% (Stiff)	> 15% (Very Stiff)
DCP values	1–2	2–3	4–5	6–7	> 8
Maximum permissible bearing capacity (kPa)	**75**	**100**	**140**	**210**	**275**

* The above table provides indicative values only and a structural engineer's report must be obtained in accordance with 18.3.3(g)

(ii) Light and heavy duty gantries:

Under dead load and 40% live loads, the nominal bearing pressure on the footpath must not exceed 140 kPa where the supporting surface is sealed and stiff, or 100 kPa where the supporting surface is unsealed and firm. There must be no known history of ground failure or indications of settlement, cracking or other signs of a soft subgrade beneath the surface. If the bearing pressure will exceed this, you must submit a report from a structural engineer with your permit application to confirm that the footpath is capable of supporting the structure without causing damage.

(iii) Special duty gantries:

The dead load and the maximum non-impact loads must not exceed the nominal bearing pressure of 140 kPa where the supporting surface is sealed and stiff, or 100 kPa where the supporting surface is unsealed and firm. There must be no known history of ground failure or indications of settlement, cracking or other signs of a soft subgrade beneath the surface. If the bearing pressure will exceed this, you must submit a report from a structural engineer with your permit application to confirm that the footpath is capable of supporting the structure without causing damage.

(iv) The effect of column loading on underground services, the stability of earth slopes or of basements of adjoining excavations must also be considered.

(v) Gantry foundations must be monitored by a structural engineer for settlement:

- every six months if the gantry is mounted on a hard surface
- every three months if the gantry is mounted on a surface that is unsealed or in poor condition.

If the bearing pressure leads to the settlement of foundations or ground surfaces, appropriate safety controls must be implemented immediately. You must also:

- report any evidence of subsidence to us as soon as practicable, together with any rectification works required to ensure the ongoing stability of the gantry
- repair any damage to municipal assets to our satisfaction
- provide the three- or six-monthly survey results to us upon our request.

18.3.4 Soleplates

(a) Soleplates (for example, a timber block) placed underneath gantry columns must be designed on a site-by-site basis taking into account the bearing capacities in 18.3.3(g) and Table 18.1 (p.124). You must submit details of all soleplates with your permit application. Soleplates must also:

- minimise trip hazards
- be positioned parallel to the direction of pedestrian flow.

(b) Where more than one soleplate is used under a column to address differences in surface levels, each one must be mechanically fastened in place.

(c) Our preference is for soleplates to be placed on the footpath without fixings so you don't damage the surface.

(d) Where required, you may affix the soleplate to the footpath. See 17.4.5 Counterweights and fixing a structure to the footpath for our requirements.

(e) Where soleplates protrude from the column profile and sit more than 5 mm higher than the pavement surface, this can create a tripping hazard for pedestrians. Where this is the case, each soleplate and attached column must be individually boxed in with plywood to a height of 1000 mm. The box must have a slimline profile, be finished in a way that won't cause injury to pedestrians (for example, tapered in at the top with no sharp edges) and be enclosed at the top to ensure litter does not accumulate inside it. See 18.3.15 for colour and visibility requirements. See Figure 18.1 (p.127), Figure 18.2 (p.128) and Figure 18.3 (p.134) for application.

18.3.5 Bracing, supports and overhead clearances

(a) For gantries over the footpath, an unobstructed clear height of 2700 mm is required from the footpath surface to the underside of the gantry deck (including the supporting beams and structure underneath the deck), for the length of the gantry. See Figure 18.1 (p.127).

(i) Where knee bracing will be used, a minimum unobstructed clear height of 2100 mm is required from the footpath surface to the bottom of the knee brace.

(ii) It may be necessary to raise this height where concrete feed lines run into the site underneath the gantry (see 15.7.3 Concrete feed lines), where there is a vehicle crossing into the site or where bicycle lanes are directed underneath a gantry.

(b) For gantries over the roadway, an unobstructed clear height of 5 m is required from the roadway surface to the bottom of the gantry deck (including the supporting beams and structure underneath the deck), for the length of the gantry. See Figure 18.2 (p.128).

(i) Where knee bracing will be used, a minimum unobstructed clear height of 4.4 m is required from the roadway surface to the bottom of the knee brace, to allow 4.3 m high trucks to safely pass underneath. Trucks higher than this can only travel on permitted high access routes.

(c) We do not support cross-bracing between every column. Gantries must be designed to minimise cross-bracing on the kerb side as much as practicable, to avoid creating a tunnel effect. This maintains the openness of the footpath and ensures pedestrians can easily exit the gantry walkway if needed (for example, in the event of a fire or a threat to their personal safety).

(i) If bracing is required, consider placing it behind skidboards or on the worksite side (where it can be hidden behind a hoarding).

(ii) If bracing is absolutely necessary on the kerb side it may be applied to a maximum of every second bay between columns. Where bracing is applied, the structure must be designed to prevent:

- the bracing being climbed
- pedestrians moving through areas of low headroom and/or trip hazard.

(d) We strongly discourage the use of back propping to provide additional structural support to a gantry (for example, with adjustable vertical props). Props are often placed in or adjacent to the pedestrian path, creating a trip hazard for pedestrians. Gantries must be designed for all foreseeable loads prior to installation. We will only consider the use of back propping during trench excavation for services by utilities and in unforeseen circumstances that may arise during the course of works. You must obtain our permission prior to installing temporary propping.

(i) If we approve your proposed use of temporary propping, props must be placed in line with existing columns, be boxed in with plywood as per 18.3.4(e) and meet the colour and visibility requirements detailed in 18.3.15 below.

18.3.6 Setback from the kerb

(a) For gantries over the footpath, the distance between the face of the kerb and nearest gantry column must be a minimum 550 mm where public parallel parking is permitted, to allow for passengers to enter and exit parked vehicles. This distance may be reduced to 300 mm where public parking is not permitted at any time (for example, if an all-hours Construction Permit Zone applies for the full duration the gantry is in place). A setback also ensures that a camber in the road does not cause a tall vehicle to strike any part of the gantry. See Figure 18.1 (p.127).

(i) Where pedestrians are not permitted between the gantry columns and kerb (for example, if the path is too narrow for pedestrians), see 15.8.1 Traffic control devices for how to appropriately block a footpath with barriers and signage.

(b) For gantries over the roadway, the distance between the face of the kerb and the nearest gantry column must be a minimum 550 mm (on each side of the road). This is to ensure that a camber in the road does not cause a tall vehicle to strike any part of the gantry. See Figure 18.2 (p.127).

(c) Additional setback from the roadway or vehicle protection barriers will be required when gantry columns are within the clearance zone of an adjacent traffic lane (see 18.3.12(a)(ii) below for details).

(d) Nothing can protrude from the gantry within 300 mm from the face of the kerb, at a height less than 5 m from the ground surface level. Skidboards may exist within this dimension only if an all-hours Construction Permit Zone applies for the full duration the gantry is in place. This is to ensure that a camber in the road does not cause a tall vehicle to strike any part of the gantry. See Figure 18.1 (p.127) and Figure 18.2 (p.128).

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Figure 18.1 - Typical gantry over footpath (and how to measure the clear footpath width)

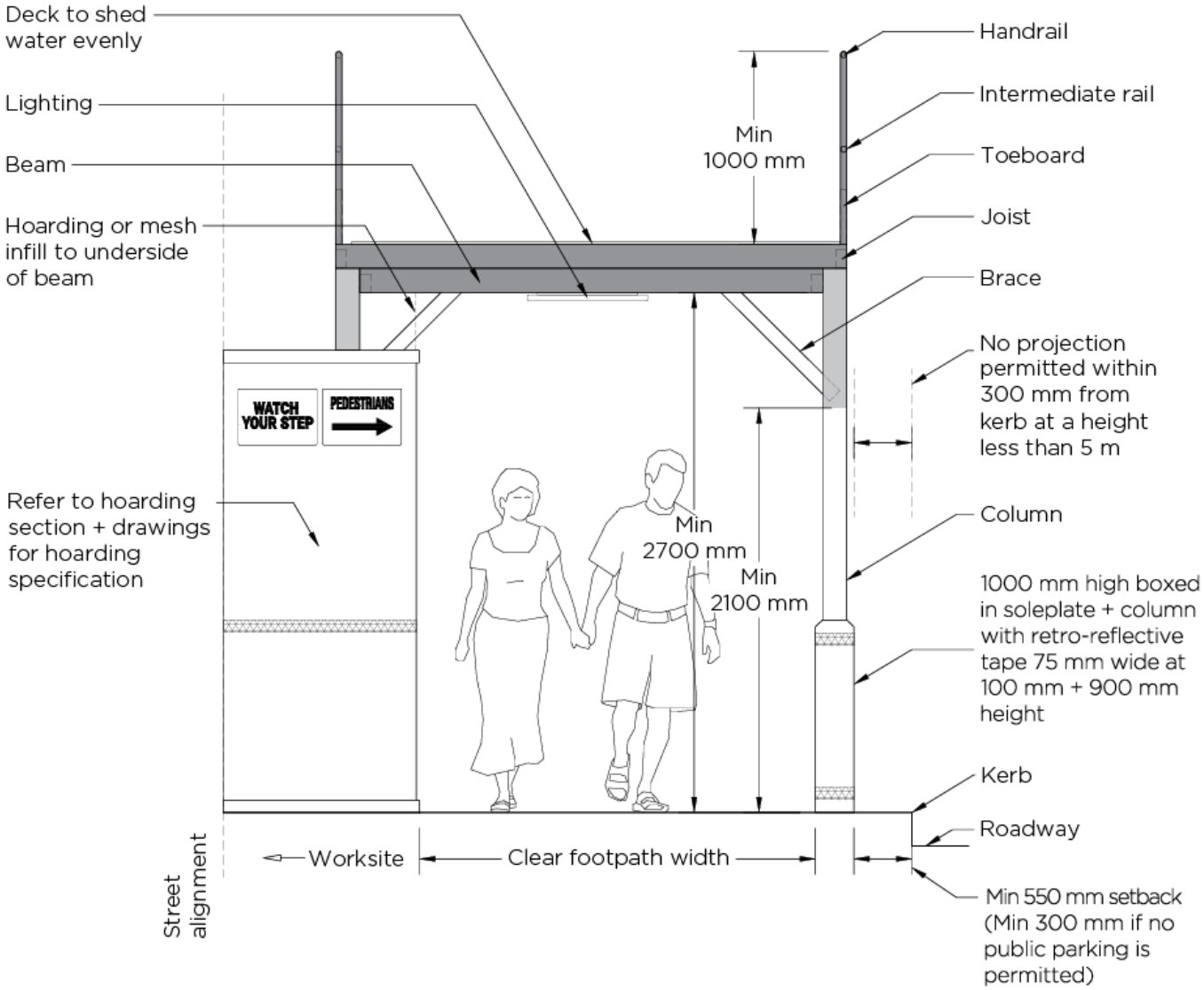

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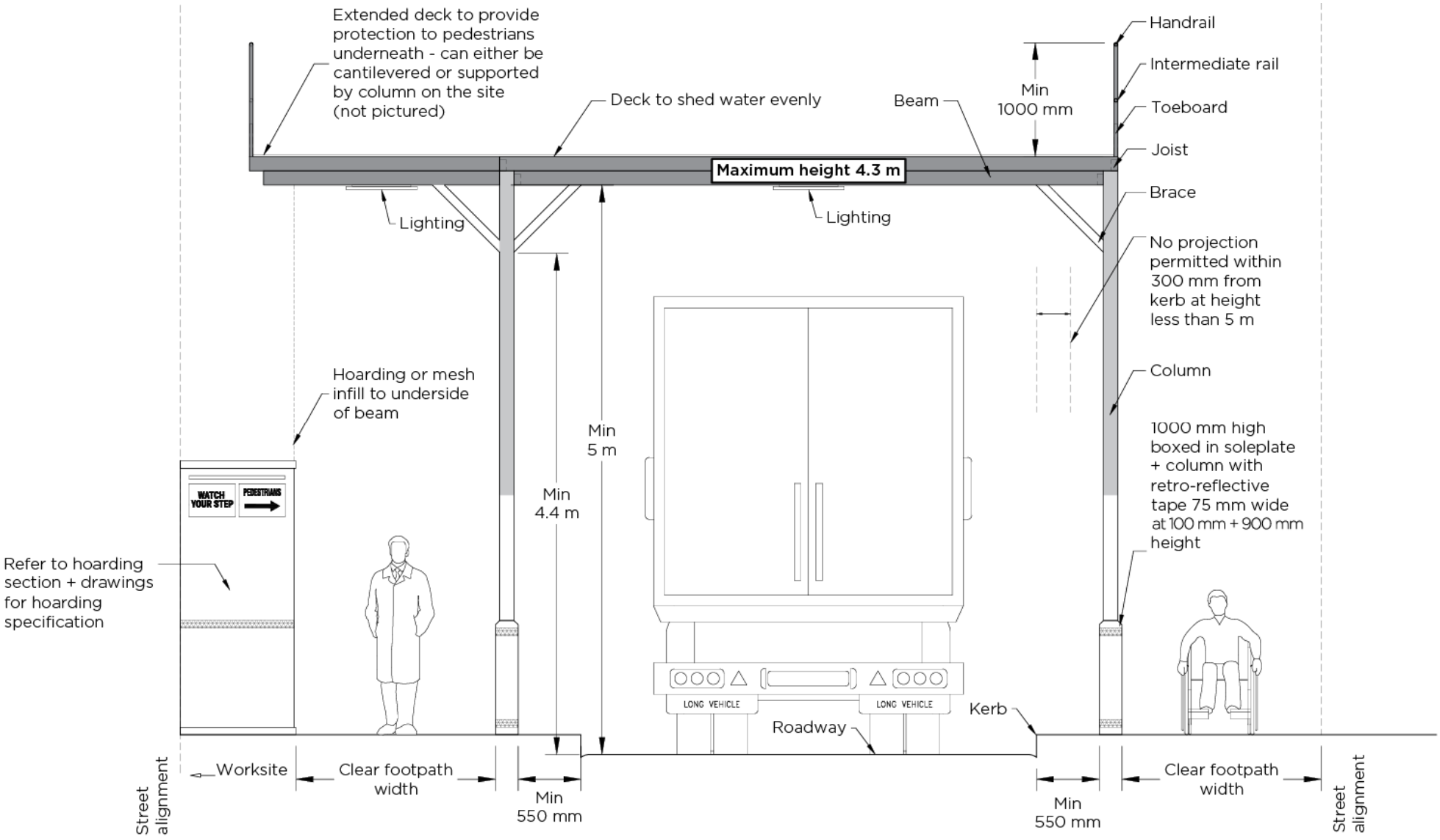
Figure 18.2 - Typical gantry over roadway or laneway



18.3.7 Consideration for adjoining properties

(a) The gantry must extend a minimum of 2000 mm beyond the worksite at each end, to protect the area immediately adjoining the site from falling objects. You will need to work with adjoining property owners to ensure access to any building entrances, shop fronts, access ramps, emergency exits or the like are maintained, and reach agreement about any other site-specific issues (such as awnings, kerbside dining and overhead advertising signs). Where possible, this gantry extension could be cantilevered to reduce the impact on adjoining properties. See Figure 18.4 (p.135).

(b) If a gantry is located within 3 m of an adjoining building, the floor level(s) of the gantry must comply with the following:

(i) White barriers or screens are required on the adjoining building side to protect the privacy and light of occupants. These must be erected a minimum of 1500 mm from the adjoining property and a minimum 2100 mm above the gantry deck floor level. Any gaps between the barriers must not exceed 125 mm.

(ii) The area within the 1500 mm in (i) above is not to be used for any purpose other than to provide privacy and light to the adjoining building. For example, no floor must be laid within 1500 mm of an adjoining building.

(iii) Where it is deemed necessary by the relevant building surveyor to provide protection to the adjoining building (for example, in narrow laneways), wire mesh catch platforms with a maximum 50 mm aperture must be erected on the barrier or screen.

18.3.8 Traffic management around gantries on footpaths

(a) Gantries should be designed to allow the safe movement of pedestrians underneath the structure, ideally without needing to redirect pedestrians around the site. Passing underneath a gantry (instead of around it) provides the most protection for pedestrians. If your gantry (including any attachments or associated infrastructure, such as vehicle impact protection measures) will require any part of the footpath or roadway to be closed for any length of time, see 15 Traffic management for our requirements.

(b) The minimum clear path width outlined in 15.7.1 must be maintained underneath the full length of the gantry at all times. This is measured across the footpath between gantry columns, or anything in front of or attached to the columns (for example, between the hoarding plinth on the site side and the plywood box around the column/soleplate on the kerb side).

(c) If you propose to make changes to the existing roadway alignment to accommodate the gantry, this must be reflected in your CTIA (see 15.10.1 for details).

(d) In addition to all requirements outlined in 15 Traffic management, other traffic management considerations related to gantries are as follows:

(i) The gantry and all attachments (such as bracing and light fittings) must be designed and constructed to allow lines of sight to be maintained:

- for drivers and cyclists to view traffic control signals and view pedestrian movements at pedestrian crossing points
- for pedestrians to see oncoming traffic and have a clear view of pedestrian signals.

(ii) Any non-transparent sections of gantries (such as skidboards) must be set back by a minimum 2500 mm from any pedestrian crossing, vehicle crossing, garage entrance or intersection, so it does not obstruct the lines of sight between pedestrians and drivers.

(iii) Any gantry proposed to be located within 50 m of the following will require more detailed consideration by us:

- any intersection (signalised or non-signalised)
- any pedestrian crossing (such as a zebra crossing, school crossing or signalised pedestrian crossing)

(iv) If road-related infrastructure (such as street lights, parking signs and parking bays) or street furniture (such as bench seats, bins and bicycle hoops) will need to be removed or relocated to accommodate the gantry, see 10.4.5 for instructions and Table 10.1 (p.40) for an indication of potentially affected items.

18.3.9 Gantries on corner sites

(a) Corner gantries must be designed to be as open as possible at street level in both directions, so that pedestrians can be seen when they are within 2500 mm of an intersection or crossing.

(b) Columns must be set back from the intersection and any kerb ramps, so there is ample space for pedestrians to safely queue while waiting to cross the road.

(c) Decks must be splayed at the corner to allow lines of sight and visual openness to be maintained at intersections for all road users.

