



Auckland Transport Code of Practice

Chapter 6
**Street
Amenities**

6 Street Amenities

6.1 Street Amenities in the Road Corridor Guidelines

It is essential that [AT's Street Amenities in the Road Corridor Guidelines](#) (PDF 83KB) are read before reading the rest of this chapter.

6.1.1 Introduction

This section introduces, defines and explains the range of streetscape components that influence the use, look and feel of the street for all users.

- Lighting
- Outdoor Dining (e.g. tables, chairs and structures)
- Play space
- Public Art
- Street Furniture
- Surface treatments (e.g. asphalt, stone, paving, raised tables)
- Trees and planting

6.1.2 Lighting

Lighting plays an important role in providing for the safety and security of all street users at night. The placement and appearance of lighting fixtures can have a big impact on the use and enjoyment of the street.

6.1.3 Outdoor Dining

Outdoor dining brings life and activity onto the street. It can help maintain and enhance the vitality and viability of potential of town centres.

The provision and placement of outdoor dining should not reduce pedestrian through-movement or safety and should prevent the privatisation of public space.

6.1.4 Play Space

Free space for social interaction, games areas, play grounds, sports, outdoor chess, informal stage platforms - space that doesn't entail exchange of money - is required to take part in public life.

6.1.5 Public Art

Public Art can play an important role in responding to context and celebrating and fostering a sense of identity in local places.

6.1.6 Street Furniture

Street furniture is the collective name given to the manufactured vertical elements within the streetscape e.g. bins, seats, lamp posts, signs- including traffic and parking signs, bus stops

and so forth, Well considered, designed and well placed street furniture is an essential component of good quality streets.

6.1.7 Surface Treatments

Ground Surface Treatments of the footpath and carriageway make a big contribution to the look and feel of the streetscape and its use and enjoyment by pedestrians, cyclists, motorists and adjacent businesses.

Different surface treatments, from asphalt and concrete to high quality natural stone paving have a place on Auckland's streets.

6.1.8 Trees and Planting

The provision of street trees and other planting in the public realm (along our streets, roads and lanes) is deemed a valuable streetscape element in appropriate locations.

6.2 Street Types

6.2.1 Introduction

Good street design begins with an understanding of street context. Different streets have different conditions, and merit differing design responses. Conditions along longer streets (e.g arterial routes) often vary along the length of the street; e.g. a single street may pass through residential, commercial and light industrial areas, a town centre and a number of local neighbourhood centres.

In order to achieve Auckland Transport's urban design principles, it is important to recognise the combination of the street's movement and place-making roles, together with the character and functional requirements of the surrounding land uses and built form. It is the combination of all of these factors that determine the streetscape character of a street. Across Auckland these factors result in a high diversity of places, many with distinctive character. These variations in streetscape character are more complex than traditional road hierarchy classifications, and need to be understood and recognised when designing and operating the network.

Whilst common design principles, as described in *ATCOP Chapter 2* should be applied across the street network, it is important to translate these to respond to local conditions.

6.2.2 References

ATCOP Chapter 4 Road Classification (especially Table 3)

ATCOP Chapter 2 Section 2.5.2 Corridor Management Plans

[Ministry of the Environment research and analysis tools.](#)

6.3 Pulling it Together - Spatial Arrangement

6.3.1 Introduction

This section provides guidance on aspects of spatial layout which must be addressed as part of all road and streetscape design.

The spatial layout and design of each street will vary according to the street's specific functional requirements, the amount of cross-sectional streetscape area available for pedestrian and vehicular use and budgetary constraints.

Space within the street will be allocated to respond to the site-specific requirements of each street, and street furniture, vegetation, lighting, structures and signage will be designed and located to prevent physical and visual clutter while catering for functional requirements.

The geometry and design of the carriageway including its total width and number of lanes, as well as the widths of individual lanes, medians (where present), provision for pedestrian crossings, as well as the geometry and design of the carriageway at intersections, has a large bearing on the overall streetscape amenity and its use, look and feel for pedestrians. Design teams need to consider this when establishing overall street geometry for new streets or considering the re-allocation of space within existing streets.

Design of the carriageway is covered in *ATCOP Chapter 7 Road Layout and Geometric Design*.

Design information on pedestrian crossings, medians and other threshold treatments is included in *ATCOP Chapter 12 Footpaths and Pedestrian Facilities*.

6.3.2 Footpath Spatial Zones

Streets should be designed to be legible (self-explaining), safe and comfortable for all users, minimising the requirement for the use of signage, bollards, guardrails, and other elements that clutter the streetscape environment.

The consistent use of footpath spatial zones is a key organising element in pulling all of these principles together and applying them as good streetscapes on the ground. These zones are:

- Frontage Zone
- Through Route
- Street Furniture Zone
- Kerbside Berm Zone
- Kerb Zone



Figure 29: Streetscape Elements

These terms are used throughout the rest of this chapter with respect to the placement of streetscape elements.

This section includes information on each of these spatial zones between the property boundary and the kerb.

The importance of the pedestrian rough route

All streets will have a pedestrian through route. Not all streets will have all of the other zones, for instance on narrower streets the Frontage Zone, Street Furniture Zone (or Kerbside Berm Zone on suburban and rural streets) may not be present.

The through route must always be provided and kept clear of obstacles (except over short periods for maintenance/repair). There is a need for flexibility in the application of the other zones. For instance, in many situations it will be preferable to keep the frontage zone entirely clear as a part of or an extension of the through route; this is particularly helpful for people with vision impairments who can use the building edge as a guide. In other instances, the Frontage Zone can be designed to accommodate street furniture and activities such as

outdoor dining and street trading, as long as these are designed in a consistent and orderly manner making it safe and convenient for people with vision and mobility impairments. This includes ensuring that no permanent or removable street furniture, signage or other elements intrude into the through route. In some situations the location of certain structures on the footpath and adjacent to the building edge may be unavoidable (e.g. traffic signal control boxes, lighting control boxes). In these cases it is preferable to locate these structures within the building facade and building line recesses or to ensure that a 1.8m minimum width through route, measured from the front face of the structure or infrastructure boxes, is provided.

The dimensions for each spatial zone are meant as a general guide within the overall width between the property boundary and the kerb face. Appropriate widths for each spatial zone vary based on numerous conditions such as pedestrian volumes, adjacent land uses, presence of driveways etc. Dimensions include the width of the kerb itself.

The use of spatial zones also varies according to context, but generally falls into two types - categorised as urban and suburban spatial arrangements in this document.

Urban footpath spatial arrangements are used on streets where the hard surface of the footpath generally runs the full width between the property boundary and the kerb face. In most instances buildings on urban streets either front directly on or have small setbacks from the property line.

Suburban footpath spatial arrangements are used on streets where the footpath is lined by grass berms on one or both sides i.e. kerbside or along the property frontage, or both. This treatment is not restricted to residential areas, but is also typical of suburban industrial and some commercial areas.

Rural roads often do not have kerbs or footpaths.

6.3.3 Sample Street Cross-Sections

Typical spatial arrangements for both urban and suburban areas are outlined in the sample street cross-sections that follow.

The cross-sections illustrate how the principles and guidance for streetscape amenity can be applied in both urban and suburban contexts and for different types of streets (local streets and arterial routes).

The images are illustrative of the principles rather than literal depictions of street designs and are not intended to be used as detailed design guidance or standards.