18.3.10 Signage and attachments to the gantry

(a) All warning signage on and around the gantry must be erected in accordance with AS 1742.3 and Department of Transport's Code of Practice for Worksite Safety – Traffic Management, as stipulated in the Road Management Act 2004.

(i) This includes the following signs to be placed at a height of 2200 mm:

- "Watch your step" signs installed at both ends of the gantry to alert oncoming pedestrians of the columns adjacent to the pedestrian path.
- If pedestrians need to be directed under a gantry that is offset from the main pedestrian path (for example, if the gantry is set back considerably from the street alignment), a "Pedestrians → [arrow]" sign must be installed at both ends of the gantry.

(b) For gantries over the roadway, height limit signage stating "maximum height 4.3 metres" must be fixed to the overhead gantry entrance.

(c) Any barbed wire, razor wire, chicken wire or the like affixed to any part of a gantry must begin no less than 2400 mm above the adjacent surface pavement.

(d) For advertising signage requirements, see 16.7 Signage.

18.3.11 Gantries at demolition sites

(a) In accordance with AS 2601, where a footpath is located immediately adjacent to a demolition site and the demolition is occurring close to the street alignment, the footpath must be covered by a gantry and the building façade (if remaining) protected by heavy duty scaffolding. See AS 2601 for specific requirements for this overhead protection and see 21 Demolition for our other demolition requirements.

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18.3.12 Vehicle impact protection

(a) Gantries must be suitably protected from the risk of vehicle impact or be designed to remain safe and stable in the event of a vehicle impact.

Proposed measures must be shown in your CTIA.

At a minimum, each gantry must:

(i) have an impact absorbing barrier installed on all foreseeable approach angles to the structure that is suitable for the design speed limit of the adjacent road, to mitigate the risk of vehicle impact to the columns. If you intend to affix a barrier to the ground surface, see 10 Asset protection and reinstatement for our requirements.

(ii) have a clearance zone of 3 m on roads with a 60 km/h speed limit, and a suitable clearance zone in locations with lower speeds, as outlined in the Department of Transport's Code of Practice for Worksite Safety – Traffic Management 2010. If this is not possible and gantry columns will be located within the clearance zone of an adjacent traffic lane, they must be further setback from the roadway to allow room for suitable barrier protection.

(iii) be designed for impact and remain stable under 40% of the deck live load and full dead load when a column is removed.

- This can be carried out by testing or by calculation. If by calculation, then the longitudinal beams and crossbeams are to be continuous over the "removed" column. This can be proved by suitable end moment connections or knee bracing. The connection strength of the beams is to be 10% greater than the weakest member. It may be possible to introduce additional columns that could support the deck when a column is removed.

(b) For gantries over footpaths, you should avoid creating a tunnel effect with protection measures as much as practicable, so that pedestrians can easily exit the gantry walkway if needed (for example, in the event of a fire or a threat to their personal safety).

18.3.13 Hoisting zones

(a) Hoisting zone requirement and configuration

(i) If loads are proposed to be lifted into or out of a site, a hoisting zone is required. A hoisting zone is the only location where lifting activity should occur in the public space around a building site – typically involving a mobile crane or internal tower crane lifting loads into or out of a site. This is because a hoisting zone affords overhead and sideways protection to the public, in the event the hoisted load was to fall or swing in an unintended direction.

(ii) A gantry and hoisting zone must be installed before any loads can be lifted above the road or footpath.

(iii) If your gantry design includes a hoisting zone, a Construction Permit Zone must be located alongside the gantry for the length of the worksite, to prohibit public parking and instead allow construction or material delivery vehicles to safely occupy this space. See 15.7.6(b) Construction Permit Zones for our requirements. See Figure 18.4 (p.135).

(b) Vertical skidboards

(i) Skidboards must be securely fixed to the skidboard frame for the length of the hoisting zone. The frame must be securely bracketed to the gantry structure, to prevent the hoisted load from impacting the gantry structure directly.

(ii) Skidboards must be designed for the required wind loads and the 5 kN point load as specified in 18.4.5(c) below.

(iii) Timber skidboards must be approximately 245 mm wide and 45 mm thick, and must be spaced no more than 50 mm apart. Modular skidboard panels are to be installed in accordance with the structural engineer's design.

(iv) The top of the skidboards should extend a minimum 1000 mm above the gantry deck to sit in line with (or higher than) the handrail, to ensure the load being lifted does not clip the guardrail system. See Figure 18.3 (p.134).

(c) Worksite safety barrier screen

(i) A worksite safety barrier screen must be installed between the hoisting zone and the adjacent lane of traffic, to provide an aesthetically pleasing physical barrier between the hoisting zone and roadway, protect those working within the hoisting zone and afford extra protection to passing vehicles during hoisting operations. See Figure 18.4 (p.135).

(ii) You should follow the recommendations in VicRoads Road Design Note RDN 06-12 A – Worksite Safety Barrier Screens when designing and installing the screen, except for the following:

- The screen must be constructed of steel and be transparent in nature (for example, woven steel mesh). Solid steel or timber panels will not be permitted in the municipality.
- A contrasting strip of 100 mm wide retroreflective adhesive tape must be affixed around the top of any barriers used (comprised of 50 mm yellow tape and 50 mm red tape, with a small gap in between) to maximise visibility in low light conditions.
- 'Keep right' signage must be displayed at the start of the screen and not protrude into the traffic lane (or 'keep left' for one-way roads with a hoisting zone on the right side of the road). This is the only signage permitted on the screen.
- No shade cloth is permitted on the screen.

(iii) The screen must be designed to a structural engineer's requirements.

(iv) You must have our consent for works (road works) before you make any modifications to the road surface (for example, adding footings for the screen and/or any barriers). See 10.4.4 Consent for works (road works) for details.

(v) Before vacating the Construction Permit Zone on the completion of works, the surface must be reinstated to our satisfaction (see 10.6 After your project for more information).

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(d) Hinge gates

(i) Hinge gates must be installed at both ends of the hoisting zone and be securely fixed to the gantry structure. They must be placed at least 1400 mm above the road surface and extend for the width of the hoisting zone. See Figure 18.3 (p.134).

(ii) Each gate must have a 12V flashing amber warning light mounted on it, and a contrasting strip of retroreflective adhesive tape 75 mm wide affixed to the end of the gate closest to the adjacent lane of traffic to maximise visibility in low light conditions. See Figure 18.3 (p.134).

(iii) Signage stating “Crane Working Overhead” must be affixed to each gate. See Figure 18.3 (p.134).

(iv) At all times while hoisting is in progress, both gates must have their lights on and be positioned at right angles to the kerb to ensure pedestrians cannot walk through the operational hoisting zone occurring on the roadway. See Figure 18.4 (p.135).

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Figure 18.3 - Typical hoisting zone elevation (worksite safety barriers not shown)

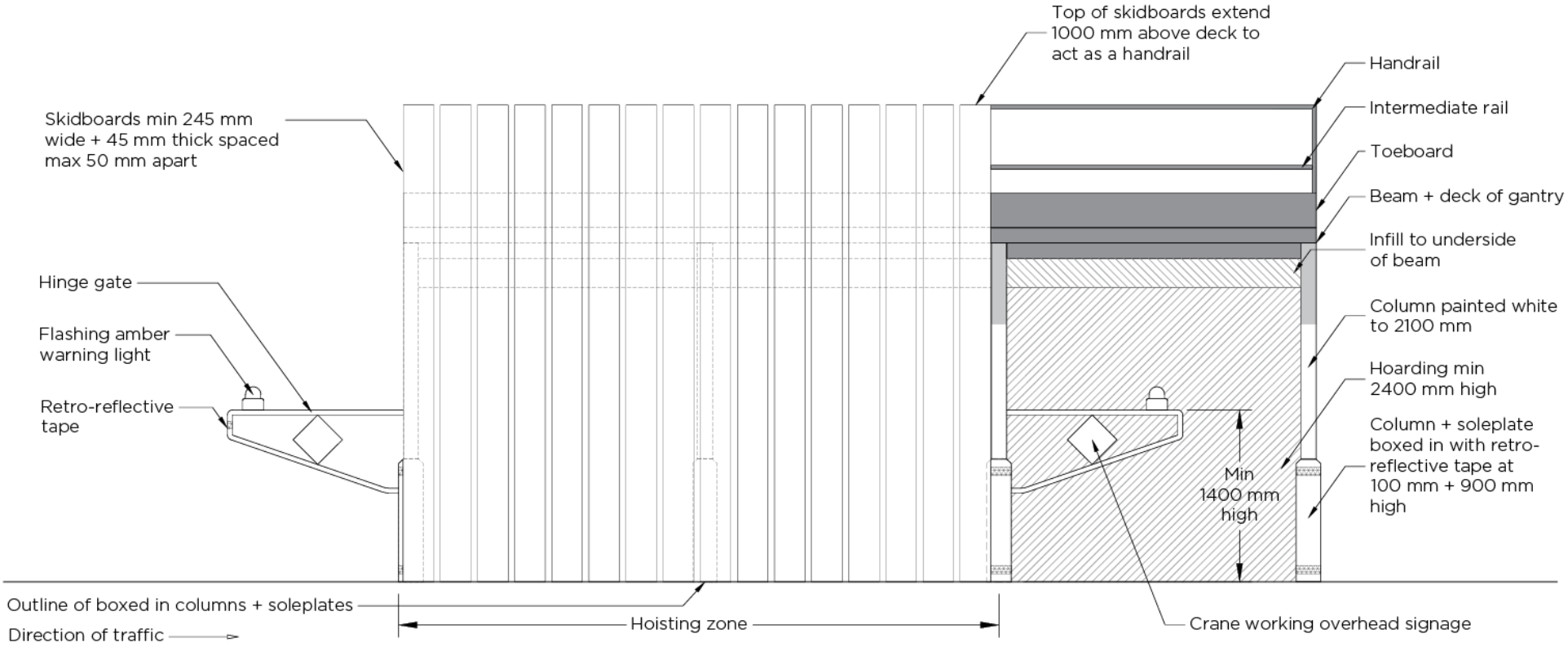

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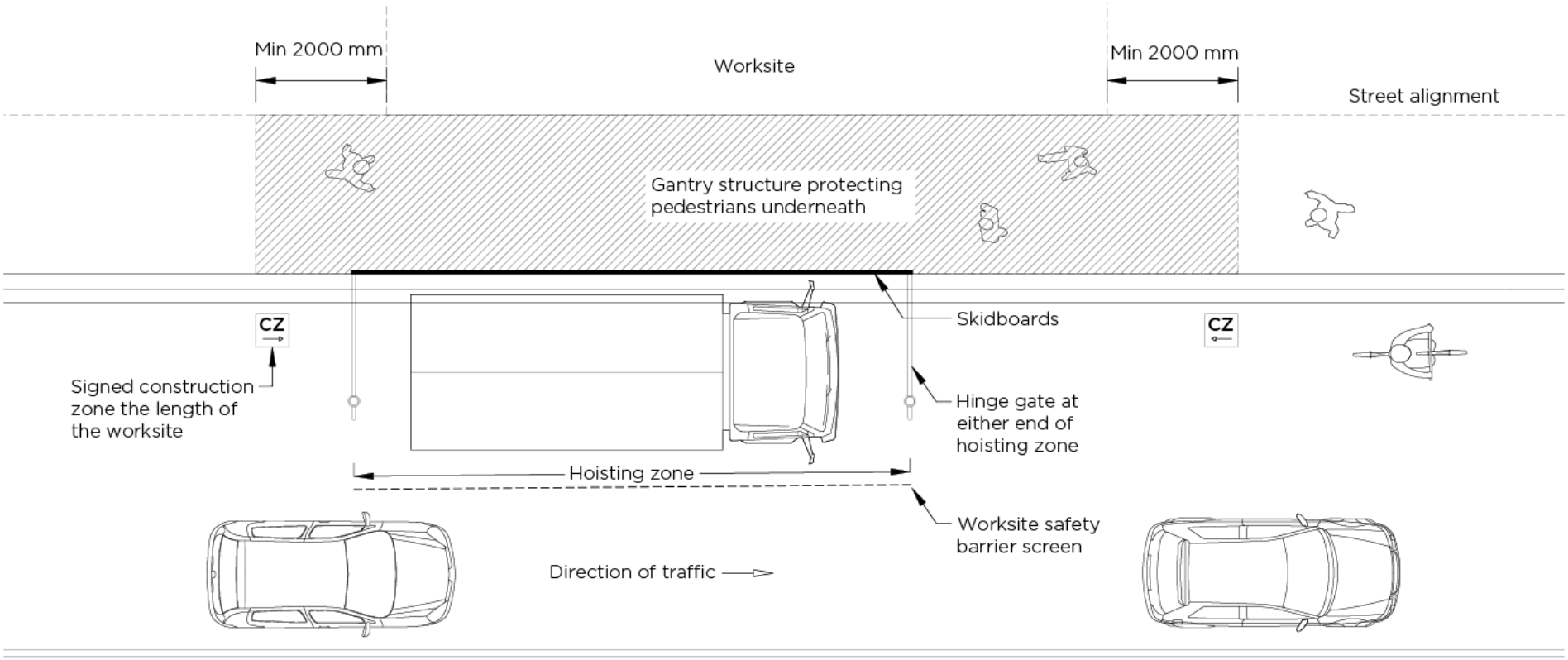
Figure 18.4 - Typical plan of special duty gantry with hoisting zone



(e) Hoisting operations

(i) All hoisting of loads must be conducted vertically from the hoisting zone, raised to the requisite height and swung directly on the building site without delay. Loads must not be swung out over any unprotected footpath, road or adjoining property without formal written agreement with affected property owners or responsible authorities (see 20.2.2 for more information).

(ii) Building materials must be hoisted in a container of sound and sturdy construction and loose materials must not extend above the sides of the container. Taglines should be used to guide suspended loads as necessary.

(iii) Hoisting zones are exclusion zones for the public. At no time should loads be lifted or suspended over people without overhead protection provided.

(iv) Risk controls must be put in place regarding objects potentially falling from height. If the gantry will not be capable of resisting the impact force of the load being hoisted above (for example, pre-cast concrete panels), you must take extra steps to ensure pedestrians cannot walk underneath the gantry for the lift duration (and vehicles, if the gantry is over a roadway). This could involve intermittently closing the footpath area below or redirecting pedestrians while heavy lifting operations are underway, until the falling object risk is no longer present.

(v) In the event that we approve your storage of site sheds on the gantry deck (if a more suitable location cannot be found – see 18.3.2 Site sheds) and a crane will be working above, site sheds must be protected overhead with another 10 kPa gantry deck. If this deck is not capable of resisting the impact of the load being hoisted above it, extra steps should be taken to ensure the safety of site shed occupants (such as vacating site sheds when lifting operations are underway). Worksafe Victoria can provide additional guidance on this.

(vi) Heavy vehicles should enter and exit the hoisting zone in a forward direction. Any reversing movements in the road should be avoided (see 15.7.7 Managing heavy vehicles for more information).

18.3.14 Lighting

(a) In addition to all requirements set out in 16.6 Lighting, the following requirements apply to all gantries:

(i) Lighting underneath a gantry must be designed to comply with AS/NZS 1158.3.1 (Lighting for roads and public spaces – Pedestrian area (category P) lighting – Performance and design requirements), table 2.4 Lighting subcategories for connecting elements.

(ii) The lighting underneath a gantry must operate at all times if:

- the footpath and/or bicycle path receives low level of natural lighting during the daytime as a result of the structure
- the gantry or scaffold covers the footpath and/or bicycle path from all sides and creates a tunnel effect, which reduces the amount of natural light.

(iii) Where a gantry is positioned over a bicycle path, luminaires must be mounted on the underside of the gantry deck along the centreline of the path.

(iv) Where a gantry is installed above a street awning that has little or no lighting, the lighting system must provide additional lighting to ensure the footpath is adequately lit for pedestrians.

18.3.15 Colours and visibility requirements

(a) The overall gantry structure (steel frame structure, beams, etc.) should be painted in a uniform dark colour – preferably Teahouse Grey PG1.F6.

(b) Gantry columns and soleplates must be painted white, to a minimum height of 2100 mm above the ground surface level.

(i) A contrasting strip of red retroreflective adhesive tape 75 mm wide must be affixed around all gantry columns and other vertical structural elements at 100 mm and 900 mm above the ground surface level, to maximise visibility in low light conditions.

(ii) Where soleplates are boxed in (see 18.3.4(b) above), the plywood box must also be painted white with tape affixed as per (i) above. See Figure 18.1 (p.127).

(c) The underside of the gantry deck, knee bracing and any cross bracing on the kerb side must be painted white.

(d) Vertical skidboards should be painted in a uniform dark colour – preferably black.

(e) Any site sheds placed on the gantry deck should be painted in a uniform dark colour – preferably Teahouse Grey PG1.F6.

(f) Any approved temporary props (and surrounding plywood box) must receive the same colour and tape treatment as outlined in (b) above.

(g) No advertising is permitted on columns, soleplates, retroreflective tape, plywood boxes or temporary props to ensure the necessary colour contrast is retained for all pedestrians.

(h) For hoarding colour, see 17.4.3.

18.3.16 Public tree protection

In addition to all requirements outlined in 11 Public trees and green infrastructure, the following requirements also apply to gantries:

(a) If your gantry will be placed within a Tree Protection Zone, you must supply a Tree Protection Plan (see 11.2.2 Tree Protection Zones and 11.2.3 Tree Protection Plans) with your permit application that meets all requirements outlined in 18 Precaution – Gantries and shows the proposed gantry in relation to the nearby public tree(s).

(b) The gantry (including site sheds and hoisting zones) must be designed to minimise impacts on public trees and avoid the need for pruning. This may require designing a custom structure for the site, instead of using a prefabricated product. No part of the gantry may be located within a tree plot or be in contact with any part of a tree. If there is the potential for any part of a gantry to come into contact with a public tree, suitable protection must be in place or the gantry design modified to ensure the tree's health and growth is not impacted.

18.4 Structural design requirements

18.4.1 Gantries must be designed for dead loads, live loads and wind loads in accordance with the relevant Australian Standards unless otherwise specified in this Code.

18.4.2 Dead loads

(a) Dead loads (including anything being stored or mounted on the gantry deck) must be incorporated into the gantry design.

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18.4.3 Deck live loads

(a) Light duty gantries must be designed for live loads of 5 kPa.

(b) Heavy duty gantries must be designed for live loads of 10 kPa.

(i) If using a timber deck, a layer of SL62 welded steel mesh or equivalent should be placed between the flooring and deck joists to provide resistance from impact loads (for example, a falling brick or hammer). The mesh can be omitted if the decking can be shown by calculation or testing to have an equivalent impact and punching resistance. A mesh layer is not required for steel decks.

(c) Special duty gantries must be designed for live loads of 10 kPa, in addition to the loads imparted to the structure by a combination of:

- structures or storage proposed on the deck
- horizontal impact loads at hoisting zones.

18.4.4 Wind loads

(a) Wind loads shall be determined by a structural engineer in accordance with AS/NZS 1170.2. Wind load calculations must consider skidboards and any items being stored or mounted on the gantry deck.

18.4.5 Stability and lateral loads

(a) Gantries must be designed for the effects of lateral loads and any other loads causing overturning. Loading combinations and stability factors must be in accordance with AS/NZS 1170.0.

(b) In areas other than hoisting zones, lateral loads must include wind loads and a horizontal load of at least 5% of the vertical dead loads applied at the deck level. This is in addition to any vertical loads causing overturning.

(c) In hoisting zones, lateral loads must be the greater of the non-crane area provision above or a point load of 5 kN applied to a column at the deck level in hoisting zones.

(d) A gantry must be designed as freestanding, unless it can be shown to have adequate support from adjacent permanent structures that will remain for the duration of the gantry. No temporary façade can be used as a supporting structure – both structures must be independent unless designed as a dual-purpose structure.

19. Precaution – Scaffolds and catch platforms

Scaffolds and catch platforms are temporary protective structures that can provide overhead protection to pedestrians and other road users from small falling objects where construction or maintenance activities are occurring close to or over the street alignment in a public space.

Scaffolds are most often used to:

- enclose demolition sites or multistorey construction
- provide access to upper storeys as they are built
- carry out building maintenance, rectification or restoration work on an existing building façade (such as painting, cleaning, light weight cladding replacement, window washing and awning repair).

There are many considerations when siting and designing a scaffold – such as various loading factors, providing safe passage for pedestrians either underneath or around the structure, protection from errant vehicles, protection of nearby trees and the impact on surrounding properties.

This section outlines our requirements for perimeter scaffolds, suspended scaffolds and catch platforms. It applies to all proprietary, purpose- and custom-built scaffolds. It does not cover building maintenance units (BMUs) or tower/mobile scaffolds.

19.1 Objectives

In addition to our objectives for all primary precautions (see 16 All primary precautions), all scaffolds should:

- be used in conjunction with a hoarding to cover all structural elements on the site side and restrict access onto a worksite (where a scaffold is mounted on the footpath)
- be appropriately designed for the site, for the nature of works being undertaken and for all imposed loads
- be suitably protected from the risk of vehicle impact or be designed to remain safe and stable in the event of a vehicle impact
- consider adjoining properties in their placement and operation.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

All scaffolds must meet the requirements outlined in 16 All primary precautions, in addition to the ones listed below.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

19.2 General considerations

19.2.1 You must have a permit before erecting a scaffold in public space (even if a scaffold was provisionally approved as part of your Report and Consent, CMP or CTIA).

19.2.2 Scaffolds and catch platforms must comply with AS/NZS 1576, AS/NZS 1577 and AS/NZS 4576. Additional guidance can be obtained from Worksafe Victoria and Safe Work Australia.

19.2.3 Scaffolds and catch platforms must be designed and certified by a structural engineer, with all elements shown in a dimensioned site plan.

19.2.4 Type of scaffolds permitted in the municipality:

(a) Perimeter scaffolds

This type of scaffold is placed around the perimeter or façade of a building to provide a safe temporary working platform and provide overhead and side protection around a building. It is generally used in demolition and multistorey construction.

In order of our preference, perimeter scaffolds can be mounted:

(i) on the deck of a special duty gantry, allowing pedestrians to pass underneath the gantry with adequate overhead protection. See 18.3 Design requirements for all gantries for more information

(ii) on the footpath, with pedestrians passing underneath it (sometimes referred to as a ‘scaffold coverway’ or ‘scaffold gantry’) without needing to redirect pedestrians around the worksite

(iii) on the footpath, with pedestrians passing around it (if there is sufficient path width to accommodate both the scaffold and pedestrians).

(iv) See 19.3 and Figure 19.1 (p.141) for our design requirements for perimeter scaffolds.

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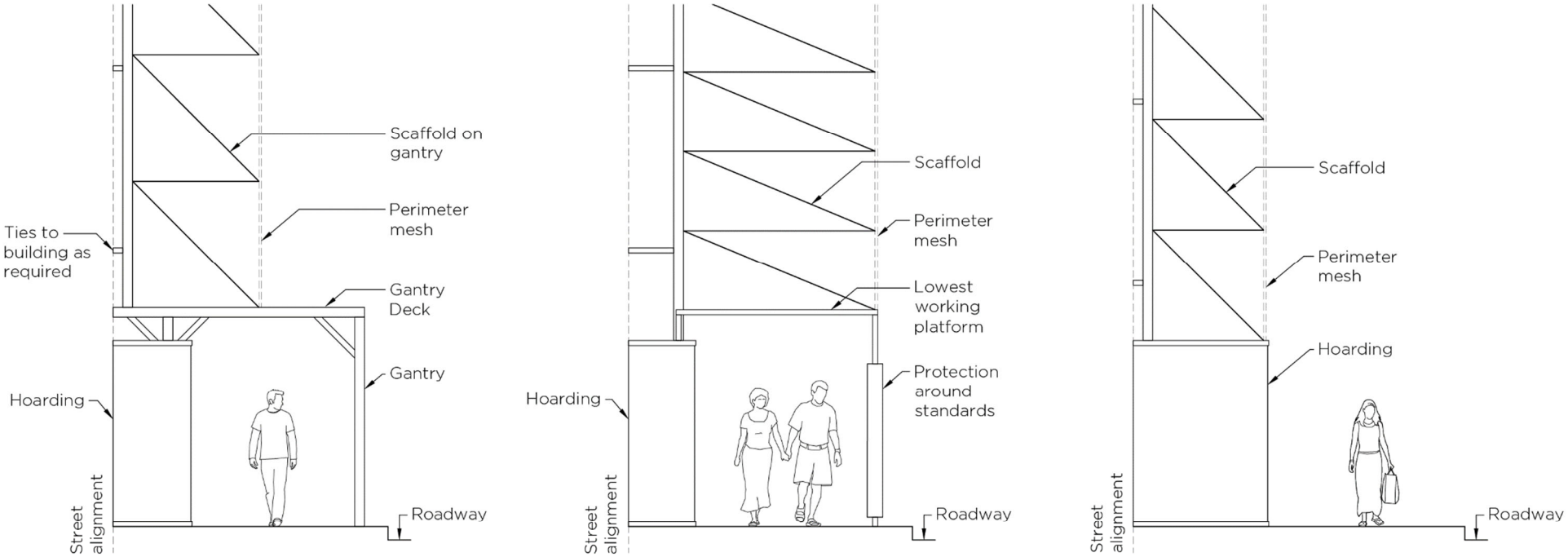
Figure 19.1 - Typical scaffold cross-sections



A. Mounted on deck of special duty gantry, with pedestrians passing underneath

B. Mounted on footpath, with pedestrians passing underneath

C. Mounted on footpath, with pedestrians passing around it

(b) Suspended scaffolds

This type of scaffold, sometimes also referred to as a 'swing stage', is comprised of one or more working platforms suspended by ropes or other forms over overhead support, or cantilevered. Suspended scaffolds are generally used in the maintenance or alteration of high rise buildings.

See 19.4 for our design requirements for suspended scaffolds.

19.2.5 If mounted directly on the footpath, scaffolds must be positioned as close as possible to the street alignment along all site frontages. You should design your scaffold to occupy the least amount of public space as possible in order to conduct the works, to minimise disruption.

19.3 Design requirements for perimeter scaffolds

19.3.1 When a hoarding is required in conjunction with a scaffold

If the scaffold is mounted on the footpath, a minimum 2400 mm high timber hoarding must be placed around it on the site side to:

(a) enclose all structural elements on the site side to minimise trip hazards for pedestrians

(b) protect the public from falling debris (for example, where façade works are occurring)

(c) prevent members of the public from climbing the scaffold and accessing the worksite.

See Figure 19.2 (p.145) and 17 Precaution – Hoardings for timber hoarding requirements.

19.3.2 Working platform

(a) Edge protection in the form of guardrails, midrails and toeboards must be fitted to all open sides and ends of a working platform, to minimise the risk of items or people falling onto the footpath or roadway below.

(b) If pedestrians can pass underneath the scaffold, the lowest working platform must be designed and assembled to prevent water nuisance or slip hazards in public space (such as leaks through to pedestrians or water ponding). Water leaving the platform should be dispersed evenly and not be concentrated in any one place in public space. If this cannot be achieved, water must be collected from the platform and discharged appropriately.

(c) Storage of materials or equipment on scaffolds is not permitted. Any objects on the scaffold are to be removed when the scaffold is not in use.

19.3.3 Scaffold ties

The scaffold must be attached to the existing building with scaffold ties at regular intervals in accordance with AS/NZS 1576.1 and the design prepared by a structural engineer, ensuring it is appropriate for both the scaffold and building façade. See Figure 19.2 (p.145).

19.3.4 Standards

The following apply where a scaffold is mounted directly on the footpath:

(a) Each standard on the kerb side must be enclosed to a height of 2100 mm with a split PVC tube adequately secured with duct tape to enclose all components and fittings (standards on the site side will be enclosed by a hoarding – see 17.6 and Figure 19.2 on page 145 for details).

See 19.3.19 Colour and visibility requirements for further requirements on the appearance of standards.

(b) Scaffold components must not have any sharp edges or protrude into the footpath or roadway where they could pose a risk to pedestrians and cyclists.

(c) All standards must be setback a minimum of 1000 mm from the edge of any vehicle crossing, driveway, garage entrance, intersection, bus stop, fire hydrant, service cabinets, service pits, telephone booth, information hub, paving light, security bollard (permanent, removable and foldable) and wayfinding sign.

(i) For advice about removing or relocating road-related infrastructure or street furniture, see 10.4.5.

(d) All standards must be setback a minimum of 300 mm from tactile ground surface indicators (TGSIs), in accordance with AS/NZS 1428.4.1.

(e) Standards must not be positioned over surfaces that may collapse or destabilise the scaffold in any way.

(f) Vehicle swept paths must provide 600 mm clearance to all standards and be reflected in your site plans.

(g) Counterweights may be required along standards for lateral stability.

(h) Nominal bearing pressures:

(i) A structural engineer must be engaged to verify the load from each standard is sufficiently distributed and will not compromise the supporting surface, which could result in instability or damage to the scaffold, underground services or nearby trees. See 10.5.1 for our surface load limits.

(ii) Light and heavy duty scaffolds: Under dead load and 40% live loads, the nominal bearing pressure on the footpath must not exceed 100 kPa. If the bearing pressure will exceed this, you must provide a report from a structural engineer with your permit application to confirm that the footpath can support the structure without causing damage.

(iii) Special duty scaffolds: the dead load and the maximum non-impact loads must not exceed the nominal bearing pressure of 100 kPa. If the bearing pressure will exceed this, you must provide a report from a structural engineer with your permit application to confirm that the footpath can support the structure without causing damage.

(iv) The effect of standard loading on the stability of earth slopes of adjoining excavations must also be considered.

(v) Scaffold foundations must be monitored by a structural engineer for settlement:

- every six months if the scaffold is mounted on a hard surface
- every three months if the scaffold is mounted on a surface that is unsealed or in poor condition.

(vi) If the bearing pressure leads to the settlement of foundations or ground surfaces, appropriate safety controls must be implemented immediately. You must also:

- report any evidence of subsidence to us as soon as practicable, together with any rectification works required to ensure the ongoing stability of the gantry
- repair any damage to municipal assets to our satisfaction
- provide the three- or six-monthly survey results to us upon our request.

19.3.5 Soleplates

The following apply where a scaffold is mounted directly on the footpath:

(a) Standards are typically supported by baseplates, which must be centrally positioned on a soleplate to ensure the scaffold's stability and protect the footpath surface.

(b) Soleplates (for example, a timber block) must be designed to minimise trip hazards and be positioned parallel to the direction of pedestrian flow. See Figure 19.2 (p.145).

(c) Our preference is for soleplates to be placed on the footpath without fixings so you don't damage the surface. Where this is not possible, you may affix the soleplate to the footpath. See 17.4.5 for our requirements around fixing structures to the footpath.

(d) Where more than one soleplate is used to address differences in surface levels, each one must be mechanically fastened in place.

19.3.6 Bracing, supports and overhead clearances

The following apply where a scaffold is mounted directly onto the footpath:

(a) If pedestrians can pass underneath the scaffold, a minimum clear height of 2700 mm is required from the footpath surface to the underside of the lowest working platform (including the supporting elements underneath the platform), for the length of the scaffold. See Figure 19.2 (p.145).

  (i) It may be necessary to raise this height where concrete feed lines run into the site underneath the scaffold (see 15.7.3 Concrete feed lines), where there is a vehicle crossing into the site or where bicycle lanes are redirected underneath a scaffold.

(b) Where pedestrians can pass underneath the scaffold, we prefer that horizontal railing/ledgers or cross-bracing are not placed between every standard, which can create a tunnel effect and prevent pedestrians from easily exiting the footpath if needed (for example, in the event of a fire or threat to their personal safety). Where possible, exit points should be provided on the kerb side every 20 m along the scaffold.

(c) We strongly discourage the use of back propping to provide additional structural support to a scaffold (for example, with adjustable vertical props). Props are often placed in or adjacent to the pedestrian path, creating a trip hazard for pedestrians. Scaffolds must be designed for all foreseeable loads prior to installation. We will only consider the use of back propping during trench excavation for services by utilities and in unforeseen circumstances that may arise during the course of works. You must obtain our permission prior to installing temporary propping.

  (i) If we approve your proposed use of temporary propping, props must be placed in line with existing standards and meet the colour and visibility requirements detailed in 19.3.19(h) below.

19.3.7 Setback from the kerb

(a) If the scaffold will be mounted directly on the footpath, the distance between the face of the kerb and nearest standard must be a minimum 550 mm where public parallel parking is permitted, to allow for passengers to enter and exit parked vehicles. This distance may be reduced to 300 mm where public parking is not permitted at any time (for example, if an all-hours Construction Permit Zone is in place). A setback also ensures that a camber in the road does not cause a tall vehicle to strike any part of the scaffold. See Figure 19.2 (p.145).

  Where pedestrians are not permitted between the scaffold and kerb (for example, if the path is too narrow for pedestrians), see 15.8.1 for how to appropriately block a footpath with barriers and signage.

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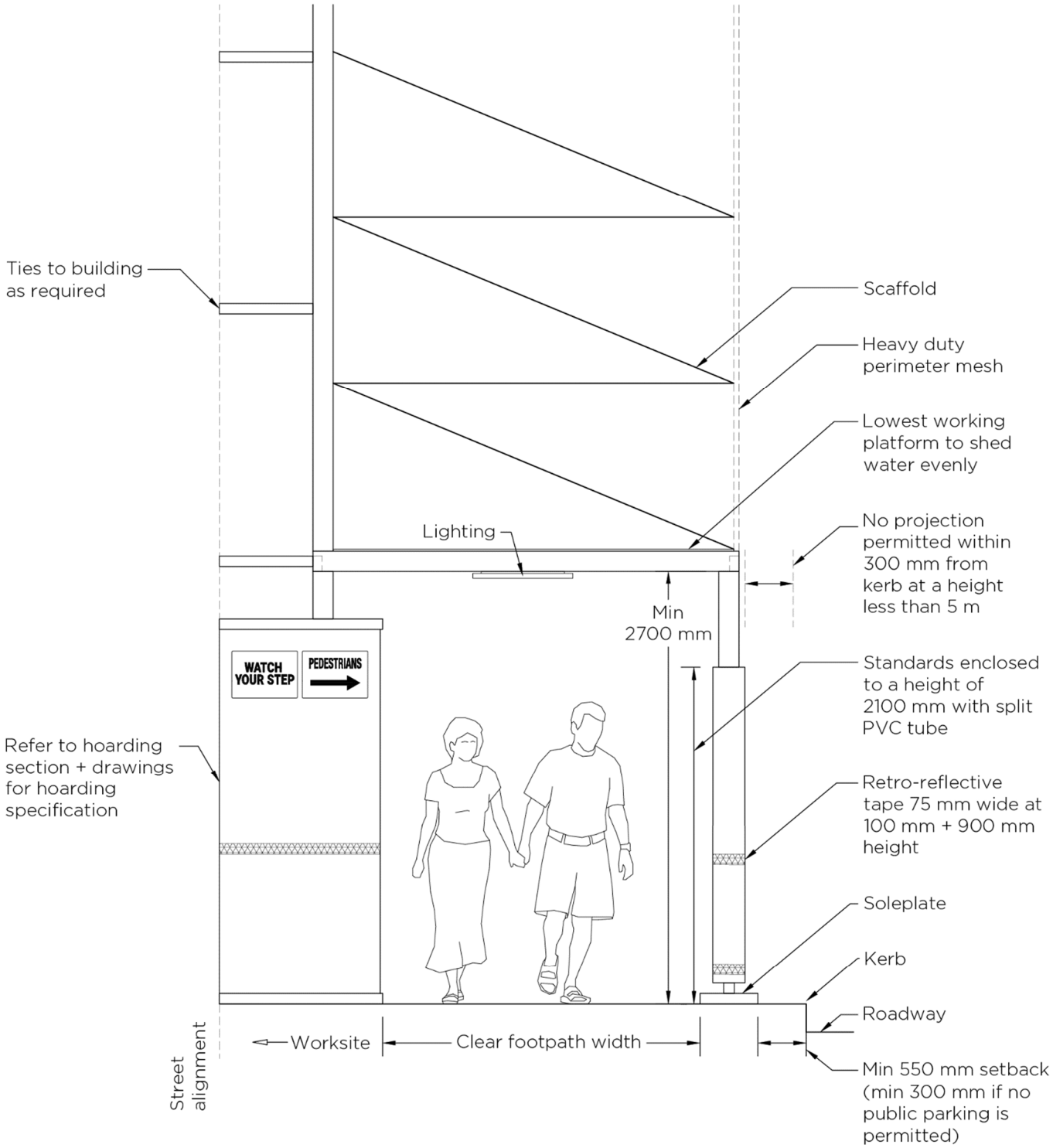
(b) Nothing can protrude from the scaffold within 300 mm from the face of the kerb, at a height less than 5 m from the ground surface level (for example, scaffold components, catch platforms or signage). This is to ensure that a camber in the road does not cause a tall vehicle to strike any part of the scaffold.