Figure 30: Typical Spatial Arrangement - Urban Arterial Street with Frontage Zone

KEY ATTRIBUTES

- Through Route kept clear of all obstructions
- Frontage Zone against building edge
- Consistent footpath widths
- Consistent and uncluttered arrangement of Street Furniture Zone
- Kerb Zone (the diagram erroneously shows the channel to be included in the kerb zone rather than starting it from the kerb face - to be amended) No median that narrows the carriageway and slows traffic
- Buses stop in outside lane (no indented bus bays)
- Good lighting
- Suitable plantings and trees

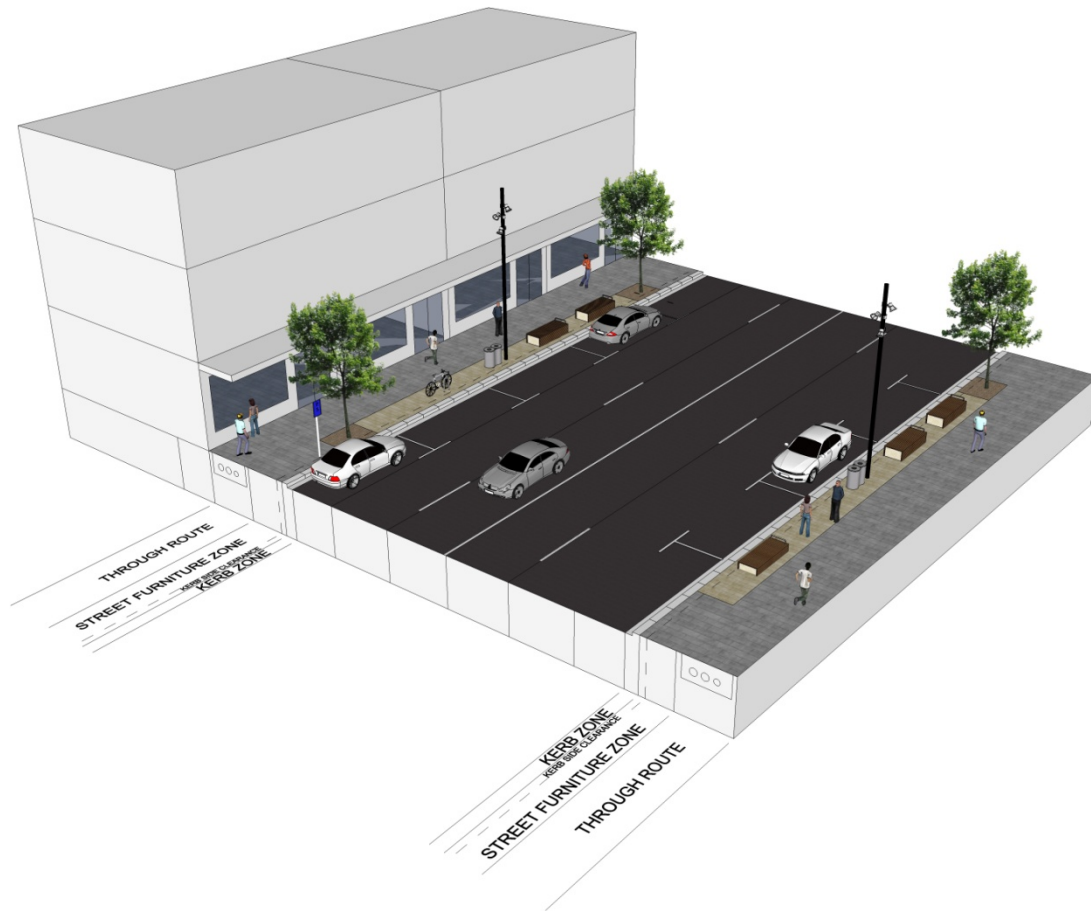


Figure 31: Typical Spatial Arrangement - Urban Arterial Street without Frontage Zone

KEY ATTRIBUTES

- Through Route against building edge to optimise universal accessibility
- No Frontage Zone (kept clear of all obstructions as part of Through Route)
- All other attributes are the same as the Urban Arterial Street with Frontage Zone



Figure 32: Typical Spatial Arrangement - Suburban Local Street

KEY ATTRIBUTES

- Footpath minimum width of 1.8m
- Flexible provision of berms with footpath (Through Route) flanked by both Frontage and Roadside Berms (left side) or against the property boundary with Roadside Berm only (Right side)
- Roadside Berm at least 1.5m wide to accommodate street trees
- Street Trees under planted to reduce maintenance burden and improve water retention
- Underground services located under footpath to avoid conflict with street trees
- Berms can be planted where arrangements for future maintenance is agreed
- Footpath continuity maintained across vehicle crossings
- Lane widths minimised to emphasise local street nature and encourage slow speeds
- Minimal road markings to slow traffic and avoid visual clutter



Figure 33: Alternate Spatial Arrangement - Suburban Local Street

KEY ATTRIBUTES

- Alternate arrangement to reduce land take/street width and increase streetscape amenity
- Footpath minimum width of 1.8m
- Footpath (Through Route) against the property boundary with Roadside Berm only
- Roadside berm alternates with on-street parking to reduce land take/street width
- Roadside Berm at least 1.5m wide to accommodate street trees with under planting for street greening and low impact design solutions
- Underground services located under footpath to avoid conflict with street trees
- Footpath continuity maintained across vehicle crossings
- Carriageway width minimised with no lane markings to emphasis local street nature, encourage slow speeds and avoid visual clutter
- Street trees and low understorey planting

Additional road diagrams are being developed e.g. rural context.



Frontage Zone

The frontage zone is the area alongside the property boundary. On an urban street it is usually defined by the building frontage and on a suburban street by fences, hedges, or planted areas.

Not all streets, particularly narrower streets, will have a frontage zone. It should only be provided where at least the minimum Through Route width can be provided.

Where present on urban streets, the frontage zone will be part of the hard surface pavement of the footpath. It can be used for different activities where these do not impinge on the Through Route which must be kept clear of obstacles. Examples include street trading licences for outdoor displays or outdoor dining, subject to the permits required under the Street Trading Bylaw. Within town centres, design teams need to carefully consider the desirability of providing for these activities within the Frontage Zone as opposed to the need to keep it clear as an extension of the Through Route.

Where present on suburban streets, the Frontage Zone is typically a grass berm. In many suburban streets, the Frontage Zone may not exist, with the footpath directly abutting the property boundary, but its provision is desirable.

Through Route

The through route is the area dedicated to pedestrian movement along the street. It must maintain minimum widths and be kept clear of all obstacles.

In urban streets, the Through Route may be located against the building line, or offset beside or centred between a Frontage Zone and Street Furniture Zone (where present). On narrow urban streets, the Through Route may of necessity occupy the whole width between the building line and the kerb. To promote universal accessibility it is advantageous to locate it adjacent to building edge where possible, as audible/tactile cues presented by the building edge are used to aid navigation by vision impaired users. A lack of obstruction at the building edge also encourages window shopping and potentially increased retail activity.

On suburban streets the Through Route is typically the full extent of the footpath. Depending on the street arrangement and available space, it may be located against the kerb or property line or centrally located depending on the inclusion of grass berms within the frontage and kerbside berm zones or both.

The core requirements for the Through Route include the following:

- To allow accessible and unobstructed movement by pedestrians along the street of a minimum clear width of 1.8m (with additional width allowance in highly pedestrianized areas such as town centres).
- To be kept clear of permanent (e.g. street furniture) and temporary obstructions (e.g. sandwich boards, outward-opening doors and windows)

The detailed design and construction of driveways should always give precedence to the footpath's Through Route, which should be clear of any aprons or other changes to cross-fall. Refer to *ATCOP Section 7.8 Vehicle Crossings* for further requirements.

The Through Route is the preferred zone for locating underground utilities, to keep the Street Furniture or Kerbside Berm zones clear for street trees.

Street corners (as defined by an extension of the property line to the kerb) should be considered part of the Through Route and kept clear of obstructions. Streetscape elements should generally be clustered adjacent to corners within the street furniture zone but kept clear of the corner itself. The following streetscape elements are appropriate for corners:

- Corners should include pram crossings/dropped kerbs and tactile indicators as per *ATCOP Chapter 12 Footpaths and Pedestrian Facilities*
- Traffic signals and street lighting columns, where it is not possible to locate these clear of the corner

Street Furniture Zone

The Street Furniture Zone is a spatial zone between the Through Route and the Kerb Zone, dedicated to the placement of streetscape elements including street trees and planting, lighting, street furniture and signage. It is generally only present on urban streets, being replaced by the Kerbside Berm Zone on suburban streets.

The Street Furniture Zone provides space for the consistent placement of all streetscape elements thereby keeping the Through Route clear of obstacles and clutter. The Street Furniture Zone also acts as a buffer between pedestrian movement on the Through Route and vehicular traffic on the carriageway.