Figure 19.2 - Typical scaffold mounted on footpath



19.3.8 Catch platforms

As an object falling from a building will have a greater force of impact the higher the building is, it is essential that any falling material be captured as close to the source as possible.

(a) A catch platform must be provided and be capable of resisting a live load of 5 kPa.

(b) Catch platforms must extend horizontally a minimum 1200 mm from the scaffold and be laid at an incline of between 15 to 45 degrees to the horizontal. Catch platforms must sit outside of the perimeter cladding (see 19.3.9 Perimeter cladding). These must be shown in your dimensioned site plan.

(c) Catch platforms positioned within 300 mm of the kerb edge must be fixed at a minimum height of 5 m above the footpath (in line with 19.3.7(b)). This is to ensure that a camber in the road does not cause a tall vehicle to strike the catch platform. Catch platforms positioned more than 300 mm away from the kerb edge must be fixed at a minimum height of 2700 mm above the footpath.

19.3.9 Perimeter cladding

(a) Scaffolds must be fully enclosed on all sides by perimeter cladding fixed to the outer surface of the frame to screen all scaffolding components (for example, heavy duty mesh, plastic panels, plywood sheeting).

(b) If pedestrians can pass underneath the scaffold, the cladding must start at the base of the lowest working platform, so that it doesn't block lines of sight at street level.

(c) Cladding must be well maintained and kept in good condition for the duration of its placement. It must be uniform in appearance, fitted tightly and securely to the scaffold to resist high winds and installed without gaps.

(d) No advertising is permitted on the cladding (see 16.7.1 Promotional signage for details.

(e) For colour requirements, see 19.3.19.

(f) We encourage you to consider commissioning your own site-specific artwork to be printed on heavy duty mesh and used as perimeter cladding, to lessen the visual impact of the building site. For example, an image of the existing building that would be visible if scaffold were not installed, to disguise building works. This is particularly encouraged where the scaffold will be in place for an extended period, is located in a prominent location in the central city, or where a scaffold will surround a heritage or culturally significant building. You should contact us to discuss whether your proposed artwork will require separate planning approval.

(g) Insulating plastic barriers or plywood sheeting may be required around the perimeter scaffold for secondary electrical protection to prevent arcing from nearby powerlines to the scaffold. For details regarding clearances to powerlines, see 20.8 Lifting safety.

19.3.10 Loading requirements

(a) Light, medium, heavy and special duty scaffolds must be designed to support and withstand all loads in accordance with AS/NZS 1576.1, including live loads (such as the weight of workers and equipment/tools), dead loads (such as the size and weight of the scaffold itself), possible impact forces (such as falling equipment) and environmental actions (such as wind loads).

(b) Where perimeter cladding is fixed to a scaffold, the scaffold must be designed for wind loads in accordance with AS/NZS 1170.2.

19.3.11 Stairways

If access to and from working platforms will be provided via a ground level stairway, this must be contained behind the hoarding on the site side.

19.3.12 Lifting activities around scaffold

(a) Scaffolds must be located away from lifting activities so that hoisted loads cannot come into contact with the structure. If this is not possible, the scaffold must not be occupied while lifting activities are underway. Materials and equipment must also be removed from the scaffold, to prevent anything left on the working platform being dislodged and falling.

(b) A special duty gantry with a hoisting zone will be required in order for lifting activity to occur – see 18.2.7(c) Special duty and 18.3.13 Hoisting zones.

19.3.13 Consideration for adjoining properties

(a) If a scaffold will be located within 3 m of an adjoining building, the working platforms of the scaffold must comply with the following:

(i) White barriers or screens are required on the adjoining building side to protect the privacy and light of occupants. These must be erected a minimum of 1500 mm from the adjoining property and a minimum 2100 mm above the working platform floor level. Any gaps between the barriers must not exceed 125 mm.

(ii) The area within the 1500 mm in (i) above is not to be used for any purpose other than to provide privacy and light to the adjoining building. For example, no working platform must be laid within 1500 mm of an adjoining building.

(iii) Where it is deemed necessary by the relevant building surveyor to provide protection to the adjoining building (for example, in narrow laneways), wire mesh catch platforms with a maximum 50 mm aperture must be erected on the barrier or screen.

19.3.14 Traffic management around scaffold on footpaths

(a) At all times, the minimum clear path width outlined in 15.7.1(d) must be maintained preferably underneath the scaffold (otherwise alongside the scaffold), for the length of the structure.

(i) If pedestrians can pass underneath the scaffold, this width is measured across the footpath between standards, or anything in front of or attached to the standards (for example, between the hoarding plinth on the site side and inner part of the soleplate on the kerb side).

(ii) If pedestrians must pass alongside the scaffold, this width is measured across the footpath between the hoarding plinth on the site side and the nearest fixed object (for example, the face of the kerb or a parking sign).

(b) If your scaffold (including any attachments or associated infrastructure, such as vehicle impact protection measures) will require any part of the footpath or roadway to be closed for any length of time, see 15.7 Managing pedestrians, cyclists and vehicles for requirements.

(c) If you propose to make changes to the existing roadway alignment to accommodate the scaffold, this must be reflected in your CTIA (see 15.10.1 Preparing and submitting a Construction Traffic Impact Assessment (CTIA)).

(d) In addition to all requirements outlined in 15 Traffic management, other traffic management considerations related to scaffolds are as follows:

(i) The scaffold and all attachments (such as horizontal railing, cross-bracing and light fittings) must be designed and constructed to allow lines of sight to be maintained:

- for drivers and cyclists to view traffic control signals and view pedestrian movements at pedestrian crossing points
- for pedestrians to see oncoming traffic and have a clear view of pedestrian signals.

(ii) Any non-transparent sections of scaffolds (for example, where a scaffold is enclosed by a hoarding) must be set back by a minimum 2500 mm from any pedestrian crossing, vehicle crossing, garage entrance or intersection, so it does not obstruct the lines of sight between pedestrians and drivers.

(iii) Any scaffold proposed to be located within 50 m of the following will require more detailed consideration by us:

- any intersection (signalised or non-signalised)
- any pedestrian crossing (such as a zebra crossing, school crossing or signalised pedestrian crossing).

(iv) If road-related infrastructure (such as street lights, parking signs and parking bays) or street furniture (such as bench seats, bins and bicycle hoops) will need to be removed or relocated to accommodate the scaffold, see 10.4.5 for instructions and Table 10.1 (p.40) for an indication of potentially affected items.

19.3.15 Scaffolds on corner sites

(a) Scaffolds on corner sites must be designed to be as open as possible at street level in both directions, so that pedestrians can be seen when they are within 2500 mm of an intersection or crossing.

(b) Standards must be set back from the intersection and any kerb ramps, so there is ample space for pedestrians to safely queue while waiting to cross the road.

(c) Working platforms must be splayed at the corner to allow lines of sight and visual openness to be maintained at intersections for all road users.

19.3.16 Signage and attachments to the scaffold

(a) All warning signage on and around the scaffold must be erected in accordance with AS 1742.3 and Department of Transport's Code of Practice for Worksite Safety – Traffic Management, as stipulated in the Road Management Act 2004.

(i) This includes the following signs to be placed at a height of 2200 mm if the scaffold will be mounted directly on the footpath:

(ii) "Watch your step" signs installed at both ends of the scaffold to alert oncoming pedestrians of the standards adjacent to the pedestrian path.

(iii) If pedestrians need to be directed under or around a scaffold that is offset from the main pedestrian path (for example, if the scaffold is set back considerably from the street alignment), a "Pedestrians → [arrow]" sign must be installed at both ends of the scaffold.

(b) Any barbed wire, razor wire, chicken wire or the like affixed to any part of a scaffold must begin no less than 2400 mm above the adjacent surface pavement.

(c) For advertising signage requirements, see 16.7 Signage.

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19.3.17 Vehicle impact protection

(a) A scaffold mounted directly onto the footpath must be suitably protected from the risk of vehicle impact, via:

(i) distance from assessed risk (where a suitable distance is achieved between the roadway and the scaffold), or

(ii) protection from assessed risk (where measures external to and independent of the scaffold, such as road safety barrier systems or impact absorbing barriers, provide suitable protection).

(b) If suitable protection cannot be achieved, the scaffold must be designed to remain safe and stable in the event of a vehicle impact.

(c) Vehicle impact protection measures must be designed by a suitably qualified person for each scaffold based on the specific site conditions to our satisfaction. Proposed measures must be shown in your CTIA and satisfy the same criteria as gantries – see 18.3.12 Vehicle impact protection.

19.3.18 Lighting

(a) In addition to all requirements set out in 16.6 Lighting, the following requirements apply to scaffolds where pedestrians can pass underneath:

(i) Lighting underneath a scaffold must be designed to comply with AS/NZS 1158.3.1 (Lighting for roads and public spaces – Pedestrian area (category P) lighting – Performance and design requirements), table 2.4 Lighting subcategories for connecting elements.

(ii) The lighting underneath a scaffold must operate at all times if the footpath receives low level of natural lighting during the daytime as a result of the structure.

(iii) Where a scaffold is installed above a street awning that has little or no lighting, the lighting system must provide additional lighting to ensure the footpath is adequately lit for pedestrians.

19.3.19 Colour and visibility requirements

(a) Standards must be painted white up to a minimum height of 2100 mm from the footpath surface to ensure they are visible to all pedestrians.

(b) PVC pipe placed around each standard must also be white.

(c) Duct tape used to secure the PVC pipe must be white.

(d) A contrasting strip of red retroreflective adhesive tape 75 mm wide must be affixed around each PVC pipe at 100 mm and 900 mm above the ground surface level, to maximise visibility in low light conditions. See Figure 19.2 (p.145).

(e) Horizontal rails and any cross bracing between standards must be painted white.

(f) Soleplates underneath standards must be painted white for contrast against the footpath surface.

(g) Perimeter cladding must be black, unless printed with site-specific artwork (see 17.4.3(d) above).

(h) Any approved temporary props must receive the same colour and tape treatment as outlined in items (a), (d) and (f) above.

(i) No advertising is permitted on standards, soleplates, PVC pipe, duct or retroreflective tape or temporary props to ensure the necessary colour contrast is retained for all pedestrians.

(j) For hoarding colour, see 17.4.3 Colour and visibility requirements.

19.4 Design requirements for suspended scaffolds

19.4.1 All suspended scaffolds must meet the requirements of AS/NZS 1576.4. You must submit certification from a structural engineer for the installation of the scaffold.

19.4.2 Protection underneath suspended scaffolds

(a) If there is no structure already in place to provide overhead protection to pedestrians (for example, a gantry) from materials or debris falling from a suspended scaffold, a sufficiently large area below the scaffold must be barricaded off to create an exclusion zone. This could be achieved with a hoarding or barricade. The size of this exclusion zone must be calculated by a sufficiently qualified person, taking into account the dimensions of the swing stage, operating height, wind actions and nature of the work being undertaken. This must be reflected in your dimensioned site plan.

(b) Signage should be displayed to warn of workers above.

(c) See 15.7.1(d) for the minimum clear path width that must be maintained alongside the exclusion zone at all times.

(d) Where it is not possible to create an exclusion zone, a gantry or a scaffold mounted on the footpath must be installed to provide the necessary protection.

19.5 Public tree protection

19.5.1 In addition to all requirements outlined in 11 Public trees and green infrastructure, the following requirements also apply to all scaffolds and catch platforms:

(a) Catch platforms should be located outside of Tree Protection Zones. If this is not possible, their location must minimise the need for pruning.

(b) If your scaffold will be placed within a Tree Protection Zone, you must submit a Tree Protection Plan (see 11.2.2 Tree Protection Zones and 11.2.3 Tree Protection Plans) with your permit application that meets all requirements outlined in 19 Precaution – Scaffolds and catch platforms and shows the proposed scaffold and catch platforms in relation to the nearby public tree(s).

(c) The scaffold (including catch platforms) must be designed to minimise impacts on public trees. This may require designing a custom structure for the site, instead of using a prefabricated product. No part of the scaffold may be located within a tree plot or in contact with any part of a tree. If there is the potential for any part of a scaffold or catch platform to come into contact with a public tree, suitable protection must be in place or the scaffold design modified to ensure the tree is not impacted.

20. Cranes, hoists and mobile plant

Lifting and hoisting of loads and personnel is an integral part of construction activity in a growing capital city. We place strict controls on these activities and the use of associated fixed and mobile plant to minimise impacts to the safety or amenity of public space for those living in, working in or visiting the municipality.

You must have a permit to operate a mobile crane, lift, hoist or other plant on or above a road or other public space. Tower cranes installed on building sites that operate or weather vane over public space also require approval as part of a Construction Management Plan.

Lifting activity and the use of mobile plant must meet the requirements listed below.

20.1 Objectives

All lifting activity should:

- be contained within the subject site wherever possible
- minimise any disruption to access and activity in public space
- minimise any visual and audible impact
- ensure all public and private assets are protected from damage.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

20.2 General considerations

20.2.1 Lifting activities must comply with AS 2550 Cranes, Hoists and Winches – Safe Use and Worksafe Victoria's Compliance Code: Plant.

20.2.2 All lifting should occur within the site, or directly from the road into the site, wherever possible.

(a) If lifting activity will occur on or above an arterial road, railway, tramline, bus lane or waterway, you will also need third-party approval from the relevant responsible authority (see 7 Third party approvals).

(b) Where site constraints require any part of a crane or mobile plant to enter the airspace above land other than municipal roads (including arterial roads, adjoining buildings, tram and bus lanes, parks, waterways and reserves), this must not occur until formal written agreement has been reached with the affected property owner or responsible authority.

(c) Part (b) above also applies to the weather vaning of tower cranes (see 20.3.5 for more information).

(d) After you have obtained written agreement from the affected parties in (a) and (c) above), any occupiers of these properties should be notified prior to works commencing. See 6.6 Notification for details.

20.3 Tower cranes

20.3.1 Plans for tower cranes must be included in your Construction Management Plan (CMP).

(a) Your CMP must include:

(i) crane specifications and dimensions

(ii) the proposed location, specifications and dimensions of the crane foundation

(iii) the full extent of the operating area for each crane.

(b) All tower crane foundations must be contained within the site and not encroach on the road.

(c) If your tower crane operating area could impact hospital helipad flight paths, additional consultation and protocols may be required as conditions of your planning permit.

(d) If your tower crane will move loads above any part of the road or footpath, you must also comply with all hoisting zone requirements in 18.3.13.

(e) With the exception of a crane boom in weather vaning mode (see 20.3.5 below), no part of a tower crane can overhang public space at any time without precautions installed below. This includes crane machine decks, counter jibs and counterweights and is to protect the public from falling oil and loosened or unsecured objects (such as a counterweight) in addition to the load being lifted.

20.3.2 Before you erect or operate any tower crane, inspections and tests must be carried out in accordance with AS 2550.4 and WorkSafe Victoria guidelines. Inspection and testing should be carried out or certified by a competent person independent from the crane's owner.

20.3.3 Tower cranes must not be operated outside normal construction hours (see 13 Hours of building work).

20.3.4 Noise, vibration and exhaust

(a) Crane operations must comply with our noise and vibration requirements (see 14.3 for details)

(b) Any engine exhaust must comply with Environment Protection Authority Victoria requirements and must discharge clear of any adjoining property windows or air-intake grilles by a minimum of 12 m.

20.3.5 Weather vaning

Tower cranes may weather vane (allowing the crane to rotate freely to minimise wind load) after hours only over municipal roads where we are the responsible authority. This may only occur without a formal written agreement (referred to in 20.2.2(a)) if:

(a) the full extent of the crane operating area in weather vane mode is detailed in your approved CMP (see 20.3.1 above)

(b) any occupiers of the road (such as outdoor cafes, vendor kiosks and temporary installations) are notified prior to works commencing. See 6.6 Notification for details.

20.3.6 Crane jumping

(a) Crane jumping (including the hoisting, fitting and climbing of additional tower crane sections) must occur within permitted hours (see 13.1 for details).

(b) We do not support out of hours permit applications for crane jumping on Sundays, to minimise impacts on the amenity of local stakeholders. Residents should be able to enjoy a day free from construction noise. If you need to perform a crane jump during periods of reduced activity on site, consider scheduling jumps for industry rostered days off.

20.3.7 Signage

(a) Tower cranes and hoists installed on site may display the minor and appropriately placed name of the plant owner or hire company only on the main body of the crane (on the cabin or machine deck) or hoist (on the car).

(b) Signage other than (a) above – inclusive of signage on panels, banners or on flags affixed or hung – must not be placed anywhere on the crane or hoist (such as on towers, masts, cages, screens, booms or jibs) unless specifically approved in a planning permit.

(c) Signage must not be illuminated after hours (including signage bearing the name of the plant owner or hire company) unless specifically approved in a planning permit.

20.4 Personnel and materials hoists

20.4.1 Plans for personnel and materials hoists must be indicated in your CMP.

(a) We do not support hoists being located in public space.

(b) Where site constraints require a hoist to be located in the road, you must explain the reasoning for this proposal and demonstrate to us that you have exhausted all other options to meet your requirement. In these circumstances, we may consider approving a hoist being installed in the road provided:

(i) it is located within a secured area, do not obstruct existing traffic flows or inconvenience road users, and is isolated from public access and protected from vehicle impact; or

(ii) it is located on the deck of a special-duty gantry (see 18.4 Structural design requirements for detailed requirements).

(c) Hoists must not be located where any load will be lifted above them (for example, loads being lifted into or across a site by tower cranes or mobile cranes), or beneath the machine deck of a tower crane.

(d) Hoists should be located to minimise the impact of noise on adjacent property (for example, hoist operating noise that would affect apartments directly across a laneway from a proposed location).

20.5 Mobile cranes

20.5.1 Mobile cranes in public space

(a) You must have a permit to operate a mobile crane from public space.

(b) We only support the use of mobile cranes in public space (for example, operating from municipal roads) for:

- maintenance work on existing buildings

- works occurring within public space
- the installation or removal of tower cranes from private property
- delivery of large plant and equipment where there is no tower crane on site
- delivery of major structural elements where lifting is considered unsafe for tower cranes or where tower cranes have been removed.

(c) We do not support the use of mobile cranes in the road to demolish or construct substantial parts of a building, to minimise the disruption to traffic, access and activity in public space.

(d) Lifting activities require specific traffic management considerations in addition to the requirements listed in 15 Traffic management. These include:

- obtaining route guidance and authorisation for special purpose vehicles (including mobile cranes) and oversize vehicles as required from the Department of Transport (DoT) and the National Heavy Vehicle Regulator (NHVR)
- confirming that your selected route can accommodate the swept paths of your mobile crane and any loads being transported to and from the location
- timing your operation to minimise the disruption to local traffic and minimise the duration that plant and equipment is standing on the road (see 20.9.2(c))
- creating an exclusion zone to keep the public clear of the entire activity area (see 20.8.3(c)(iv) for details)
- providing safe alternative routes of access for adjoining property occupiers and road users while traffic management measures are in place.

(e) You will need to prepare a Traffic Management Plan (TMP) to support your permit application. In addition to the requirements listed in 15.9.1 Preparing and submitting Traffic Management Plans (TMPs), your TMP for operating a mobile crane from the road or using a mobile crane to install/remove an on-site crane must also include:

- vehicle swept paths to and from the site for any proposed mobile crane and for associated load transport vehicles. All swept paths, with clearance margins, must be accommodated on the roadway without mounting kerbs.
- the full extent of mobile crane lifting activity, including the position of the crane, outriggers and external pads, boom length and operating arcs. Stormwater channels and pits must not be blocked.
- the full extent of any encroachments where lifting activity is proposed to occur on or above public space
- the full extent of the exclusion zone, including the position of all safety barriers, signs and traffic controllers
- copies of third-party approvals obtained from responsible authorities and providers of public transport as required (see 20.2.2(a) for details)
- the location of all dogmen.

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20.6 Concrete trucks and pumps

20.6.1 We strongly discourage the operation of any concreting plant from public space. All concreting plant and equipment (such as concrete mixer trucks, concrete pump engines and concrete pump boom trucks) should be operated within the site wherever possible to minimise the impact of noise in public space and of temporary traffic management measures that affect the roadway and footpath.

20.6.2 You should consider the noise sensitivity of surrounding property and public space in determining a suitable location for concreting plant to be operated on site. Fully-enclosed acoustic barriers should be installed if a concrete pump will be on site for an extended period of time, or will be operated within 20 m of any residential property. See 14.3 for general guidance on noise.

20.6.3 If site constraints prevent you from locating and operating concreting plant on site, you must have a permit to operate it from public space. If a concrete pump is proposed to be operated outside the site boundary, this will require additional assessment and take longer than our standard timeframes.

(a) You must demonstrate to us that you have exhausted all other options to find a suitable location on site.

(b) You should install acoustic barriers to minimise the impact of plant noise on road users and neighbouring properties.

(c) If you will not use a boom truck, concrete feed lines into the site should be run over an adjacent gantry wherever possible. This is to avoid feed lines crossing the footpath and eliminate the need for pedestrian ramps to be installed.

(d) Where site constraints prevent feed lines being run overhead, your proposal to run feed lines across the footpath must be indicated on your permit application. Feed lines on the footpath must be ramped over so that footpaths remain open at all times (see 15.7.3 for detailed requirements regarding concrete feed lines in public space).

(e) All connection points on concrete feed lines must be suitably shielded to prevent concrete being sprayed into the road in the event of a connection failure.

(f) Any plant operated in public space must be set up, maintained and monitored to the manufacturer's specification to ensure its safe operation.

20.6.4 Any residues and wastes (including wash out water) from the use of concrete plant must be removed from the road and prevented from entering the stormwater system.

(a) If concrete plant is permitted to operate from the road, you must protect downstream stormwater pits with gravel sausages while the plant is operating and during any clean-up of material spilt on the road.

(b) Concrete plant must not be washed down in public space. Wash down must occur either within a designated, contained area on-site or at a suitable designated wash down facility.

(c) We will inspect our stormwater assets at the completion of your project. If we need to repair or replace damaged pits or pipes the cost will be deducted from your security. See 10.4.2 for more information.

(d) See 12.10 Stormwater and sediment control and 12.11 Vehicles accessing the site for detailed information on wash down areas and the prevention of stormwater contamination.

20.7 Other mobile plant

20.7.1 Mobile plant in public space

(a) You must have a permit to operate any mobile plant from public space (including the roadway or footpath).

(b) Examples of mobile plant and its operation in public space include:

- truck cranes and truck-mounted hoisting equipment operating from the roadway to load or unload materials
- forklifts operating from the roadway or footpath to load, unload or move materials
- elevated work platforms (boom lifts, boom pumps, travel towers, cherry-pickers, or scissor lifts) operating from the roadway or footpath to undertake façade, awning or window works.

(c) You will need to prepare a Traffic Management Plan (TMP) to support your permit application. In addition to the requirements listed in 15.9.1 Preparing and submitting Traffic Management Plans (TMPs), it must also include:

- the full extent of mobile plant travel (including swept paths with clearance margins)
- the full extent of lifting activity (including the position of the plant, outriggers and external pads, boom length and operating arcs). Stormwater channels and pits must not be blocked.
- the full extent of the exclusion zone, including the position of all safety barriers, signs and traffic controllers
- copies of approvals obtained from responsible authorities and providers of public transport as required (see 20.2.2(a) above for details)
- the location of all dogmen.

20.8 Lifting safety

20.8.1 Booms from any mobile plant must not operate above an area that remains open to road users without overhead protection structures in place (see 18.3.13(e) Hoisting operations for details).

20.8.2 If the area of delivery, travel or operation of mobile plant is near overhead electrical powerlines, before any work commences, you must follow the relevant No Go Zone safety procedures to prevent any part of the plant or load from coming too close or contacting live overhead assets. Information on safety procedures is available from WorkSafe Victoria or Energy Safe Victoria.

20.8.3 Exclusion zones

(a) You must create an exclusion zone around any mobile plant operating area to protect the public.

(b) At a minimum, the exclusion zone must extend 1000 mm beyond:

(i) the full extent of mobile plant (including the machine deck and counterweights, outriggers and load bearing pads)

(ii) the full operational range of any jib or boom

(iii) any travel area (as required).

(c) The exclusion zone should be enlarged as required depending on:

(i) the volume of pedestrians in the area

(ii) the nature of any required traffic management plan associated with the works activity

(iii) the distance between the lifting activity and any active roadway lanes

(iv) the speed limit applicable to adjacent active roadway lanes.

(d) You must install containment measures to physically prevent public access to the exclusion zone. Traffic management devices must be used as required in accordance with AS 1742.3 and be clearly indicated on a Traffic Management Plan (TMP). See 15.9.1 for details on preparing your TMP.

(e) Pedestrians must not be able to easily bypass containment measures to enter the exclusion zone.

(f) Plant operators and dogmen must check that the size of any exclusion zone is adequate and that all required containment measures are in place before commencing any activity.

20.9 Public amenity

20.9.1 Noise

(a) Depending on the locality, plant size and planned activity, we may restrict the times during which lifting activity can occur to minimise the impact on local amenity.

(b) If we permit you to conduct lifting activity outside of our hours of building works (see 13.1), you must not use loudspeakers or whistle signals for communication.

(c) Mobile plant must be erected and dismantled in such a way to minimise noise. See section 14.3 Noise and vibration for details.

(d) In addition to requirements set out in 6 Stakeholder engagement, your notification to local stakeholders must inform them that lifting activity will take place and the types and sources of noise expected to be generated. For example: engine noise, hammering during crane erection and dismantling, signal whistles, loudspeaker and radio communications.

20.9.2 Traffic impact

(a) Project managers and plant operators should aim to minimise the total duration of mobile plant use in public space to limit the impact on road users and nearby property occupiers.

(b) Delivery of mobile plant should be planned to minimise disruption to existing traffic flows in the surrounding area. The permitted hours indicated on a permit are inclusive of delivery to the site.

(c) Large mobile cranes may need to be transported outside of peak traffic times to minimise traffic impact (see 20.5.1(d) for more information).

(i) If off-peak transport is required, you must have an out of hours approval to allow your mobile crane to stand on the road prior to the permitted hours of crane operation indicated on the permit.

(ii) Crane erection or component assembly must not take place prior to the permitted hours of operation indicated on the permit.

20.9.3 Exhaust from all powered mobile plant must be discharged at least 6 m from any air intake opening, natural ventilation device or opening to preserve the air quality of adjoining properties.

20.10 Public tree protection

20.10.1 In addition to all requirements outlined in 11 Public trees and green infrastructure, the following requirements also apply to all mobile plant:

(a) If your mobile plant will be placed or operate within a Tree Protection Zone, you must submit a Tree Protection Plan (see 11.2.2 Tree Protection Zones and 11.2.3 Tree Protection Plans) with your permit application. The plan must be developed in consultation with the mobile plant contractor and overall project manager and must meet all requirements outlined in Section 11 and show all parts of the proposed plant and its working range in relation to the nearby public tree(s).

(b) The positioning and use of mobile plant must be designed to minimise impacts on public trees and avoid the need for pruning. Dependent on tree form and branch structure, it may be possible to avoid pruning by tying back branches to allow for plant operation (under the guidance of a suitably qualified arborist and approved by us). No part of the plant (or any load being lifted) may be located within a tree plot or in contact with any part of a tree.

20.11 Asset protection

20.11.1 You must take steps to ensure the protection of municipal assets and those owned and managed by private parties, utilities and public transport providers against any damage caused by mobile plant. In addition to the requirements in 10 Asset protection and reinstatement, you are expected to:

(a) ensure a ground assessment and loading calculations have been undertaken by a structural engineer for all vehicles or mobile plant exceeding surface load limits in 10.5.1 Surface protection and load limits, and as required by Worksafe Victoria Compliance Codes and the plant operator for the safe operation of any lifting activity in the proposed location

(b) select, position and set up mobile plant to eliminate risk of damage to assets

(c) use vehicles on rubber or pneumatic tyres, or on rubber track pads

(d) place appropriate protection materials beneath mobile plant to distribute loads and prevent damage to surfaces.

20.11.2 Outriggers

Mobile plant must use outrigger bearing pads to distribute loads as required, subject to ground assessment by a structural engineer (see 20.11.1(a)) and surface load limits (see 10.5.1 for details).

(a) The roadway surface is our preferred location for placing any outriggers. Outriggers on footpaths, kerb or channel, median and nature strips should be avoided where possible to prevent damage to road assets.

(b) If site constraints require outriggers to be placed on the footpath, bearing pressures must observe surface load limits (see 10.5.1) and be evenly distributed using bearing pads.

(c) Bearing pad material, size and thickness must be determined by a qualified structural consultant.

20.11.3 Reinstatement

(a) You must reinstate the works area to its former standard. See 10.6.2 Reinstatement of our assets for requirements related to temporary and permanent reinstatement.

(b) If works associated with reinstatement will involve any excavation, traffic impact, impact to municipal assets or modification of vehicle crossings, you will need our consent for works (road works) prior to conducting these works (see 22.5.1 General considerations for works in the road for details).

21. Demolition

21.1 Objectives

All demolition work should:

- be contained within the subject site wherever possible
- restrict the breaking down of materials on site to the minimum extent necessary
- ensure that dust, noise and vibration do not impact public space and nearby property
- ensure that any vacant site is left cleared, clean and secured.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

21.2 General considerations

21.2.1 Demolition of buildings and structures must comply with the requirements of AS 2601 (The Demolition of Structures) so that any risk to the health and safety of the public will be minimised. The Worksafe Victoria Compliance code: Demolition provides further guidance on demolition works.

21.2.2 For hoarding requirements alongside demolition sites, see 17.4.1(c). For gantry requirements, see 18.3.11.

21.2.3 If building works consist of demolition only and the site is to be left vacant, it must be cleared of all unsightly debris, left in a clean state and fully fenced with solid hoarding. The owner is responsible for the site after it has been vacated by the principal contractor or stage contractor. We may require the property owner to provide a security deposit or bond in these circumstances (see 10.4.2 Security deposits and bonds for more information).

21.2.4 As unused buildings can become infested with vermin and rodents over time, suitable pest control measures may be necessary prior to demolition activity to prevent migration of pests into adjoining properties. You should consider engaging a pest control company to assist with this.

21.2.5 Precautions must be taken to minimise the spread of mud, rubble and debris by vehicles leaving the site. See 12.11 Vehicles accessing the site for more information.

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21.3 Façade retention structures

21.3.1 While primarily an OH&S obligation, a construction methodology / erection sequence for façade retention structures should be prepared by the principal contractor and approved by the design engineer, prior to the demolition of structural elements behind the façade.

21.3.2 After a façade retention structure has been installed, it must be inspected by a structural engineer.

(a) Within 48 hours of completing the installation of the façade retention structure, you must submit the inspection report that confirms the structure has been installed as per the structural design.

(b) Façade retention structures must be removed within three months of the building structure reaching the height of the façade, unless otherwise agreed by us.

22. Excavation

Excavation may pose a safety risk to the public and a risk of destabilising or damaging adjoining land, property and assets. You are responsible for protecting the public and adjoining property (including public space) from damage that could be caused by your excavation.

Within worksites, excavations that adjoin or extend into the road must provide protection measures to support the road. To achieve this, you'll need to consult with the coordinating road authority (see 7.2 for more information on road authorities).

You also need to obtain consent for works (road works) from the coordinating road authority if you plan to conduct any work within the road (like excavating or installing infrastructure in the roadway, footpath, median or nature strip), unless you are exempt under the Road Management (Works and Infrastructure) Regulations 2015. You must notify us when you have completed those works, and you must reinstate the work area in accordance with our conditions of consent. See 22.5 Consent for works (road works) for more information.

Excavation work must meet the requirements listed below.

22.1 Objectives

All excavation should:

- protect public and private property and assets from damage and future encumbrance
- be undertaken in accordance with good engineering practice
- maintain a safe environment for road users and minimise disruption in public space
- effectively control all site waters, dust and mud
- minimise any visual and audible impacts.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

22.2 General considerations

22.2.1 All excavation work must:

(a) comply with Worksafe Victoria's Compliance Code: Excavation.

(b) be planned and undertaken in accordance with:

(i) relevant Australian Standards

(ii) engineering recommendations from certified reports prepared by suitably qualified persons (for example, a suitably qualified geotechnical engineer and a structural engineer)

(iii) any relevant building permit and agreed protection work notices.

22.2.2 Underground and overhead assets

(a) You must consult with the relevant authority or asset owner when your excavation will occur through, adjacent to, or nearby existing infrastructure. This includes assets located overhead, in-ground or underground (examples include overhead powerlines, garbage compactors, telecommunications access cabinets and traffic detector loops).

(b) You must check for the presence and location of underground services before you commence any excavation work, to prevent harm to workers or to the public and to avoid service interruptions and significant costs. The Dial Before You Dig service provides access to asset plans and information from registered utilities including gas, electricity, water and telecommunications providers. Information is available from Dial Before You Dig or by calling 1100.

(c) Information on how to excavate around underground assets, including clearances, safety procedures and any requirement for permits, should be obtained from each asset owner. Asset owners can be identified and contacted centrally via Dial Before You Dig.

(d) If the area of delivery, travel or operation of excavation plant or equipment is near overhead electrical powerlines, before any work commences, you must follow the relevant No Go Zone safety procedures. This is to prevent contact with live overhead assets. Information on safety procedures is available from WorkSafe Victoria or Energy Safe Victoria.

22.2.3 Protection of property

(a) Processes for the protection of adjoining property (including public property such as roads and public spaces) from the risks of significant damage from building works are provided for under the Building Act 1993 and Building Regulations 2018. The relevant building surveyor may determine that protection work is required to protect adjoining property from damage resulting from your excavation.

(b) Protection work provides protection to adjoining property from damage resulting from building works and includes:

- vertical and lateral support
- protection against earth pressures
- ground anchors
- shoring
- other work designed to maintain the stability of adjoining property.

(c) If your excavation is proposed to adjoin a road, or if protection work is required to support the road, or if shoring will project into the road, you must consult with the coordinating road authority regarding the proposed protection work. See 22.4 for more information on excavation adjoining a road or public space.

(d) If your excavation could affect the stability of any services or structures belonging to a utility or public transport provider, you must obtain the approval of the responsible authority prior to any permits being granted or work undertaken. See 7 Third party approvals for more information.

(e) Buildings within the site and in the surrounding area must not be adversely affected by shock or vibration. Consultation with local stakeholders must consider and implement special precautions that may be required when excavating nearby buildings containing sensitive equipment (such as hospitals).

22.2.4 Precautions for public protection

(a) It is the role of the relevant building surveyor to determine if and when precautions beyond the street alignment are required, prior to the carrying out of building works.

(b) If your excavation could present any risk to the public, public property or public space (for example, if your excavation site adjoins a road), precautions must be taken. The perimeter of the work site must be guarded or secured using road safety barrier systems, hoarding or fencing as required to minimise any risk to road users and prevent unauthorised access to the site. See 17 Precaution – Hoardings for more information.

(c) When assessing risk to the public, consideration must be given to:

(i) the risk of vehicles crashing through hoardings and into deep excavations, particularly in locations where excavation sites adjoin busy roads and at intersections (see (e)(ii) below)

(ii) the risk of live loads that may be imposed on temporary fences or hoardings by crowds during large gatherings (which could occur during public events or protests), potentially causing fencing or hoarding to fail and allow access to the site

(iii) the risk of ground settlement, adverse weather or excavation incidents (such as prolonged heavy rainfall, ruptured water pipes, ground slip, erosion or subsidence) compromising site security and public safety

(iv) the design and position of temporary structures that will be located adjacent to excavation sites (such as gantry columns, hoarding counterweights or fixing systems, road safety barrier systems or impact-absorbing bollards) to account for the above risks.

(d) Irrespective of your risk assessment, we may require the installation of road safety barrier systems if we consider proposed or existing excavation work poses sufficient risk to road users on an adjacent road.