The width of the Street Furniture Zone is variable and will determine the type of streetscape elements able to be incorporated as indicated below:

- <500mm Wide: Allows location of street lighting columns, parking meters and statutory traffic signage (where not affixed to lighting columns)
- 500 – 1000mm Wide: Allows location of the above plus pedestrian signage, traffic signal/lighting control panel boxes, seating (parallel to kerb), trees, rubbish bins
- 1000 – 1600mm Wide: Allows location of the above plus telephone boxes, cycle racks (parallel to kerb), trees and other planting (including WSD features).
- >1600 mm Wide: Allows location of the above plus cycle racks (90° to kerb), seating (90° to kerb), larger trees, bus shelters and kerbside street trading zone

The Street Furniture Zone may overlap with the carriageway where kerb indentations or extensions/build-outs are used for the provision of additional public space, bus stops or parking/loading.



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Kerbside Berm Zone

A grassed Kerbside Berm Zone is an alternative to, and typically takes the place of, the Street Furniture Zone in suburban streets. It is an established part of the vernacular of suburban streets in New Zealand.

The primary purpose of the Street Furniture Zone is to provide a greening element that separates pedestrians from vehicular traffic and allows for the provision of street trees where adequate width is available.

Kerb Zone

The Kerb Zone is a clear area 800mm wide measured from the front face of the kerb towards the property boundary. It keeps streetscape elements clear from moving or parked vehicles and allows for vehicle door opening and bus tail overhang when turning out to re-enter the traffic stream.

The Kerb Zone is to be kept free of street lighting poles and street furniture (tree surrounds level with the kerb and footpath are the exception) to avoid potential for damage by vehicular impact.

Kerbs and channels themselves have a number of important purposes in conventional streets. Besides defining the limit of the pedestrian environment, the kerb itself is a major tactile cue for the vision impaired, deters vehicles from using the footpath and prevents carriageway run-off water from flooding the footpath.

Urban and suburban streets without kerbs must employ other design solutions or elements to maintain these functions while providing for a greater level of pedestrian priority.

The design of Kerbs and Channels is dealt with in *ATCOP Section 7.7 Kerb and Channel*.

6.3.4 Determining Footpath Widths

Well-proportioned footpaths are a fundamental part of good streets. They are the building block of a great pedestrian environment and are critical to the quality of public life and pedestrian safety in Auckland.

Footpath widths must appropriately reflect the street context. This means widths will vary to respond to the level of pedestrian movement, the needs of local businesses and types of activity on the footpath.

6.3.5 Recommended and Minimum Footpath Widths

Design teams should meet or exceed the recommended footpath widths. These widths allow for the provision of all desired streetscape elements on the footpath and within berms where present.

All footpaths should meet the absolute minimum widths. Refer to *ATCOP Chapter 12 Footpaths and Pedestrian Facilities* that are below these widths should be considered deficient. When funding

allows or the street is otherwise being reconstructed, footpath widening should be given the highest priority within project objectives.

Developments that create new streets must meet or exceed recommended footpath widths.

Table 14: Recommended Footpath Widths

Context	Zone				Total
	Frontage Zone	Through Route	Street Furniture Zone /Kerbside Berm Zone	Kerb Zone	
Urban Street with Bus Stops	0.75 m	2.4m+	3.0m	0.8m	7.05m+
Urban Street with Street Trees	0.75 m	2.4m	1.5m	0.8m	5.55m
Urban Street with Street Furniture Zone	0.75m	2.4m	1.25-1.5m**	0.8m	5.3–5.55m
Urban Street Absolute Minimum Widths	0.15m	1.8m+	0.45m**	0.15m	2.55m+
Suburban Street Recommended Width	0.45 – 1.5m*	1.8m	1.5m+	0.8m	4.55-5.6m+
Suburban Lane Absolute minimum***	0.15m	1.8m	0.9m**	0.15m	3.0m
Rural road	2.0-6.0m	0.0-2.0m	0.0-6.0m	0.8-2.0m	2.8-14.2m

** 1.5m minimum width street furniture zone or berm is required for accommodating street trees

*** Absolute minimum widths do not allow space for street trees or furniture.

6.3.6 Spatial Arrangement at Street Intersections

The design of street intersections has a big impact on streetscape amenity, and on the experience of pedestrians crossing the street.

A balance between transport modes and uses need to be considered on a case by case basis in order to accommodate and prioritise appropriately.

The diagram below will be amended to show bicycles, ramps on speedtable and contrast on speedtable along with tactiles, so peds realise this is not a sidewalk extension i.e. peds must give way to vehicular traffic.



Figure 34: Typical Spatial Arrangement - Intersection of Arterial Street and Collector Road in Town Centre Environment

KEY ATTRIBUTES

- Wide paved footpaths with kerb extensions to create continuity and priority for pedestrian movement along the primary street [the above diagram will be amended to clearly show the priority of the pedestrian movement along the primary and secondary streets]
- Raised table to ease pedestrian access and crossing and to reduce traffic speeds
- Tight corner kerb radii to reduce pedestrian crossing distances and reduce the speed of turning traffic
- No dedicated turning lanes at intersections to allow kerb extensions to reduce pedestrian crossing distances, improve sightlines and provide additional public space
- Corner Clear Zone an extension of the Through Route in busy pedestrian environments, kept clear of unnecessary street furniture and obstructions
- Bus priority lanes should be included at these sort of intersections [Diagram will be amended to show this]
- Advanced stop boxes provided for bicycles.
- Directional and warning tactiles



Further diagrams will be developed to show Arterial and local road intersection in the town centre environment.

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6.3.7 Spatial Arrangement for Streetscape Components

Table 15: Table Title

Streetscape Component	Streetscape Zone						
	<i>Needs splitting into urban, town centre, suburban and rural...</i>						
	Frontage Zone	Through Route	Street Furniture Zone	Kerbside Berm Zone	Kerb Zone		Stopping lane/kerbside lane
Seats							
Rubbish Bins							
Drinking Fountains							
Bicycle Racks							
Bicycle Lockers N/A							
Pedestrian Signage							
Bus Stops & Shelters							
Public Toilets							
Telephone Boxes							
Post Boxes							
Kiosks							
Banners and Flags							
Hand Rails							



Streetscape Component	Streetscape Zone					
	Needs splitting into urban, town centre, suburban and rural...					
	Frontage Zone	Through Route	Street Furniture Zone	Kerbside Berm Zone	Kerb Zone	Stopping lane/kerbside lane
Lighting Power poles						
Public Art						
Wayfinding Elements & Environmental Graphics						
Street Trees						
WSD Features						
Planted Areas						
Raised Planters						
Hedges						
Grassed Areas						
Revegetation Areas						
Underground Services						
Service Covers						
Utility Cabinets						
Traffic Signals						



Streetscape Component	Streetscape Zone					
	Needs splitting into urban, town centre, suburban and rural...					
	Frontage Zone	Through Route	Street Furniture Zone	Kerbside Berm Zone	Kerb Zone	Stopping lane/kerbside lane
Traffic Signs						
Car Parking Entry/Exit Signage						
Signage by other parties						
Parking Meters						
Bollards						
Pedestrian Guardrails						
Safety Fences & Barriers						
Parklets						

6.3.8 Selecting Materials

Durability/Design Life

A quantitative measure that is an estimation of the length of time the material is expected to perform in the proposed environment

Cost/Whole of life cost

A quantitative measure which should factor both the initial costs of supply and installation of the item and the 'whole of life' cost for the item. How long does it last? How easy is it to repair? Are there parts which can be reused at the end of the item's life? How much has the item actually cost when it is replaced?



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Functionality

Is the element/material fit for purpose, exceeding all required technical parameters?

Maintenance

Ease of cleaning ease and cost of reinstatement (available skills, workmanship and cost. Relates also to Design Life and Whole of life cost above.

Supply

Security of supply (availability), volume/capacity to provide element/materials as and when required, in a timely fashion.

Sustainability

Consideration of the environmental cost and contribution to the local and national economy from locally supplied items.

Look and Feel

What the appearance is. Does the material choice contribute towards local distinctiveness, character and sense of place as well as reflect the Auckland brand and identity.? Are we proud of what we have created and is it the best it can be?

6.4 Streetscape Component Guidelines

6.4.1 Pedestrian Related Streetscape Components

6.4.1.1 Banners & Flags

Introduction

Banners and flags can play an important supporting role in place-making, reinforcing a sense of civic identity and promoting regularly changing city events.

Provision

Banners and flags may be provided as part of a streetscape in range of contexts, but are most appropriate in civic spaces, and outside public buildings, community and recreational facilities, and areas that regularly host major events.

A bylaw is being created to cover the use of banners and flags. Particular emphasise is being placed on addressing issues of safe sight lines, non-obstruction and suitable strength of the elements and what they are attached to.

Placement

Location

Banners and flags should be located on vertical columns located within the street furniture zone.

To avoid the need for providing additional vertical columns that introduce unnecessary clutter and capital outlay – the preferred approach is to affix banners and flags to existing Multi-functional Poles (MfPs) or otherwise to light columns where these are structurally able to take the additional loading.

In terms of the Land Transport Rule: Traffic Control Devices 2004, commonly known as the TCD Rule, banners and flags must not be attached to traffic signal poles.

Placement of banners and flags must avoid conflict with trees or building verandahs and canopies.

Good Practice

Kitchener Street, City Centre



The stretch of Kitchener Street outside Auckland Art Gallery was upgraded as part of the gallery's recent renovation. Footpaths were significantly widened and decluttered which has allowed the installation of a row of flag poles and banners that reinforce the civic qualities of the building and can change regularly helping to support the cultural activity within

6.4.1.2 Bus Stops and Shelters

Introduction

Well-located and designed bus stops and shelters have an important connection with streetscape amenity. There is a strong correlation in that streetscape designs that benefit pedestrians are often also helpful to public transport users and operators.

All bus rides begin or end on foot. People waiting at bus stops are some of the most frequent users of the pedestrian realm. The provision of well-designed bus shelters at bus stops is important in improving the total journey quality of people using buses.

Links and References

ATCOP Chapter 20 Public Transport- Buses especially 20.4.4, 20.9.5 and 20.5.6.4.



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6.4.1.3 Cycle Lockers

Introduction

Well located, safe and secure cycle lockers and other mass storage facilities can play an important role in encouraging more cyclists to make integrated journeys with public transport across Auckland. Cycle lockers are not considered appropriate for the streetscape environment. They are better placed within the facility they serve.

Detailed guidance on provision for cyclists can be found in *ATCOP Chapter 13 Cycling Infrastructure Design*.

Links and References

ATCOP Chapter 13 Cycling Infrastructure Design

6.4.1.4 Cycle Racks

Introduction

Well located, safe and secure cycle parking is an important factor in encouraging more people to cycle on Auckland's streets.

Detailed guidance on provision for cyclists can be found in *ATCOP Chapter 13 Cycling Infrastructure Design*.

Links and References

ATCOP Chapter 13 Cycling Infrastructure Design

6.4.1.5 Drinking Fountains

Introduction

Drinking fountains are a public amenity of value in high pedestrian activity areas including around public transport stations, well populated civic spaces and major recreational routes such as coastal and park edge streets. Recent drinking fountain designs have added functionality on the same pole, such as water bottle refilling stations and dog drinking facilities at a lower level, that may provide a more useful and valued offer in recreational settings.

Provision

Drinking fountains should generally be provided only on streets within high activity areas of a recreational nature, and well-used public squares and plazas rather than commercial streetscapes.

Drinking fountains should be provided at public transport stations i.e. rail stations, bus exchanges, and ferry terminals.

Placement

- Should be located in the street furniture zone
- Co-located with seating to promote visibility and use
- Allow sufficient clearance (1000mm) for use without obstructing pedestrian movement within the clear route
- 1000mm clearance from other street furniture items

Design Considerations

Functional Requirements

- Fountains should be of a robust and simple design that is easy and intuitive to use
- Need water supply and drainage to foul water with backflow preventer
- All drinking fountains should be accessible to all users, particularly people in wheelchairs

Materials and Finishes

- Drinking fountains should be selected to form part of a family of street furniture to be used consistently within a given locality.
- Construction should use durable, high-quality materials, such as galvanized or stainless steel.
- Materials, colours and finishes should be consistent with other street furniture. Material and paint selection should be graffiti resistant.

Good Practice Example

[Good practice example and caption to be added]

References

Auckland Transport is currently collating a range of standard drinking fountains with criteria for use across Auckland.

6.4.1.6 Handrails

Introduction

Handrails are required to meet the pedestrian safety and accessibility requirements of the Building Code.

A distinction is made between handrails required for pedestrian safety/accessibility requirements in relation to steep gradients or steep fall away from the footpath (refer to *ATCOP Chapter 12 Footpaths and Pedestrian Facilities*) and pedestrian railings and fences installed to prevent pedestrians from crossing the carriageway at unsafe locations (refer to *ATCOP Chapter 9 Road Restraint Devices*).

6.4.1.7 Kiosks

Introduction

Kiosks are free standing permanent pavilion structures within streets. They can house a wide variety of activities, both commercial and public information services. They are generally found only in the city centre and other tourist destinations.

This guidance does not include mobile street traders, which are subject to the street trading public places bylaw. [Reference to the relevant street trading bylaw will be added here.]

Provision

Unlike cities in other parts of the world, kiosks are not yet a regular feature of Auckland's streets. Streets in Auckland's historic town centres are often narrower than other cities internationally and it is often not appropriate to introduce kiosks into constrained and sensitive pedestrian environs. They are generally more appropriate supporting activity in larger public squares and plazas than in streets.

As such, the use of kiosks is likely to be developed in response to an identified need or desired additional activation of a specific locality. Therefore the provision and placement of kiosks should be guided by project-specific objectives, constraints and opportunities as identified through the design process.

Best practice design for street kiosks designed and provided as an integral part of the streetscape design, with leases to independent operators. Lease arrangements are predicated on securing and supporting the right type of activities to support street life.

Placement

Location

Kiosks can be bulky and large, and often have backs and fronts that should be taken into account when siting them in relation to adjacent property, pedestrian movement routes and other streetscape elements.

Consider where and how people are likely to gather at the kiosk and impact on pedestrian movement and the use of the street for other activities. Kiosks should be placed such that they do not block scenic views.

Design Considerations

Look and Feel

Kiosks can make a significant contribution to the look and feel of a place. They should be designed to the following guidelines:

- When more than one kiosk is installed on a street, all kiosks should be of the same, or complementary design and scale.

- Kiosks can be artistic and expressive. They should reflect an area's special character through their design and can be integrated with public art.
- Building design should maximise active and well articulated frontages to add visual interest and contribute to the vibrancy of the street.

Responsibility

Currently, Auckland Transport kiosks exist in city centres at Britomart Transport Centre and limited other locations (e.g. High Street outside Freyberg Place).

Others are independent and are subject to relevant Auckland Council resource and building consents and Auckland Transport approvals for street trading.

Good Practice

Courtenay Place, Wellington



Street kiosk recently constructed in Courtenay Place, Wellington.

Poor Practice

Britomart Transport Centre



Example of poorly designed and located kiosk with highly visible blank back at Britomart, Lower Queen Street)

6.4.1.8 Lighting

Introduction

Street lighting is an important element of street amenity. Critical to support night time activity, safety and security, street lighting, particularly pole lighting, is often a key organising element that also defines the daytime street environment.

Refer to *ATCOP Chapter 19 Street Lighting* for full details of street lighting including lighting levels, performance standards and lighting types.

6.4.1.9 Outdoor Dining

[Needs to be checked for alignment with the Street Trading Bylaw]

Introduction

Outdoor dining brings a sense of vitality to the street and plays an important role in activating streets in Auckland's main streets and town centres.

Outdoor dining should be designed to reflect the public nature of the street, with minimal fencing or boundaries that tend to privatise the public place.



The permitting and use of public streets for outdoor dining spaces is governed by the Street Trading and Public Places Bylaw, currently in development and to be administered jointly by Auckland Transport in relation to streets and Auckland Council in relation to open spaces.

Provision

[to be cross-referenced with street trading bylaw and key points re-iterated]

Provision of space dedicated to outdoor dining is most appropriate in the following locations:

- In city centre and town centre streets with a wide enough footpath to accommodate outdoor dining without interfering with pedestrian access and other street activities.
- In public and private plazas and squares.

It is possible to provide for smaller format outdoor dining in narrower streets subject to minimum clearances as stated below.

Outdoor dining should be particularly encouraged to establish where there is opportunity for greater levels of pedestrian activity or in areas that require revitalisation.