(e) If an excavation is located within the road, precautions must be taken in accordance with the Road Management Act 2004 Code of Practice: Worksite Safety – Traffic Management to protect the safety of all road users and of persons engaged in the work. In addition:

(i) while hoarding may be necessary to secure excavation associated with some long-term works (such as major infrastructure projects), its use in the road should generally be avoided to ensure that lines of sight are not obstructed

(ii) if works present a hazard to vehicular traffic (due to the proximity of works to live traffic or changed nearby traffic conditions), precautions must include road safety barrier systems (in accordance with AS 1742.3). An excavation of more than 150 mm depth has the potential to damage a vehicle even at low speeds.

(iii) if works present a hazard to pedestrians (due to their proximity to footpaths open to the public):

- precautions must include longitudinal channelizing devices (such as interconnected light weight modules, in accordance with AS 1742.3) or temporary fencing (in accordance with AS 4687)
- temporary fencing in accordance with requirements in 17 Precaution – Hoardings must be installed surrounding excavation of more than 300 mm depth

- the use of tape or plastic mesh fencing is not sufficient for pedestrian safety around excavation and must not be used to exclude pedestrians from an excavation in the road
- longitudinal channelizing devices in accordance with AS 1742.3 may be used without temporary fencing if the work in the footpath or nature strip is limited to the use of an existing service cover or inspection opening.

(iv) if the area will be left unattended or if the area will be reopened to road users before the completion of excavation or reinstatement work, temporary fencing or temporary surface covers must be used. See 22.5.9 for details. Light weight precautions that can be readily moved are not suitable for securing unattended sites in after-hours arrangements.

(f) Danger signage (in accordance with AS 1319) warning of any deep excavation must be installed on the face and at both ends of the installed precautions. For frontages longer than 20 m, additional signage must be placed at 10 m intervals on the precaution face.

22.2.5 Public tree protection

In addition to all requirements outlined in 11 Public trees and green infrastructure, the following requirements also apply to excavation:

(a) Where excavation is proposed within a Tree Protection Zone, you must submit a Tree Protection Plan (see 11.2.2 Tree Protection Zones and 11.2.3 Tree Protection Plans) prior to any excavation commencing on site. The Plan must meet all requirements outlined in Section 11 and show the exact location of all proposed excavation in relation to the nearby public tree(s). See 11.2.2(d) for our specific requirements for excavating within a Tree Protection Zone.

22.3 Bulk excavation

22.3.1 Legislative requirements

A bulk excavation proposed as a component of building works that require a building permit is subject to requirements set out in the Building Act 1993 and Building Regulations 2018.

22.3.2 Construction Management Plans

(a) You will need to submit a Construction Management Plan (CMP) to us for approval if your proposed site works will involve bulk excavation or will require any shoring work that involves intrusions into the road (see 4.4 When we require a CMP for more information).

(b) In addition to the requirements in 4 Construction Management Plans (CMPs), your CMP must include:

(i) plan and section drawings, to scale, showing:

- the location and extent of all excavation
- adjacent streets, infrastructure, assets and services
- full engineering details of all shoring work.

(ii) certified structural engineering computations, drawings and specifications

(iii) a certified geotechnical engineering report

(iv) details of all members and connections

(v) details of the shoring procedure including the installation and extent of removal of any temporary projections (for example, ground anchors) beyond the street alignment

(vi) detail of temporary drainage arrangements during excavation, including the means of managing stormwater and containing sediment on site.

22.3.3 Planning

(a) You should minimise the area of land that is required to be cleared to enable excavation and building works. Keeping vegetation such as grassed areas intact, particularly at site boundaries, helps limit erosion, dust and the transport of soil off site by surface water.

(b) You should plan your work so that clearing and excavation does not occur until building works are able to start, to minimise:

- hazards associated with excavated sites that are unattended
- the likelihood of excavated areas becoming inundated with water
- erosion and any movement of material (and creation of nuisance) through water run-off and wind action.

(c) You must prevent or minimise any environmental impact that may result from the disturbance of contaminated soil. If your excavation work could involve the disturbance, handling or removal of any potentially contaminated soil (for example, from past chemical leaks or poor waste management) or could risk causing contamination (via the exposure of acid sulphate soils to oxygen while excavating) you must comply with all requirements of the Environmental Protection Authority Victoria.

- As a starting point for enquiries, datasets on the condition of land and groundwater in Victoria are available via the State Government Victoria Unearthed website.
- As a reference, our procedures for handling contaminated soil and a summary of regulatory requirements is available from our website.

(d) All bulk excavation work must be subject to geotechnical engineering assessment.

(e) All shoring measures must be subject to structural engineering assessment.

(f) The face of an excavation must be progressively stabilised as the excavation work progresses in accordance with the recommendations of suitably qualified geotechnical and structural engineers and the Worksafe Victoria Compliance Code: Excavation.

(g) Stockpiling of excavated material

(i) Stockpiles of excavated material must remain within the site. You should minimise stockpiled materials wherever possible. If stockpiling is unavoidable, you must employ methods for preventing dust and other airborne matter from impacting the surrounding area. These measures must also be effective when the site is unattended. See 22.3.5(c) and 12.9 Air and dust management for more information.

(ii) On sloping sites, excavated material must be placed on the down-slope side of the excavation to avoid increasing the effective depth of excavation and to reduce the risk of ground collapse and flooding. Excavated material should be placed so as to channel rainwater and run-off away from the excavation to designated treatment, filtration and discharge points.

(h) Vehicle movements

(i) Vehicle movements must comply with section 15 Traffic management and all requirements of an approved Construction Traffic Impact Assessment (CTIA), see 15.10.1 for details.

(ii) You must take steps to minimise dust and other airborne matter caused by trucks entering and leaving the site. Details on the method and frequency of watering down driveways and vehicles, with consideration to water efficiency, must be included in your CMP. See 12.11 Vehicles accessing the site and 12.9 Air and dust management for more information.

22.3.4 Stormwater, drainage and de-watering

(a) Controls on the drainage and de-watering of excavation sites are required to prevent the potential impacts caused by polluted waters entering the road, private property, and stormwater or sewage networks. These include:

- mud, soil and sand obstructing drainage flows and causing local flooding
- discharges to the stormwater drainage network reducing the network's capacity to handle peak rainfall events
- pollutants (including concentrations of suspended sediment) reaching waterways, affecting water quality and environmental habitats
- mud and uncontrolled surface water making roadways and footpaths slippery for road users
- mud, soil, sand and surface water entering adjacent private property.

(b) All waters (including stormwater, drainage, flushing, wash-down, recycled or other waters) must be contained and managed on site, or discharged to stormwater or sewage with appropriate approvals (see 12.10 Stormwater and sediment control for details), or transported off site to a licenced treatment facility. Waters must not be allowed to leave the excavation site in an uncontrolled manner.

(c) We do not permit the discharge of groundwater to the municipal stormwater drainage network.

(d) Any proposed de-watering must comply with site-specific geotechnical engineering specifications, and consider:

(i) the safety of the foundations of the building works

(ii) the safety of adjacent buildings, structures, assets and services

(iii) the integrity of any excavation, bore or underground works on adjacent land.

(e) Specific engineering provisions must be made for any proposed excavation below the water table, due to the potential impacts of changes to groundwater. These can include ground movement causing damage to existing buildings, services and assets (including road surfaces and stormwater pipes).

(f) Areas of bulk excavation must be kept free from water, and adequately drained or pumped to sumps fitted with a silt trap.

(g) To discharge any waters from the site you must comply with Environment Protection Authority Victoria regulations and any requirements of the relevant authority. See 12.10 Stormwater and sediment control for detailed information on requirements for approval or consent to discharge waters.

22.3.5 Dust and mud

(a) Excavation work poses a significant risk of dust and mud leaving the site in an uncontrolled manner via the effects of wind, surface water and vehicles on exposed surfaces. These impact both local amenity and the wider environment. Although excavation will always expose and disturb earth, considered planning and scheduling of land clearing and all stages of building works is the first step to minimising impacts. See 22.3.3 for details.

(b) Dust, mud and other materials (such as sand, soil and concrete) must be contained and managed on site and cannot be allowed to leave the site in an uncontrolled manner.

(c) You should plan the excavation and site operations to minimise any double-handling of materials to reduce dust.

(d) Exposed earth surfaces should be sprayed down as necessary using recycled water to prevent dust being created by site activity and wind action. Waste water must be suitably controlled and collected for processing.

(e) Any stockpiles of excavated material that must be stored for extended periods must be protected using secured covers, polymer stabilisers or similar, and have sediment traps installed downslope of the stockpile as necessary to prevent migration.

(f) For short-term storage of excavated material or for stockpiles in active use, spraying down using recycled water may be required when conditions could cause material to be removed by wind.

(g) Downstream stormwater pits must be protected from sediment using gravel sausages as a precautionary measure on all sites. See 12.10 for details.

(h) Your works plan should allow for the sealing and/or revegetation of areas of exposed earth as soon as practicable after localised excavation is complete to minimise erosion and sediment transport.

22.4 Excavation adjoining a road or public space

An excavation adjacent or in close proximity to the road (within 3 m horizontally or occurring within the calculated zone of influence) has the potential to cause subsidence or damage to infrastructure located in the road, whether above or below ground.

22.4.1 Additional approvals

If your excavation could affect the stability of any assets located in, above or beneath the road, the asset owner (for example, the utility, public transport provider or road authority) must be consulted and any required approvals obtained prior to work. See 22.2.1 for details.

22.4.2 Independent certification

(a) An excavation adjoining a road must have engineered specifications prepared by suitably qualified persons (for example, a suitably qualified geotechnical engineer and/or structural engineer).

(b) The engineered specifications in (a) above must be accompanied by a certified review of those specifications that has been provided by an independent, suitably qualified person who was not engaged to provide specifications for the project.

22.4.3 Proximity to a road

If any part of a road is located within the zone of influence of any proposed excavation, calculations for determination of safe slope and shoring methods must account for:

(a) geotechnical conditions (including soil types, planes of weakness and groundwater)

(b) possible surcharge loads (including live and dead loads). See 22.4.4 below for details

(c) the proximity of surcharge loads (considering the presence of temporary structures adjacent to the site, such as gantries, hoardings and scaffolding)

(d) shock and vibration forces generated by excavation work.

22.4.4 Surcharge loads

(a) All surcharge loads must be considered during the geotechnical and structural engineering assessment of planned excavation work.

(b) Vehicles, hoardings and counterweight systems, mobile plant, materials or excavated earth all add additional load to an area and must not be allowed within the calculated zone of influence of any excavation unless suitable ground support systems have been installed to engineered specifications.

(c) If a road exists within the zone of influence of an excavation, a surcharge of minimum 24 kPa must be applied unless suitable approved hoardings can prevent vehicular access adjacent to the excavation. In all other cases, a surcharge of 12 kPa will be applied.

(d) All shoring must also be checked for a vertical point load of 80 kN applied 300 mm from the edge of the excavation. This is to allow for heavy vehicles and gantry loads, and can be omitted if a hoarding or suitable barrier (that has itself been considered as a surcharge load component) prevents the application of other loads in this area.

22.4.5 Hoarding

You must install a hoarding or fence prior to any excavation to secure the excavation site and protect the public, in accordance with 22.2.4. See section 17 Precaution – Hoardings for more information.

22.4.6 Shoring

(a) Subject to the Building Regulations 2018, the relevant building surveyor is required to serve a protection work notice on the responsible road authority if any shoring measures (such as ground anchors) are proposed to protect the road or will intrude into the road beyond the street alignment.

(i) We are the responsible road authority for municipal roads within the municipality of Melbourne, and for parts of arterial roads that are not used by through traffic (for example, service roads, pathways and some roadside areas and median strips). In accordance with legislation, if the protection work relates to the road or a public place, we act as responsible authority or adjoining property owner as appropriate.

(ii) Proposed protection work requires the approval of our Municipal Building Surveyor.

(b) You will need our consent for works (road works) before installing any shoring measures (such as ground anchors or formwork) that are proposed to intrude into the road beyond the street alignment. See 22.5 Consent for works (road works) for more information.

(c) Shoring measures must consider local geotechnical conditions and the proximity and construction of adjacent structures. The shoring system must be designed and its performance monitored to ensure vertical or horizontal ground movement does not cause structural cracking in nearby buildings. See 22.4.7.

(d) Any excavated intrusion into the road must be a minimum 1500 mm below the finished road surface, to provide adequate clearance for the provision and maintenance of services located within the road. We may require you to increase this depth depending on the details of adjacent services or structures.

When excavating beneath the road, you must:

(i) undertake a proving survey to determine the location of nearby underground services

(ii) observe all minimum clearances from underground services as specified by the asset owner or relevant authority (see 22.2.2 for more information on underground and overhead assets)

(iii) ensure that any intrusions extend downward into the road at a minimum angle of 10 degrees from horizontal

(iv) fix any ground anchors to a point outside the zone of influence of the excavation.

(e) Except where permitted by the Building Regulations 2018, there must be no permanent intrusions into the road. At the satisfactory completion of permanent protection work (such as the completion of basement slabs to permanently support retaining walls):

(i) temporary intrusions into the road must be removed to avoid any future encumbrance on the road or public space (for example, posing an unnecessary obstruction to future works)

(ii) ground anchor tendons must be removed from the road and their cavities fully grouted

(iii) the road must be backfilled and reinstated to our engineering standards as required on completion of the permanent protection work.

(f) Prior to releasing any security held for your project (see 10.4.2 for more information on securities):

(i) you must provide written confirmation that all ground anchors located in public space have had their tendons removed and their voids fully grouted, accompanied by certification of physical inspection by an independent, suitably qualified person (such as a structural engineer)

(ii) we will inspect any required reinstatement work and confirm that work has been completed in accordance with our engineering standards and any conditions of our permit or consent.

22.4.7 Ground movement

(a) Deflection limits are required to ensure any assets in the road (such as water pipes of non-ductile iron) are not damaged by adjacent excavation. The geotechnical investigation of the subject site cannot be relied upon to predict conditions in the adjacent road, where a series of backfilling operations may have been undertaken over the years.

(b) To protect assets in the road, ground movement due to drying shrinkage of exposed excavation faces or deflections of the shoring system should be limited to the lesser of:

- $d/1000$ (where d = maximum depth in mm of earth retained for any stage of excavation) or
- 20 mm.

(c) Adjacent roads, assets and buildings should be periodically monitored for movement or damage throughout the course of work. Deflections of the shoring system should be limited in accordance with geotechnical and structural engineering recommendations to prevent damage to nearby property, infrastructure and assets.

(i) Locations of survey monitoring points must be shown on your site retention/excavation plan.

(ii) Monitoring points must be established based on geotechnical conditions and the sensitivity of nearby structures, at minimum 30 m centres at the top of the piers or piles to monitor ground movement.

(iii) Monitor readings must be taken fortnightly, and at least weekly if any vertical or horizontal movement of more than 6 mm is detected.

22.5 Consent for works (road works)

Work that takes place within the road (including excavation work) is subject to requirements set out in the Road Management Act 2004.

22.5.1 General considerations for works in the road

(a) You must have consent from the coordinating road authority before undertaking work in the road, unless you have an exemption under the Road Management Act 2004.

- We are the coordinating road authority for municipal roads.
- Department of Transport (DoT) is the authority for freeways and arterial roads (see 22.5.2 below).

(b) You can apply for our consent for works (road works) to conduct works on the road on our website. You will need to provide the following information:

(i) your contact details as the applicant and the contact details of the contractor responsible for the works

(ii) a detailed description of the works that covers:

- the type of works being undertaken
- the proposed start and completion dates
- the address of any property associated with the works.

(iii) a site plan of the work location to provide us with information on the extent of the proposed work. See our minor works site plan template and example of a minor works site plan.

(iv) a copy of your current Public Liability Insurance – Certificate of Currency

- Our specific requirements for Public Liability Insurance – Certificates of Currency are available on our website.

(v) a Traffic Management Plan showing all dimensions, obstructions and measures for managing the safety of road users around your site.

- Our example Traffic Management Plan is indicative of a suitable standard. See 15.9.1 for more information.

(vi) a copy of the notification letter you will send to all affected property occupiers. See 22.5.5 for more information on Stakeholder management.

- We've created a notification letter template for you to edit and submit.

(vii) a distribution map showing the properties where you will deliver this notification.

- We've created a distribution map template for you to edit and submit.

(c) Works in the road must comply with:

(i) the Road Management Act 2004

(ii) the Road Management (Works and infrastructure) Regulations 2015

(iii) Road Management Act 2004 – Code of Practice: Worksite Safety – Traffic Management

(iv) Road Management Act 2004 – Code of Practice - Management of Infrastructure in Road Reserves

(v) this Code

(vi) any conditions of permit or consent.

22.5.2 Additional approvals

(a) A memorandum of authorisation (MOA) from DoT is required for the implementation of any major traffic control devices (such as signals, signs and markings that place a significant and enforceable condition on the use of a road) on any public road (see 7.3 for more information).

(b) If work will take place in an arterial road, your traffic management plan must be submitted to DoT. DoT will determine the permitted working hours and conditions for works on arterial roads.

22.5.3 Hours of work

(a) You must not undertake works in the road outside the hours specified in our consent.

(b) Before you apply for consent, you should plan for your work to be limited to occur within our permitted hours. See 13.1 Permitted hours of building work for details.

(c) Depending on the location of the worksite and required traffic management measures, the permitted dates and times in our consent may be further restricted to minimise the impact on road users, nearby properties and other work or events in the surrounding area.

(d) Additional considerations include:

- localised morning and evening peak traffic flows
- retail, dining and entertainment precinct peak periods
- events
- Christmas retail activity during December.

See 15.6 Peak times for more information on patterns of peak road use.

22.5.4 Noise

Noise emanating from the works must comply with our Noise and Vibration Management Guidelines. See 14.3 Noise and vibration for more information.

22.5.5 Stakeholder management

Works taking place in the road can significantly impact local stakeholders such as residents, businesses, agencies, visitors and emergency services. Your engagement with stakeholders can reduce complaints by managing stakeholder expectations and allowing them to plan for temporary disruption.

(a) You should plan your works and design your Traffic Management Plan to maintain access to properties at all times. See 15.5 Maintaining access for more information.

(b) If your works will impact road users, occur after hours or impact residents, you must send written notification to all affected stakeholder agencies and individual property occupiers prior to works commencing. See 6.6 Notification for more information.