Placement

Location

The location of outdoor dining should provide for a comfortable, attractive and relaxing environment for patrons, while complementing other street activities.

Placement of outdoor dining needs to maintain adequate clearances to integrate with other street activities, pedestrian access and circulation, and traffic safety.

Different city streets demand different clearance requirements due to the width of existing footpaths and the amount of pedestrian traffic.

As a minimum, outdoor dining should allow sufficient space on the footpath for two mobility aids or prams to pass each other comfortably.

Where footpath widths allow, kerbside outdoor dining is preferred to maintain the through-route against the building frontage.

Premises should ideally have a clear view of the outdoor dining from the inside to ensure effective monitoring.

Outdoor cafes should not compromise the ability of the general public or service contractors to access street furniture or public infrastructure.

Minimise fencing, planter boxes or other elements that demarcate boundaries and tend to privatise the public place or restrict free pedestrian movement and access.

Street frontages should not be obscured by furniture or fittings (including canvas screens, glass screens, planter boxes and freestanding awnings).

Approved street trading zones are to be demarcated by stainless steel studs in the pavement as per the Street Trading Bylaw.

Spacing and Clearances

- 600mm minimum width for outdoor dining zone;
- 800mm minimum clearance from the front face of the kerb
- 1800mm minimum clearance for pedestrian clear zone, greater in the city centre and 500mm minimum offset from tree pits, bollards and poles
- 1000mm minimum clearance from other street furniture items including public benches, bins, bike racks, payphones, parking meters and bus stop shelters
- Clearance breaks of 2000mm minimum gap between outdoor dining zones of 12m or greater in length

Good Practice



In the Elliott Street Shared Space, outdoor dining is consistently provided in the street furniture zone maintaining an accessible through-route alongside the building frontage.

Links and References

Auckland Transport/Auckland Council Public Places/Street Trading Bylaw under development.

Melbourne City Council. Outdoor Café Guide.

6.4.1.10 Pedestrian Signage

Introduction

This section addresses general best practice principles for provision, placement and design of streetscape signage for pedestrians.

Pedestrian signage on streets is usually supplied to help people locate local facilities and amenities. It is important to make information as simple and easily understood as possible for all users.

This section addresses signage that is primarily aimed at pedestrians and cyclists rather than motorists. This includes directional and wayfinding signage, information panels and interpretative signage. For Traffic signage refer to *ATCOP Chapter 10 sections 10.1 and 10.2*.

Auckland Transport has inherited a very wide range of pedestrian signage, not all of it fit for purpose or necessary, across the city's streets.

Auckland Transport is currently working on a separate wayfinding policy and guideline for inclusion in *ATCOP Chapter 21 PT Rail - Appendix 21B*. ATCOP will be updated with this information when this has been completed.

Refer also to *ATCOP Chapter 12 Footpaths and Pedestrian Facilities* for other general comments.

Provision

When to use pedestrian signage

On most streets, the typical street sign is all that is needed to orient pedestrians. However, in town centres, main streets, public spaces and other key walking routes, additional directional signage is often helpful. This is especially true on streets that handle greater numbers of visitors (such as the city centre) or in tourist-oriented areas (e.g. Tamaki Drive, Devonport and Waiheke Island). Less travelled areas may still include some basic informational signs or neighbourhood markers.

Different types of pedestrian signage are used in different instances and for different purposes.

Directional & Wayfinding signage

Auckland Transport is currently working on a separate wayfinding policy and guideline for inclusion in *ATCOP Chapter 21 PT Rail – Appendix 21B*. ATCOP will be updated with this information when this has been completed.

Directional signs are typically much simpler than information panels, featuring only place names and wayfinding information. They should be of a distinct and co-ordinated design in keeping with the character of the surrounding area. Well-designed directional signs can help create a distinct identity for Auckland

Key areas where directional pedestrian signage should be provided include:

- All Metropolitan, Town and Local Centres
- The City Centre and the City Centre Fringe
- Key walking routes to schools, work places, shops, community and recreational facilities
- Public transport routes and stations
- Streets within proximity or that border the coast, major parks or other important recreational routes and destinations

In general, directional signs should include destination icons, place names and directional markers (e.g. arrows) for local destinations on blades or integral to the body of the sign.

Information Panels

Information panels provide more area-based information than directional signage, containing a map clearly showing the current location and the best routes to nearby destinations, as well as directional signage. They are generally in a vertical banner format to minimise their footprint and intrusion in the streetscape.

Interpretation Panels

Interpretation panels are generally limited to the city centre and other tourist-oriented areas, and provide information on the past and present of a particular locale. This can include broader geographical, social or cultural narratives as well as interpretation of specific areas or objects of heritage or cultural significance or significant historical associations.

Often they may form part of a wider heritage walk and an integrated and consistent approach should be developed.

Digital Signage / Digital Media Applications

When appropriate and feasible, design teams should consider the use of new technologies such as interactive and virtual displays with event or other real-time information. However, such design features should respect the street context and minimise visual intrusion.

Design teams should consider the potential for integration with digital media as a way of minimising the content and number of interpretive signs in response to the general principles of legibility and avoiding clutter.

Right Information in the Right Place

Design teams should take an integrated approach to pedestrian signage. Proposals should ideally be developed as part of a wider wayfinding strategy for an area. Such a strategy should consider major walking routes and destinations and the need for information at any point.

It is not necessary to provide all information for an area at any given point. Rather consideration needs to be given to providing the right information in the right place.

This is particularly so outside major rail stations or ferry terminals where visitors and unfamiliar users may alight into an area where there are many destinations and choices of route.

Consideration should be given to the optimal location for panels along the length of a street and across a wider area where applicable.

Minimise Use and Avoid Duplication

All streetscape signage should be placed at strategic locations with a goal of minimising the overall number of signs and signage systems necessary; overuse dilutes their effectiveness and clutters the streetscape.

Placement

Location

All types of streetscape signage should be placed in accordance with the general guidelines stated in *ATCOP Section 6.3* (e.g. consistent location in the street furniture zone, or co-ordination and co-location with other streetscape elements). In addition, they should:

- be located in the street furniture zone and as near to intersection corners as is practicable (but outside of the corner clear zone)
- share existing poles where possible consistent with the signage design, or be designed as an integral streetscape element
- maintain minimum clearances of 600mm from the front face of the kerb (800mm on all bus routes)
- refer also to direction signage in *ATCOP Chapter 10 sections 10.1 and 10.2 Traffic signs*

Minimise intrusion and clutter

Co-ordinate pedestrian signage with other signage and streetscape elements. This can be achieved by placing signs on Multi-function Poles (MfPs) or existing lighting columns that are structurally designed to accommodate this, frontages of buildings, or at a low level on walls, raised planters or pedestrian railings. Note, however, that in terms of the TCD Rule it is not permissible to add signage plates to certain traffic control devices or their supporting structures or poles, so this aspect must be checked before affixing additional signs to such devices. Dedicated posts for mounting directional or wayfinding pedestrian signage should only be used where there is no alternative.



In areas of very high pedestrian activity, such as major retail streets or outside major rail stations, a balance should be struck between the need to provide information and the need to keep such busy pedestrian areas free of clutter.

Viewing Distances

Signs should always be located out of the clear zone so that safe sight lines are provided and should be consistently aligned with other street furniture elements. Information and interpretation panels should be located in such a way that pedestrians will not walk into the sign face or its edges.

Signs should be placed such that sign faces can be read within the normal field of vision of users.

- Signs intended for viewing close up should be mounted on walls or other structures 0.9m to 1.5m above the ground.
- Pole signage should be 2.5m above the ground, with information tailored to be read at some distance away
- Information panels should be located with the signage face perpendicular to the kerb, with a minimum offset of 600mm from the kerb face (800mm on all bus routes).
- Wall mounted information boards with timetables and maps should be centred approximately 1400mm from the footpath surface and should be placed such that pedestrians will not walk in to the sign face or its edges.

Design Considerations

Functional Requirements

Ease of reading is the key functional requirement which is a combination of placement and design. Signs should be located such that they are easy to spot from far away, but designed to be read close up by pedestrians with a high level of detailing and craftsmanship.

Information panels should be sized to meet optimal information requirements, but must not obstruct pedestrian movement or visually dominate the streetscape.