(c) An indicative list of stakeholder agencies is maintained on our website.

(d) You must display a public information notice at both ends of the site for the duration of works. This is to inform road users and other stakeholders of the nature, duration and hours of work and to provide contact details for public enquiries. See 6.6.5 for more information.

(e) You must respond to all complaints received regarding the works activity. Complainants must receive a response to their complaint within 72 hours of receipt.

22.5.6 Vehicles, plant, equipment and materials

All vehicles not actually engaged in works taking place in the road must be legally stopped or parked at all times. Plant, equipment and materials must be contained and operated within your approved worksite.

(a) Consent for works (road works) covers your use of the worksite as indicated in your site plan and associated TMP (this includes any approved closure of the footpath or roadway to facilitate your work). You may place and operate the necessary plant, equipment and materials within the worksite in accordance with the hours and conditions indicated in our consent.

(b) Road Rule 310 provides exemption for road workers from signed parking conditions only if it is impractical to park a vehicle legally. For example, if the vehicle is actually engaged in the works in progress (such as when a vehicle is being loaded or unloaded, or cables emerging from the ground are being joined using equipment fixed to the vehicle).

(c) Vehicles that are used to transport personnel or equipment to and from a worksite must be parked legally in accordance with parking signs. We recommend these vehicles be parked in off-road parking facilities when not required.

(d) If it is unavoidable for plant, equipment or materials that are not actively engaged in the works in progress to occupy space on the road nearby (such as in an adjoining street to where road works are taking place), any such occupation for remote storage on the road requires our approval and must be included in your site plan and associated TMP.

(e) You must not place any vehicles, plant, equipment or materials in signed 'No Stopping' areas unless the area is located within an approved road closure. This is to preserve lines of sight and swept paths for vehicles entering or exiting the roadway from adjoining streets, laneways or crossovers.

(f) See 15.7.6 for more information on parking for general traffic and works vehicles.

(g) If it is unavoidable for a vehicle involved in the works to travel over soft surfaces (such as mulch, grass, median or nature strips) protective bog mats must be used.

22.5.7 In-ground parking sensors

(a) We have in-ground parking sensors installed in many parking bays throughout the municipality. Approximate sensor locations will be shown on Dial Before You Dig information.

(b) You must contact us at least seven days prior to excavating in these areas so we can arrange to have the sensors removed for you.

(c) You must not interfere with parking sensors and you will be liable for any costs associated with their damage. You must contact us if your works require parking sensors to be removed or relocated. See 10.4.5 Relocation or temporary removal of assets in public space for more information.

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22.5.8 Installation, cover and clearance of services

(a) You must not allow more than 30 m of trench to be open at any one time.

(b) If installation will occur beneath the footpath, pedestrian ramps or vehicle crossings, excavation must be undertaken using trenchless excavation techniques wherever possible to minimise ground and surface disturbance.

(c) The minimum cover for underground services, and clearances between underground services (including drainage assets), must comply with specifications obtained from the relevant asset owner. See 22.2.2 for details.

(d) Installed classes of pipe or conduit must meet with relevant regulations and standards.

(e) Any installed pit, inspection opening or cover:

(i) should provide a minimum clearance of 1 m to any adjacent pit cover, tree, service cabinet or item of street furniture

(ii) must not exceed 2 sq.m in area

(iii) must not be installed within pedestrian access ramps at intersections, or within any area requiring tactile ground surface indicators

(iv) must be constructed using reinforced concrete or other approved material and fit for purpose.

(f) All pit covers must be suitable for highway class loading. Pit covers located within the roadway must be Class D type covers.

(g) Pit covers and surrounds must be constructed flush with the adjoining pavement surface, or flush with the soil surface of an adjoining grassed area, and:

(i) have a charcoal coloured finish, unless installed in concrete where colour should be matched to the surrounds. Colour must be blended through the material and not a surface render.

(ii) be inscribed with the asset owner's name and/or logo and purpose of the pit

(iii) have a non-slip surface.

(h) After work is complete, the relevant authorities are responsible for the ongoing management of their assets in the road.

22.5.9 Temporary surface covers

(a) If your excavation site (other than a deep excavation) must be reopened to the public prior to the conclusion of work, or prior to the reinstatement of the area, all excavated areas must be safely and durably covered to structural engineering specifications.

(b) Temporary surface covers must be safe and suitable for all use cases, and:

(i) suitably extended to prevent collapse of the cover in case of excavation edge failure

(ii) be affixed to the surface and not able to be dislodged by traffic during use

(iii) provide a smooth surface edge transition or ramp of maximum grade 1:8 for pedestrians and 1:20 for cyclists (in accordance with AS 1428.1)

(iv) provide a slip-resistant surface suitable for road users in all conditions

(v) be finished in a bright yellow colour to provide high luminance contrast with the surrounding surface

(vi) be removed from the site when not required and never stored on road surfaces.

22.5.10 Reinstatement and notice of completion

In accordance with the Road Management Act 2004, you must:

(a) Reinstate the work area to its prior condition after work is completed.

(i) If permanent reinstatement is not immediately possible, you must temporarily reinstate the area before your consent expires and the area is reopened to the public. You must make the area safe for use (for example, using hot mix asphalt to create a level footpath surface until permanent reinstatement is undertaken).

(ii) Within two months of temporary reinstatement you must complete permanent reinstatement of the area. You are expected to source materials and coordinate contractors as required to complete final reinstatement within this period (such as arranging the production, delivery and installation of sawn bluestone to reinstate a footpath).

(iii) If you are unable to permanently reinstate the area prior to the expiry date of our consent, you must apply to have our consent extended before you can re-occupy the area and carry out permanent reinstatement.

(iv) Your reinstatement must be completed to our satisfaction, in accordance with this Code (see 10.6.2 Reinstatement of our assets for details), our engineering standards and any conditions of consent. Detailed technical specifications for civil works are available with our engineering standards on our website.

(b) Notify us that work has been completed within seven days of completing permanent reinstatement of the area (unless you have a specific exemption under the Road Management Act 2004).

(i) Your notice should include:

- the consent reference number
- the location of the work
- a photograph of the reinstated area
- a description of the reinstatement work conducted.

(ii) Submit your notice via our website.

22.5.11 Inspection

After your work is complete, we will attend and inspect the location to determine whether reinstatement has been completed in accordance with the Road Management Act 2004, our engineering standards and any conditions of consent.

(a) If your reinstatement meets the above requirements, the warranty period in 22.5.12 below commences.

(b) If our inspection finds that reinstatement has not been completed or fails to meet requirements, we will notify you of the requirement to complete or rectify your reinstatement within two months, or more immediately if necessary.

(c) You are responsible for the cost of reinstatement (or the cost of rectifying your reinstatement work) if we must conduct reinstatement on your behalf.

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22.5.12 Warranty period

In accordance with the Road Management Act 2004, you are responsible for a defects liability period of 12 months following your permanent reinstatement of the works area. Your reinstatement must continue to meet our standards and not require our intervention for reasons of public safety and amenity (such as an area of reinstated footpath depressing and presenting a trip hazard for pedestrians) during this period.

(a) You must rectify any defects found within the 12 month period within two months of receiving written notification from us.

(b) You are responsible for the repair of your reinstatement work (or the cost of repair if we must repair the area on your behalf) during this period.

23. Vehicle crossings

Vehicle crossings connect your site to the road, providing vehicle access by 'crossing' the nature strip and/or the footpath. Properly-constructed temporary or permanent vehicle crossings are necessary throughout a project to manage heavy vehicle access, protect assets from damage and provide pedestrians with safe, uniform and level footpath surfaces.

Typically, existing crossings are unlikely to have sufficient bearing pressure capacity or dimensions to accommodate the safe movement of heavy vehicles. Overloading crossings or exceeding their turning capacity can cause safety issues for road users (such as trip hazards, restricted visibility and risk of collision) and damage to road and utility infrastructure, and street furniture.

In most cases you'll need to construct a temporary crossing at the start of your project, and remove any redundant crossings and construct a permanent crossing at the end of your project (this may be a condition of your planning permit).

We impose strict controls on the design and construction of vehicle crossings to ensure they are fit for purpose, follow our design standards and to manage impacts to assets (including public trees, utility infrastructure and street furniture), surface levels, stormwater flow and adjoining property.

23.1 Objectives

All vehicle crossings should:

- be properly designed and constructed
- accommodate all requirements for vehicle access and road safety
- protect surface and underground assets from damage
- maintain safe, uniform and level surfaces past worksites for all road users.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

23.2 General considerations

23.2.1 Any building works may require the construction of new (or the reconstruction of existing) crossings, footpaths, medians and roadways. The final scope of these civil works must be determined in consultation with us and undertaken in accordance with approved engineering design drawings and specifications.

23.2.2 Vehicles must only move between a public road and adjoining land (including a building site) via an approved, suitably designed and constructed vehicle crossing. This may be:

(a) a temporary vehicle crossing constructed in accordance with our engineering standards and specifications (required in most cases, see 23.3 below) or

(b) an existing crossing capable of withstanding loading from heavy vehicles (see 23.4 below).

23.2.3 Timber, steel plate or similar materials must not be installed as a temporary vehicle crossing or used as a way of access, as they create a trip hazard for pedestrians. They must not be used in place of, or to cover, an approved vehicle crossing.

23.2.4 Vehicle crossings (existing and proposed) must be clearly shown in your Construction Traffic Impact Assessment (CTIA). See 15.10.1 Preparing and submitting a Construction Traffic Impact Assessment (CTIA) for more information.

23.2.5 Permanent vehicle crossings should not be installed until your project is complete. They are not typically engineered to accommodate heavy vehicle loads so are likely to be damaged during building works. You are required to reconstruct a crossing if it shows signs of failure during your project.

23.2.6 Depending on the location and your proposed crossing type, multiple approvals may be required (see Table 23.1 below).

Table 23.1 - Vehicle crossing approvals

CROSSING WORKS	APPROVALS REQUIRED		
	Planning permit	DoT authorisation	Crossing permit‡
Install a new temporary crossing	N/A	YES† (on an arterial road)	YES
Modify an existing permanent crossing	YES* (on an arterial road or within a heritage overlay)	YES (on an arterial road)	YES
Install a new permanent crossing	YES* (on an arterial road or within a heritage overlay)	YES (on an arterial road)	YES

* We will refer your planning permit application to DoT for review and authorisation.
† You will need to apply directly to DoT for authorisation, and then supply this authorisation with your crossing permit application.
‡ A crossing permit includes our consent for works to excavate in the road for your crossing installation.

(a) You must have a permit to construct, modify or remove any vehicle crossing (permanently or temporarily) on a public road in the municipality. You will need to prepare:

(i) a dimensioned site plan, clearly showing:

- the location and dimensions of the proposed crossing
- all clearances from adjoining properties
- the location of all assets and infrastructure within and adjacent to the proposed crossing (such as public trees, stormwater pits, service pits, poles, cabinets, bollards and street furniture)
- details of existing parking conditions.

(ii) documentation of any third party approvals required (for example, if a service pit will need to be relocated to accommodate the crossing, you'll need to provide authorisation from the asset owner and document their specifications in your plans)

(iii) engineering design drawings (in accordance with our engineering standard drawings and specifications, highlighting any departure from our standard specification). These must include details of any proposed modification of the roadway level or stormwater assets.

(iv) a Traffic Management Plan (TMP) to be implemented during any work to construct, modify or remove the crossing (see 15.9.1 for information on preparing a TMP)

(v) a Tree Protection Plan (TPP, see 11.2.3 Tree Protection Plans and 23.2.7) if any of the proposed crossing works will take place within a Tree Protection Zone.

23.2.7 Public tree protection

In addition to all requirements outlined in 11 Public trees and green infrastructure, the following requirements also apply to crossings:

(a) Crossings should be located outside of Tree Protection Zones. If this is not possible, crossings on existing hard surfaces (asphalt) must:

(i) require no excavations for drop kerbing

(ii) be located outside of tree plots. If this is not possible, your Tree Protection Plan must identify suitable ground protection measures that are permeable and will minimise compaction.

(iii) minimise the level of canopy pruning.

(b) Crossings on existing grassed nature strips must:

(i) require no excavations

(ii) ensure suitable ground protection measures are used that are permeable and will minimise compaction.

(c) If a crossing (temporary or permanent) is proposed within a Tree Protection Zone, you must submit a Tree Protection Plan (see 11.2.2 Tree Protection Zones and 11.2.3 Tree Protection Plans) with your permit application that meets all requirements outlined in Section 11 and shows the proposed crossing in relation to the nearby public tree(s).

23.3 New vehicle crossings

23.3.1 Location

(a) Minimum clearances required between vehicle crossings and other road elements:

(i) 10 m to an intersection (excluding where a laneway is the intersecting road, see 23.3.2(c)(iv) below). We may require additional clearance depending on traffic requirements at the intersection (such as high traffic speeds or volumes, or limited lines of sight). Details are available on our engineering standard drawing 1P 50115.

(ii) outside the calculated Tree Protection Zone (TPZ) of any public tree. See 11.2.2 Tree Protection Zones for more information on calculating TPZ.

(iii) 5 m to any service cabinet.

(iv) 2500 mm to any hoarding or non-transparent part of a gantry (such as a skidboard).

(v) 1000 mm to any gantry column or scaffold standard.

(vi) 1000 mm to any of item street furniture (including poles). If this clearance cannot be achieved, street furniture may be able to be relocated with our approval (see 10.4.5 for more information on asset relocation). This will involve additional assessment and will take longer than our standard timeframes.

(vii) 1000 mm to adjoining property. Vehicle crossings located within 1000 mm of an adjoining property boundary will require the written approval of the adjoining property owner. This will not apply if a planning permit has already been issued for the crossing.

(b) Access to fire hydrants, utility pits and service covers must not be affected without the approval of the relevant authority or asset owner. The location and design of your proposed vehicle crossing must comply with any conditions of third party approval. See 7 Third party approvals for more information.

(c) If the location of a new crossing will require adjacent parking conditions to be changed (for example, for kerbside parking spaces and infrastructure to be removed) you will be responsible for all associated costs. These can include the cost of removal, relocation or installation of parking assets.

23.3.2 Design

(a) Your vehicle crossing design should follow our design standards. The standards include typical features of temporary and permanent crossing configurations and should be read in conjunction with our engineering standard drawings and specifications which provide construction details (see 23.3.3 below for construction requirements).

(b) Dimensions and specifications shown in our engineering standards are indicative only and may not meet your requirements for site access. If assessment by a structural engineer indicates that alternative specifications are required (for example, additional slab thickness or reinforcement), you may need to design your crossing to suit and submit your engineering drawings to us for consideration.

(c) Additional requirements for vehicle crossing design:

(i) Your design should match the existing levels of the roadway and footpath. If your access requirements include an alteration of roadway level, you must submit your engineering drawings with level information for our consideration. This requires additional assessment and will take longer than our standard timeframes.

(ii) Your design should consider the ground clearances, approach and departure angles of relevant vehicles to assess the possibility of scraping issues with the footpath or roadway.

(iii) Crossings wider than 7.6 m must include pedestrian refuges (kerbed islands located within the crossing to divide the crossing width and provide refuge from vehicles). Refuges must be at least 2000 mm wide and located not more than 7.6 m apart. See our engineering standard drawing 1P 50115 for details.

(iv) If your crossing is proposed adjacent to an intersecting laneway, where the combined width (for a pedestrian to walk across the laneway plus the crossing in a single movement) is more than 9 m, the crossing must allow for a minimum 2000 mm clearance to the laneway. This is to provide pedestrians with a place of refuge after crossing the laneway. See our engineering standard drawing 1P 50115 for details.

(v) If the proposed crossing overlays an existing service pit location, the pit must be relocated or modified with a Class D type cover to the satisfaction of the asset owner (see 22.2.2 for more information on working with in-ground assets) and be detailed on the plans we approve in your permit.

(vi) If you plan to install, modify or relocate any stormwater assets (such as grated pits or covers) you must provide detailed engineering drawings for our consideration. Junction pits must be modified with a Class D type cover to our satisfaction.

23.3.3 Construction

(a) Inspection

Once we have issued a permit, a number of inspections will be required to confirm construction is in accordance with approved plans, and with our engineering standards and specifications. More information on inspections and how to arrange an inspection of your worksite is available from our website.

(b) Vehicle crossings must be constructed in accordance with the engineering design drawings and specifications approved in your permit. Our engineering standard drawings and specifications provide construction and reinstatement details for crossings within the municipality.

(c) Temporary crossings must be constructed in concrete, in accordance with engineering standard drawing 1P 50108.

(d) Crossings must be engineered with sufficient bearing pressure capacity to accommodate the types of vehicle expected to access the site (for example, your temporary crossing may require additional slab thickness or reinforcement).

(e) You must not install, remove or relocate any parking infrastructure. If your approved vehicle crossing requires changes to nearby parking conditions, we will carry out this work.

(f) All assets and infrastructure located in, over or under the road that require relocation to accommodate your crossing must be addressed subject to the clearances, relocation and reinstatement requirements of the responsible authority or asset owner. See 10.2, 10.3 and 10.4.5 for more information on asset protection and reinstatement.

(g) Bluestone from existing kerb, channel and edging must be carefully salvaged, delivered to us for storage and recycled wherever possible. See 10.4.5(j) for more information on bluestone.

(h) When your project is complete, you are required to reinstate the area. See 23.6.1 for more information.

(i) The abutting property owner is responsible for the ongoing care and maintenance of the vehicle crossing after it has been constructed.

23.4 Existing vehicle crossings

23.4.1 Structural assessment

(a) If you propose to use an existing vehicle crossing during building works, you must first make a structural assessment of the bearing pressure capacity and dimensions of the crossing before it is used by heavy vehicles.

(i) You should consider the type and size of vehicles expected to access the site (including gross vehicle mass, swept paths, ground clearance and approach and departure angles).

(ii) If the existing crossing cannot accommodate the expected vehicles, you must construct a temporary crossing (see 23.3.3(c) for more information).

23.4.2 Modification

(a) You must have a permit if you plan to modify an existing vehicle crossing to make it fit for purpose during building works.

(b) Any modifications must be in accordance with the location and design requirements in 23.3.1 to 23.3.2 above and with our engineering standard drawings and specifications. In addition to these requirements, existing concrete must be tied to new concrete with minimum R16 rods, 300 mm long, placed centrally and 150 mm into the existing slab at 450 mm centres.