Generally vertical columns are more readily accommodated into the streetscape than horizontal panels.

Signface Legibility

The size and spacing of lettering used on information boards should be related to the distance from which the sign will usually be read. Refer to Appendix 3: Signface Design Details of LTNZ Pedestrian Planning & Design Guide for further details



The use of standard pictograms to increase legibility of signage and understanding for people may be used in addition to approved text in accordance with NZS 8603:2005 Design and application of outdoor recreation symbols.

Other symbols can provide additional simplicity and greater clarity, but should not be used unless it is known that the readers will understand them.

The needs of people with vision impairments are particularly important. Some boards also have an audio facility for people with hearing impairments and language barriers.

Look and Feel

Pedestrian signage can have a big impact on the look and feel of the streetscape.

Auckland Transport is currently working on a separate wayfinding policy and guideline. ATCOP will be updated accordingly when this has been completed.

Materials and Finishes

Construction should use durable, high-quality materials, such as galvanized or stainless steel and glass. Materials, colours and finishes should be consistent with and complementary to other street furniture elements

Material and paint selection should be graffiti resistant and minimise any glare.

Good Practice



Example of vertical wayfinding signage used consistently throughout the city centre and waterfront, with clear directional information for a range of destinations within the vicinity.

Links and References

Land Transport New Zealand (2007): Pedestrian Planning and Design Guide. Appendix 3: Signface Design Details

6.4.1.11 Post Boxes

Introduction

Post boxes are not the responsibility of Auckland Transport and are designed, installed, serviced and maintained by postal service providers.

Authorisation is, however, required by Auckland Transport as to their siting within the street; as such this guidance focuses on location criteria.



Placement

Location

Post boxes should be placed consistently within the street furniture zone.

Where one or more post boxes are proposed to be added to street locations already serviced by post boxes serviced by other providers, care should be taken to avoid obstruction of pedestrian movement or street clutter.

Edge of unit should be 600mm from the front face of the kerb (800mm on all bus routes), at least 750mm from the through route and 1000mm from other furniture.

Rectangular designs should be placed lengthways parallel to the kerb to minimise intrusion into the footpath.

Units should be positioned so that mailing slots and cabinet doors face inwards to the footpath for ease and safety of access.

Consideration should be given to the ease of emptying the box at any given location.

Responsibility

Post boxes are the responsibility of New Zealand Post or other private operators.

Authorisation

Approval for the siting and appearance of any new post boxes must be sought from Auckland Transport.

Good Practice

Queen Street, City Centre

Photo of well located post box to be provided

Poor Practice

Albert Street, City Centre



A poorly sited post box contributing to street clutter and blocking pedestrian movement to and from the adjacent bus shelter.

Links and References

To be provided.

6.4.1.12 Public Art

Introduction

Public art can play an important role in contributing to street designs that respond to context and celebrate and foster a sense of identity in local places.

Public art by its nature is project-specific and ideally a site-specific response developed as part of a wider project.

Public art proposals should be developed in accordance with Auckland Council's Public Art Policy and Auckland Transport's Public Art Guidelines (currently under development).

This section is limited to guidance on the provision and placement of artworks in relation to other streetscape components.

Provision

Opportunities for public art should be identified as early on as possible within streetscape and transportation infrastructure projects so that they can be developed as an integral part of the design process.

Project briefs may call for artists as part of design teams or design teams may propose artworks as part of design responses.

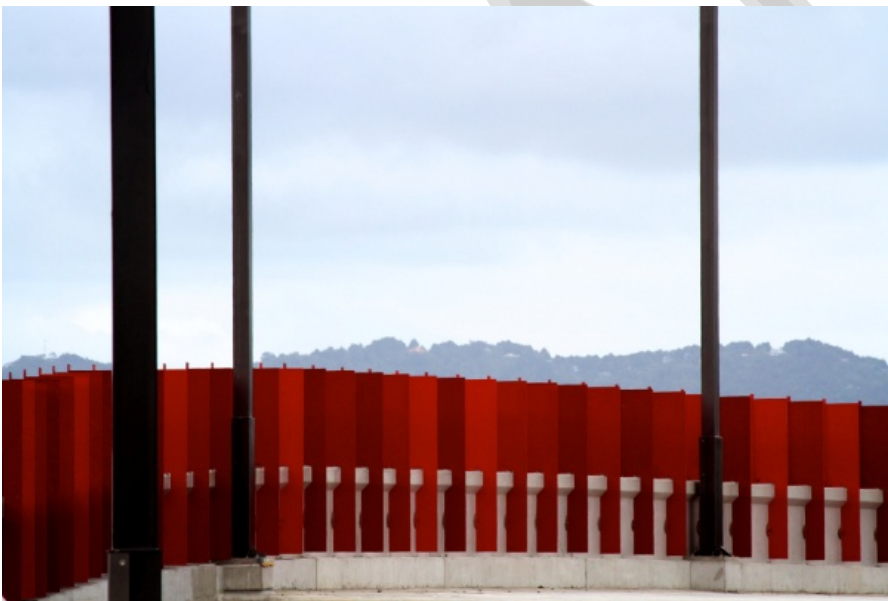
Artworks can be realised in any number of ways as identified by artists and design teams in response to context and project-specific objectives, constraints and opportunities.

Placement

Artworks are most successful when they have been developed as an integral part of the design process for a project. This includes considering the spatial and formal qualities of artwork proposals in relation to other streetscape components, adjacent built form, and pedestrian movement and use of the street and/or public space.

The placement of proposals for sculpture or other artworks that may pose physical obstacles within the streetscape need to be considered in the same way as any other streetscape component, including keeping clear of pedestrian movement in the through-route and not presenting a roadside hazard to motorists.

Good Practice



Clark Street Overbridge, New Lynn - an example of public art integrated into streetscape infrastructure

Poor Practice

Newmarket example at ped crossing

Photo of poorly located plonk art obstructing pedestrian movement to be provided



Links and References

Auckland Transport Arts Guidelines (currently under development)

Auckland Council Arts Policy

6.4.1.13 Public Toilets

Introduction

The following guidance focuses on the provision and placement of stand-alone public toilets within the streetscape.

This section does not provide detailed design criteria as public toilet units in the street are generally installed and operated by independent parties under service contracts to Auckland Transport.

Provision

While public toilets are an important amenity they should generally be provided within public buildings and community facilities, well populated civic spaces such as squares and plazas as well as parks and open spaces. They should only be introduced into the more constrained and sensitive environs of a streetscape as a last resort.

Placement

Location

Public toilets should only be located where there are high levels of pedestrian activity and passive surveillance from adjacent uses to avoid unsafe and antisocial behaviour. If the public toilet is to operate during night hours then the location must be well illuminated.

Sensitivities around adjacent land uses must be considered. Public toilets should not be located on a pavement fronting a restaurant, cafe or any other eating establishment. As far as possible, units should be placed out of the line of vision of any eating establishment.

Public toilets should not be located in front of a building entry and the entry to the restroom should be oriented away from the closest building entry as far as possible.

Public toilets should be placed so they do not block scenic views.

Spacing and Clearances

Freestanding public toilets are not permitted on pavements less than 3.5m wide, or on any pavement on which their placement would obstruct the minimum through-route allowing for a minimum 900mm clearance between opening doors and the clear zone to allow ease of use outside of the clear zone.

Where possible units should be placed such that cubicle entrances do not open directly onto the main clear zone for pedestrian movement.

Public toilets in streets should be located in the street furniture zone, a minimum of 600mm from the outside edge of the kerb (800mm on all bus routes).

Public toilets should be placed a minimum of 1000mm from existing or other street furniture elements such as street trees, benches and lighting poles.

Maintenance

Maintenance of public toilets is the responsibility of and is managed by the Auckland Council Property Department.

Good Practice

Fort Street Shared Space, City Centre



Public toilet located within the Street Furniture Zone keeping clear of the accessible through-route

Links and References

6.4.1.14 Rubbish Bins

Introduction

Rubbish and Recycling Bins have an important functional role supporting pedestrian and business activity in streets. They are generally required in town centres, at public transport stations and stops, in recreation spaces and in other areas with high pedestrian activity levels.

The provision of bins is entirely functional, but can have a considerable impact on the appearance of the street or location. There will be a restricted range of bin designs with set criteria for their use in particular locations across the region. A definitive list is being developed.