23.5 Use of vehicle crossings

23.5.1 During your building or works project

(a) Use of vehicle crossings located within public roads is subject to the requirements of the Road Safety Road Rules 2017. The Road Rules apply to all vehicles, regardless of who owns the property serviced by the vehicle crossing. For example, vehicles must not park on, across or in any way obstruct access to a crossing.

(b) Loading and unloading of vehicles must take place on site, or within a designated Construction Permit Zone or parking area with suitable traffic management measures in place to ensure the safety of all road users. See 15.7.6(b) Construction Permit Zones for more information.

(c) Traffic controllers should supervise the movement of all vehicles entering and exiting the site, to manage conflicts and ensure the safety of other road users. See 15.8.2 Traffic controllers for information on our requirements for blocking and holding traffic.

(d) Deployable gates or barriers and traffic light systems should be implemented to supplement traffic controllers in warning and preventing other road users from entering vehicle crossings during heavy vehicle movements. See 17.4.4 Personnel and vehicle access gates for more information.

(e) We strongly recommend blind spot and rear camera systems are fitted to all heavy vehicles using site crossings.

(f) You must prevent dust and mud being transported from the site into the road. Where installed, measures to capture dust and mud such as rumble grids and vehicle wash down areas must be located within the site at least 10 m in advance of vehicle crossings to prevent footpaths or crossings becoming dirty. See 12.11 Vehicles accessing the site for more information and guidance.

(g) You are responsible for the maintenance of any vehicle crossing used during building works to ensure the safety of road users and the protection of assets.

(h) If a crossing is damaged or shows signs of structural failure during building works (such as fracturing or depression of the surface, or loss of flush finish with the footpath, nature strip, channel or roadway), you must reconstruct it immediately to suitable specifications.

23.6 At the end of your project

23.6.1 Reinstatement

You may be required to construct new or reconstruct existing crossings, footpaths, medians and roadways at the end of your project. The construction of a permanent crossing should occur during these works.

23.6.2 When your project is complete:

(a) all temporary vehicle crossings must be removed

(b) any modified, removed or relocated municipal assets must be reinstated in accordance with the conditions of our permit (see 10.6.2 Reinstatement of our assets for more information)

(c) permanent vehicle crossings must be constructed in accordance with any conditions of your planning permit and approved engineering design drawings.

23.6.3 Construction of permanent crossings

In addition to the requirements listed in items 23.3.1 to 23.3.2, permanent vehicle crossing construction must:

(a) be constructed with bluestone edging on both sides if located on main roads leading to the central city, or in heritage overlay and conservation areas

(b) have finished surfaces matching the material of the adjoining footpath, unless the footpath is constructed in sawn bluestone when asphalt must be used

(c) use kerbstones, gutterstones and pitchers to match existing stone dimensions and quality. If you have previously salvaged and stored bluestone elements from the work area (see 23.3.3(g) for our requirements), these must be recycled subject to our approval. Recycled bluestone must match our current standards.

24. Temporary pedestrian crossings

If your proposal for long-term works activity will be unable to meet objectives in 15.7 Managing pedestrians, cyclists and vehicles to keep footpaths open to the public, redirection of pedestrians across the road may require the installation of a temporary pedestrian crossing (such as a mid-block zebra crossing).

We impose strict controls on the siting, design and construction of temporary pedestrian crossings to ensure they meet the relevant standards for road safety and pedestrian accessibility as well as our engineering standards and specifications for road infrastructure.

Changes to road infrastructure at temporary pedestrian crossings can cause safety issues for road users and impact stormwater management in the road. At a crossing point:

- change to the road level can cause problems with water runoff and stormwater flow and may require the installation of a new drainage system
- change to existing kerb and channel can impact stormwater flow and discharge points, and may require the installation or relocation of stormwater pipes and pits.

Temporary pedestrian crossings must meet the requirements listed below.

24.1 Objectives

All temporary pedestrian crossings should:

- provide clear, safe, accessible, well-lit, standardised crossing facilities
- ensure suitable surfaces and grades for all pedestrians in all conditions
- maintain the alignment and surface of adjacent bicycle and roadway lanes
- ensure stormwater is appropriately managed.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

You must have a considered traffic management strategy when applying for our approval, permit or consent to conduct any works activity in public space, to ensure the safety and amenity of all road users. You should read this section in conjunction with section 15 Traffic management to be aware of our detailed requirements.

24.2 General considerations

24.2.1 Any proposal to install a temporary pedestrian crossing as part of a long-term pedestrian redirection must be detailed in your approved Construction Traffic Impact Assessment (see 15.10.1 for more information).

24.2.2 You must have a memorandum of authorisation (MoA) from the DoT before we can issue a permit for you to install a temporary pedestrian crossing (considered a major traffic control device). You will need to prepare:

(a) a signage and line marking plan in accordance with AS 1742.10 and TEM Volume 2, Part 2.10 Pedestrian control and protection

(b) a lux diagram as evidence lighting will meet AS/NZS 1158.4. More information is available from the DoT Traffic Engineering Manual Volume 3, Part 2.02.

More information on obtaining a MoA is available from the Department of Transport.

24.2.3 You must obtain our consent for works (road works) before you construct, modify or remove a temporary pedestrian crossing on a public road in the municipality. You will need to prepare:

(a) a dimensioned site plan (clearly showing the location and dimensions of the proposed crossing, all clearances from road infrastructure and access points to adjoining properties, and details of existing parking conditions)

(b) documentation of any third party approvals that are required (such as a DoT MoA or the authorisation and specifications of the asset owner if a service pit will require relocation or modification to accommodate the crossing)

(c) engineering design drawings (in accordance with relevant Australian Standards and our engineering standards and specifications)

(d) a Traffic Management Plan (TMP) to be implemented while the crossing is being constructed (see 15.9.1 for information on preparing a TMP).

You can apply for consent for works (road works) on our website.

24.3 Location, design and construction

24.3.1 Location

(a) The location of any temporary pedestrian crossing should:

- provide for pedestrians to cross the road while minimising safety risks
- minimise any additional journey time and delay for pedestrians that are being redirected past the worksite.

(b) You must ensure lines of sight are maintained between pedestrians accessing the crossing and other road users. Motorists and cyclists must have sufficient sight distance after noticing the crossing to enable them to stop safely in response to a pedestrian on or about to enter the crossing.

(c) You should also consider the provision of a traffic controller (particularly during peak times) to provide assistance to pedestrians of varying mobility levels who are being redirected across the roadway. See 15.8.2 for more information.

24.3.2 Public tree protection

In addition to all requirements outlined in 11 Public trees and green infrastructure, the following requirements also apply to temporary pedestrian crossings:

(a) Temporary pedestrian crossings should be located outside of Tree Protection Zones. If this is not possible, construction of crossings on existing hard surfaces (asphalt) must:

(i) require no excavations for drop kerbing

(ii) be located outside of tree plots. If this is not possible, your Tree Protection Plan must identify suitable ground protection measures that are permeable and will minimise compaction

(iii) minimise the level of canopy pruning.

(b) Construction of crossings through existing grassed nature strips must:

(i) require no excavations

(ii) ensure suitable ground protection measures are used that are permeable and will minimise compaction.

(c) If a temporary pedestrian crossing is proposed to be constructed within a Tree Protection Zone, you must submit a Tree Protection Plan (see 11.2.2 Tree Protection Zones and 11.2.3 Tree Protection Plans) with your permit application that meets all requirements outlined in Section 11 and shows the proposed crossing in relation to the nearby public tree(s).

24.3.3 Design

(a) Temporary pedestrian crossings must conform to AS 1742.10 and Traffic Engineering Manual Volume 2 Part 210 (supplement to AS 1742.10).

(b) Crossing distance should be minimised wherever possible to limit the time pedestrians will spend on the roadway and minimise the distance to the nearest point of refuge. This can be achieved by extending the kerb out onto the roadway parallel with adjacent kerbside parking bays.

(c) Lighting of pedestrian crossings must meet AS/NZS 1158.4. If existing lighting is not sufficient to meet this standard, you must arrange the design and installation of additional lighting prior to the pedestrian crossing being opened to the public. See 16.6.1 Lighting design for our requirements.

24.3.4 Construction

(a) Temporary pedestrian crossings must be constructed in accordance with our engineering standard drawings 1P 50202 (without kerb extension) or 1P 50203 (with kerb extension) and specifications.

(b) You must not install, remove or relocate any parking assets. If your approved temporary pedestrian crossing requires changes to nearby parking conditions, we will carry out this work prior to the crossing being opened to the public.

(c) Ramps at temporary pedestrian crossings must be constructed in concrete as indicated in our engineering standard drawings 1P 50202 and 1P 50203.

(d) Tactile Ground Surface Indicators (TGSIs) must be installed to provide directional orientation and warning at temporary pedestrian crossings. TGSIs:

(i) must be installed in accordance with AS/NZS 1428.4.1, manufacturers specification and as indicated in our engineering standard drawings 1P 50202 and 1P 50203.

(ii) on ramps must be located 300 mm from the kerb face and align with TGSIs on the corresponding ramp on the opposite side of the roadway

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(e) Signage (other than parking signage, see (b) above) must be installed in accordance with the DoT MoA and supporting plans.

(f) You must not construct any lip at the drainage channel or kerb line to ensure smooth, unimpeded wheelchair movement over the surface.

(g) Surface grades should be designed to avoid low points where water can accumulate.

24.4 Removal and reinstatement

24.4.1 When your project is complete:

(a) you must remove all temporary pedestrian crossings and reinstate the area before you reopen footpaths to pedestrians. See 10.6.2 for more information on the reinstatement process.

(b) you must have our consent for works (road works) prior to removing a temporary pedestrian crossing and reinstating the area. See 22.5 for more information.

25. Skips, bins and containers

Skips, bins, containers and the like (collectively referred to as 'skips', including those with wheels affixed) should be placed and used on your site within private property boundaries, wherever possible. You are responsible for all skips at your site.

Where site constraints require a skip to be placed on a road (including a private road that is open to and can be accessed by the public), you must meet the requirements listed below.

25.1 Objectives

Before being placed on a road, all skips must:

- have a skip permit if placed outside a Construction Permit Zone (see 25.2.3 below)
- comply with all standard conditions of a skip permit (including permitted hours of delivery and collection)
- not obstruct any road user or impede the visibility of the road or ways of access
- be highly visible, readily identifiable and maintained in a clean condition
- be of rigid construction, free of catch points and not overfilled.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

25.2 General considerations

25.2.1 You must have a skip permit before placing a skip on a road.

25.2.2 Skips should be placed in accordance with permit conditions, immediately adjacent to a frontage of the site where they are being used, to minimise any impact on other properties.

(a) If this is not possible (for example, if there is no available parking adjacent to the site) you must place the skip in the nearest permissible on-road parking location to the site, giving consideration to:

- the amenity of nearby outdoor cafés, other businesses and residents
- maintaining clear access to fire hydrants and fire plugs.

25.2.3 Within a Construction Permit Zone you do not require a permit to place a skip on the road, provided:

(a) you have the express permission of the Construction Parking permit holder

(b) the skip remains wholly within the parking area defined by 'Permit Zone, Construction Vehicles' signs and does not encroach on any other area (including adjacent parking areas, roadway or bicycle lanes)

(c) the skip does not stand on the road outside the days and times indicated on the 'Permit Zone, Construction Vehicles' signs

(d) you comply with all standard conditions that apply to skip permits (including the permitted hours of delivery and collection), as available on our website. Standard conditions are subject to change from time to time so make sure you keep up to date.

25.2.4 If a skip will stand on the road in a Construction Permit Zone outside the days and times indicated on the 'Permit Zone, Construction Vehicles' signs (for example, the skip will stand overnight where the sign end time is 6.30pm), you must have a skip permit.

25.2.5 Skips must not impede any way of access between the road and adjoining land (for example, crossings, driveways, footpaths, gates and doors) including ways of access to the construction site, or impede the visibility of these areas for road users.

25.2.6 Vehicles transporting skips are subject to all requirements of the Road Safety Act 1986 and Road Safety Road Rules 2017, including while placing or removing the skip. Delivery drivers must be made aware of the need to place skips in accordance with:

(a) this Code

(b) any permit conditions

(c) local parking conditions

(d) our Activities Local Law 2019.

25.2.7 Skips must only be placed or removed between the hours indicated on our skip permit standard conditions (available on our website), to minimise the impact of noise on nearby properties.

(a) We do not support the placement or removal of skips outside these hours due to noise considerations. If site constraints require skips to be placed or removed outside these times, you will require a skip permit with additional permission and need to justify why the above time limits cannot be met. These permissions are separately assessed and will take longer than our standard timeframes (see 13.2 for more information on our position on out of hours activity).

(b) Where possible, you should avoid peak traffic times to minimise local area traffic impact (see 15.6 Peak times for more information).

25.2.8 You must not open a skip into adjacent public space without a permit to occupy that space. For example, 'walk-in'-type skips with doors, drop-panels or swing-panels may require the occupation of additional public space beyond the footprint of the closed skip.

(a) Any additional space required to open a skip, or to keep clear for the loading or unloading of a skip (such as an adjacent parking bay) must be included in a skip permit application.

(b) A skip must not encroach on any bicycle lane or bicycle detour.

25.2.9 If location constraints require a skip to be placed in a centre-of-road parking area, you will also require temporary traffic management measures to allow for the safe transport of materials across any active traffic lane (including bicycle lanes or bicycle detours).

25.3 Public tree protection

25.3.1 In addition to all requirements outlined in 11 Public trees and green infrastructure, the following requirements also apply to skips:

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(a) Skips must be positioned to minimise impacts on public trees and avoid the need for pruning. Use of the skip (including its delivery, operation and retrieval) must not impact on or contact any part of a public tree or tree plot. This includes swing doors, drop panels and swing panels on a skip, or where a public tree is likely to be in the path of material being loaded into a skip.

(b) Skips must not be placed within a Tree Protection Zone, with the following exception:

  (i) A skip can only be positioned on existing sealed surfaces within a Tree Protection Zone (such as the roadway), provided its placement, use and collection will not impact on the tree canopy or be in contact with any part of a tree or tree plot. This scenario would not require a Tree Protection Plan.

(c) If your skip will be placed anywhere else within a Tree Protection Zone, you must submit a Tree Protection Plan (see 11.2.2 Tree Protection Zones and 11.2.3 Tree Protection Plans) with your skip permit application that meets all requirements outlined in Section 11 and shows the proposed skip in relation to the nearby public tree(s).

26. Rubbish chutes

Construction rubbish chutes (chutes) should be installed and used on site, within private property boundaries, wherever possible.

Where site constraints require a chute to be used on or above the road, an overhead protection structure must be in place to ensure the safety of pedestrians on the footpath. We do not support the installation or use of chutes over the road or footpath in the central city due to high pedestrian and traffic volumes.

The use of construction rubbish chutes must meet the requirements listed below.

You should ensure that your project and works plans comply with this Code. Only if you can clearly demonstrate construction or site constraints will we consider alternative designs or proposals that meet our objectives. Alternative site-specific designs or proposals will require additional documentation and assessment. This will typically involve multiple teams within the City of Melbourne and take longer than our standard timeframes.

26.1 General considerations

26.1.1 Chutes and their use must comply with Worksafe Victoria's Compliance Code: Demolition.

26.1.2 Chutes should only be used for the transport of small or broken down materials, rubbish or debris.

26.2 Design, assembly and use

26.2.1 Chutes must be of sturdy construction, assembly and support.

(a) Chutes must be constructed of a durable, fire-resistant, rigid or semi-rigid material to eliminate the risk of breakage or perforation. Fabric is not permitted.

(b) Chutes must be secured to a building, scaffold or gantry:

(i) at the top of the chute

(ii) at any change of direction

(iii) at any interval specified by the chute manufacturer.

(c) Chutes must be completely enclosed apart from infeed and discharge openings.

(d) The chute assembly must prevent the spillage of material, the emission of dust, and should minimise the noise from falling debris (see 14.3 Noise and vibration for additional guidance on noise). Dust covers should be fitted at infill openings and chute joints as required.

(e) Discharge should be via a single exit point only. Infeed openings should be designed to prevent the discharge of any materials, including dust, via an infeed opening.

(f) Openings must be designed and able to be secured to ensure:

- a person is prevented from falling into the chute
- infeed and discharge of materials or objects can be prevented after hours

- discharge can be controlled to occur only when a suitable container is in place and the drop zone is made safe.

26.2.2 Chutes must only be discharged into a suitable container (for example, a skip or enclosed-side truck) and not into uncontrolled space.

26.2.3 Containers must be positioned directly beneath the fixed discharge opening of the chute.

26.2.4 Containers must be covered by durable, closed fabric (for example, canvas or tarpaulin) to enclose the space between the discharge opening and the container, preventing overflow and reducing the emission of noise and dust from the container.

26.2.5 Where site constraints require a chute to be discharged into a container located in the road, this must be indicated in your Construction Management Plan (see 15.10.1 Preparing and submitting a Construction Traffic Impact Assessment (CTIA) for more information).

(a) chutes must not be used above a footpath unless the chute assembly is properly supported and an overhead protection structure (such as a gantry) is in place for pedestrian safety (see 18 Precaution – Gantries for more information on gantries)

(b) chutes must only be discharged into a suitable container (see 25 Skips, bins and containers) located within a designated Construction Permit Zone (see 15.7.6(b) for more information on Construction Permit Zones)

26.2.6 Containers must be covered by durable, closed fabric (for example, canvas or tarpaulin) to enclose the space between the discharge opening and the container, preventing overflow and reducing the emission of noise and dust from the container.

26.3 Public tree protection

26.3.1 In addition to all requirements outlined in 11 Public trees and green infrastructure, the following requirements also apply to rubbish chutes:

(a) If your chute will be placed within a Tree Protection Zone, you must submit a Tree Protection Plan (see 11.2.2 Tree Protection Zones and 11.2.3 Tree Protection Plans) with your permit application. The plan must meet all requirements outlined in section 11 and show the proposed chute in relation to the nearby public tree(s).

(b) Chutes must be positioned to minimise impacts on public trees and avoid the need for pruning. Use of the chute (including its assembly, discharge into a container and dismantling), must not impact or come into contact with any part of a public tree or tree plot.

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