Provision

Care should be taken not to over-provide bins in any given area, such that they clutter the footpath and detract from the amenity of the area.

Bins that are redundant should be replaced by new bins or otherwise taken out of service and removed.

The provision of bins, in particular recycling bins, must take into account the street cleaning regime in any given locality as they must be emptied and maintained on a regular basis.

Some particularly isolated locations work better without bins.

Placement

Location and Spacing

Along shopping and town centre streets with high foot traffic and areas where people congregate, bins should be provided at regular intervals, ideally every 50m

Bins should be located within the street furniture zone. They should generally be placed at intersections, in proximity to seating areas and in visible locations.

At intersections, bins should be located as near to the corner as is practicable to where pedestrians wait to cross, but out of the corner clear zone.

At seating areas, bins should be placed within direct line of sight, but a 3m separation distance between bins and seats maintained so as not to detract from the seating area. Bins must not be sited between seats and their primary orientation towards street activity or a view.

Bins should generally be co-located with other street furniture elements in a co-ordinated manner to avoid clutter.

Minimum clearances between stand-alone bins and other streetscape components include:

- 600mm minimum distance from the front face of kerb (800mm on all bus routes)

- 1000mm clearance from other street furniture elements

Care should be taken to avoid placing bins where they would reduce the usable footpath width to below the minimum acceptable width of 1.8m or in town centres 2.4m minimum.

Design Considerations

Standard Rubbish Bin Types

Bins should be chosen from an agreed range approved for general use with attached criteria for use by Auckland Transport. Auckland Transport is currently collating a range of standard bins with criteria for use across Auckland.

Bins should be selected to respect special areas and features, and this may mean departures from the approved range in rare instances. Any proposed departures from the limited range are subject to an exception report for the approval of Auckland Transport

Bespoke bin design is not considered an appropriate response to context. Bins are not a vehicle for expressions of local identity and character and any proposed alternative bin design should avoid unnecessary embellishments.

Examples of approved items include:



CBD PPR (Public Place Recycling Bin)



Waitakere Rubbish Bin

Functional Requirements

Bins should be robust, functional and of a simple design.

Ease of access for emptying is a key consideration. The capacity of the bin needs to take account of the intensity of use to avoid spillage of contents onto surrounding footways.

Ashtrays should not be provided although unobtrusive cigarette stubbers may be used.

Ideal height placement of litter into bins is 1100 mm to allow for use by children and wheelchair users.

Materials and Finishes

Bins should be selected to form part of a family of street furniture to be used consistently within a given locality.

Construction should use durable, high-quality materials, such as galvanized or stainless steel. Materials, colours and finishes should be consistent with other street furniture. Material and paint selection should be graffiti and vandal resistant.

References

Links to Engineering Standards/Typical Details for Approved Rubbish Bin Types - are to be provided

Links to Waste Collection Policy/Guidance - are to be included

6.4.1.15 Seats

Introduction

Seating is a key component in supporting the function of streets. Seating provides resting places for pedestrians, but also places where people can linger, enjoy the view or interact socially. By



encouraging this human activity, and through the look and feel of their design, benches and seating elements can be a key contributor to successful place-making and movement networks.

The placement of seating within the street and the detailed design qualities of seating elements are important to support these place and movement functions.

Provision

Key areas where seats should be provided include:

- Key walking routes to schools, work places, transport nodes, shops, community and recreational facilities
- Public transport routes, stations and interchanges
- The city centre, metropolitan centres, and town and local centres
- Streets that border the coast, major parks, or other important recreational routes

Provision should be made at regular spacing along recognised pedestrian routes, especially those used by less-mobile people or where the street has a steep gradient.

Seating that is taken out of service should be removed.

Informal Seating Opportunities

Where streets play an important public space role, such as in town centres, a varied selection of seating elements should be provided.

In addition to well-situated, comfortable and accessible primary seating, secondary opportunities for informal seating should be considered. These can include steps, raised planters and other low walls, bollards and building edges. Where seating is in high demand these secondary opportunities make a valuable contribution, but they should not be a replacement for primary seating.

A balance should be struck between groups of seating to promote interaction and accommodate groups and individual seats in locations that offer relative quiet and respite for individual users.

Placement

Location and Spacing

In town centres and other streets where the footpath extends to the kerb, seating should generally be located within the street furniture zone adjacent to the kerb, and clear of the through-route.

In suburban streets where footpaths are bounded by grass berms on each side, seats may best be placed in hardstand areas within the grass berm within the property frontage zone, away from fast moving traffic.

Seats should not block access to property or unduly block shop window displays.

Seating should be sited and arranged to reduce visual clutter, co-ordinated with other street furniture elements.

Minimum clearances between seats and other streetscape components include:

- 600mm minimum distance from front face of kerb (700mm on double decker bus routes)
- Ideal setback of 750mm from through-route
- 600mm clearance from tree pits
- 1000mm clearance from other street furniture elements
- Placement and spacing of seating should consider dimensions required when occupied and generally allow 750mm space for users in front of the seating element. [A diagram will be drawn up to support these notes.]

Orientation of Seating Elements

Location and arrangement of seating should be aligned with the geometry of the space – facades, movement routes, other street furniture and trees.

Seating should be located at the edges of space, look onto street activity and offer the user a view (particularly towards other people). General orientation guidelines include:

- If width permits generally locate seats perpendicular to the kerb to offer views down the street
- For ease of use seating should always be oriented perpendicular to steep gradients
- Seats should not face only onto parked cars
- Seats at bus stops should be placed to optimise the view of approaching buses and real time signage
- Seating should be placed in visible locations where users can be seen and feel safe

Groups of Seating (variations include among others)

- Seating elements can be grouped in pairs of 'L' shapes to create 'gathering points' or nodes of activity along the street. These should be aligned with pedestrian movement patterns and activities and placed on the edge of spaces.
- The clearance between the front face of seats placed to face each other to encourage groups or interaction should be 0.9m minimum and 1.5m maximum.
- Back-to-back to provide separate seating oriented away from each other to provide solitude for individual users

Comfort and Microclimate

Seats should be located for user comfort in relation to local microclimate of sun and shade, and shelter from wind and rain.

Sunlit positions are generally preferred in dense built environments whereas in open and exposed locations such as along the coast placement under trees or shade structures may be more appropriate.

Shelter from wind, and avoidance of known wind tunnels from tall buildings, is also important to avoid seats being uncomfortable or little used.

Standard Seating Types

Auckland Transport has inherited a wide variety of benches and other seating elements within Auckland's street environments. These include both bespoke designs and off-the-shelf products.

While a certain degree of diversity in seating is appropriate in some locations where bespoke street furniture palettes and area-based design guidelines exist, elsewhere this variety, often within any given stretch of street, contributes to a lack of a consistent, cohesive and legible streetscape environment. The lack of consistency also creates maintenance and replacement issues throughout the street furniture item's lifecycle.

A limited number of seating designs will be approved by Auckland Transport for general use that meet minimum requirements for accessibility, maintenance and safety. This is currently a work in progress and the ATCOP will be updated to reflect this approved seating range and criteria for use.

Examples of approved items include:



CBD Seat 'S' Type



Waitakere Seat 'S3' Type

Street Furniture NZ xxxx for general use [to be added]

DRAFT

Design Considerations

Bespoke Seating

Bespoke seating elements may be appropriate in special areas such as town centres. Bespoke seating must be designed to meet the same performance criteria as approved seating types and should be designed to combine comfort, ease of maintenance and resistance to vandalism. Design teams will need to submit proposed bespoke seating elements to Auckland Transport for review and approval.

In addition to the general criteria outlined in *ATCOP Section 6.3*, the following criteria, adapted from the *Auckland CBD Better Streets Guide*, should be considered in designing bespoke seating elements or evaluating the suitability of new off-the-shelf products.

- Seating should provide flexibility of use for varying range of users
- Optimum seating height is generally 450mm
- Seating may be considered with or without backrests, but must provide armrests
- Items must be easily maintainable
- Seating should provide adequate clearance underneath for ease of street cleaning, as well as providing useful space for people to put their feet and bags under the bench, as well as a place for guide dogs to rest etc.
- Seating should be ergonomically designed to provide comfort and ease of use, and should provide varying opportunities of use
- Seating must be quick draining
- Timber is preferred where people may sit for longer periods of time
- Metal componentry must be resistant to corrosion e.g hot dip galvanised
- Large areas of flat surfaces should be avoided to limit the opportunity for graffiti and vandalism
- Cleaning and graffiti removal must be possible with ease and minimal effort
- Parts must be easily replaceable if damaged or vandalised

Best Practice

Queen Street, City Centre



[better photo to be provided]

Queen Street provides both seating and informal feature stone perches located at regular intervals along the kerbside street furniture zone. Seats are placed in groups that foster interaction by groups as well as individual use.

References

Area-Specific Street Furniture Suites e.g. City Centre, Waterfront, Henderson/New Lynn

Auckland City Council (2010): *Great Streets – A Streetscape Design Guide for the CBD*

Auckland Council (2012 under development): *Auckland Design Manual*

Land Transport New Zealand (2007): *Pedestrian Planning and Design Guide*

6.4.1.16 Telephone Boxes

Introduction

Telephone boxes are not the responsibility of Auckland Transport and are designed, installed, and maintained by telecommunication providers. Authorisation is, however, required from Auckland Transport in terms of their location, installation and appearance; as such this guidance focuses on their placement within the streetscape.



Placement

Location, Spacing and Clearances

Single telephones or clusters should be at least 50m apart along the length of a section of street.

Telephone boxes should be placed consistently within the street furniture zone.

Telephone boxes should not be installed on footpaths less than 3.5m wide.

Edge of unit should be 600mm from the front face of the kerb (700mm on double decker bus routes) and at least 750mm from the through-route.

Telephone boxes should be placed so that doors do not open directly into the path of pedestrians within the through-route.

Design teams should ensure that there is sufficient space around telephone boxes (1850 x 2100 mm) for wheelchair access.

Design Considerations

While telecommunication operators have their own designs and branding they should be encouraged to co-ordinate the box with other street furniture and to respect the surrounding area.

Responsibility

Telephone boxes are the responsibility of the telecommunication provider.

Authorisation

Telecommunication operators have to seek approval from Auckland Transport for the siting and appearance of any new telephone boxes.

Good Practice

Queen Street, City Centre



Telephone box sited in the centre of the Street Furniture Zone clear of other street furniture items, positioned so that the doors do not open onto the Through Route

Poor Practice

Gore Street, City Centre



Telephone box incorrectly positioned such that the entrance faces onto the Through Route

Links and References [to be provided]

6.4.1.17 Wayfinding Elements & Environmental Graphics

In addition to pedestrian signage, design teams may consider a number of other approaches to incorporating wayfinding elements into streetscape design.

Additional environmental graphics and other wayfinding elements can assist with the legibility and identity of streets for pedestrians. They can also be treated as a public art opportunity that helps foster and celebrate a sense of identity and placemaking.

Auckland Transport is currently working on a separate wayfinding policy and guideline for inclusion in *ATCOP Chapter 21 PT- Rail - Appendix 21B*. ATCOP will be updated accordingly when this has been completed.

Street Trees & Planting

6.4.2.1 Grassed Areas

Grass berms are a ubiquitous part of suburban streets in Auckland. They contribute to street greening and local character as well as minimising stormwater runoff.

Grass establishes well on moderate to steep slopes and can assist with the visual integration of earthworks and cut and fill batters required for engineering works.

Refer to *ATCOP Chapter 14 Landscaping* and AT's [Vegetation in Road Corridor Guidelines](#) (PDF 105KB).

6.4.2.2 Trees and Planted Areas

Street trees and other planted areas provide a range of functional and aesthetic opportunities for environmental enhancement. It can also help to define spaces and positively influence pedestrian movement, use and activity patterns.

Refer to *Chapter 14 Landscaping* and AT's [Vegetation in Road Corridor Guidelines](#) (PDF 105KB).

6.4.2.3 Raised Planters

Introduction

Well located and designed raised planters can provide informal seating opportunities and define spaces and positively influence pedestrian movement, use and activity patterns. Poorly located raised planters may obstruct pedestrian movement and add to street clutter.

This section provides guidance primarily on the placement of raised planters within the street and their integration with other elements.

Provision

Raised planters may be appropriate in town centres and other environments accorded high pedestrian priority and where space permits their placement without becoming a movement barrier and/or narrowing down the Through Route. This will usually restrict their use to plazas, squares and other public places rather than more constrained footpath environments.

Raised planters should be designed as an informal seating element as well as a planter.

Placement

Raised planters can be a movement barrier for pedestrians on the footpath and to coming and going from parked cars. They can also contribute to unwanted street clutter.

Their placement should be carefully considered and should arise out of spatial and functional opportunities identified through the design process.

Design Considerations

Functional Requirements

The design of planting structures must be considered as an integral part of the development and surroundings to fulfil both functional and aesthetic requirements. The durability and maintenance requirements of these structures must also be considered in making an appropriate selection. All such structures must be designed to safely withstand appropriate loadings and must not be a hazard to the public. Proposed planting structures must be submitted to Auckland Transport for approval and agreed to before any work commences on site.

Good Practice

Jean Batten Place, City Centre



Raised planter in the Jean Batten Place provides informal seating opportunities without obstructing movement and helps to define space

Poor Practice

Albert Street, City Centre



Raised tree planter unnecessarily narrows footpath width, adding to street clutter in an area of high foot traffic. [Takapuna - Hurstmere road example to be provided.]

Links and References

ATCOP Chapter 14 Landscaping

6.4.2.4 Re-vegetation Areas

Native re-vegetated areas can play an important role in integrating road environments with surrounding landscapes where they pass through areas of natural vegetation.

The establishment of re-vegetated areas and ecological restoration is a specialist discipline and design teams should seek input from a suitably qualified landscape architect or ecologist to provide specialise advice and design expertise.

Refer to *ATCOP Chapter 14 Landscaping* and AT's [Vegetation in Road Corridor Guidelines](#) (PDF 105KB).

6.4.2.5 Water Sensitive Design (WSD)

Refer to *ATCOP Chapter 17 Road Drainage*, which contains AT's Guidelines on Stormwater in the Road Reserve and provides detailed guidance on the provision and design of Low Impact Design (LID) and Water Sensitive Design (WSD) features within the street and their integration with other elements.

Hard Surface Treatments

Footpath Surfaces

Ground surface treatments are the 'floor' of the public realm and footpath surfaces have a big impact on the use, look and feel of the pedestrian environment. Footpath materials can be either standard asphalt or concrete, or non-standard materials in special areas. Examples of non-

standard materials are: natural stone or other unit pavers, which should be used to relate to established or proposed material palletes or provide special design treatments.

In considering non-standard treatments, design teams should consider how the look and feel of materials relate to the overall palette of materials and street furniture in an area. Non-standard materials should be discussed with Auckland Transport at an early stage and will require AT's approval.

Refer to *ATCOP Chapter 12 Footpaths and Pedestrian Facilities* for engineering guidance and standards on footpaths.

Refer to *ATCOP Chapter 4 Road Classification* for requirements around provision of footpath locations.

Grates

Grates for drainage channels and for ventilation may have a functional need to be located in the footpath but are generally found in the carriageway.

The placement and detailed design of grates, as well as quality materials and construction, is important to the safety and appearance of the walkable surface within the street.

Refer to *ATCOP Chapter 17 Road Drainage* for technical guidance on footpath drainage.

Kerb and Channel

Kerbs and channels may seem like small details, but the presence of kerbs and channels (and the dimensions, materials and construction techniques) does play an important role in delineating the edge of the pedestrian environment and has a significant impact on the appearance and function of the streetscape.

Refer to *ATCOP Chapter 7 Road Layout and Geometric Design (Section 7.7 Kerb and channel)*, *Chapter 17 Road Drainage* and *Chapter 12 Footpaths and Pedestrian Facilities* for specifications.

Raised Medians

Raised medians are areas that separate traffic lanes within the carriageway. The width as well as the design of medians can vary widely. They can range from narrow raised concrete traffic islands to intensively planted median dividers and tree-lined boulevard-style medians on broad multi-lane streets.

Raised medians can have either positive or negative effects on the streetscape amenity depending on the type of median, street activity and environmental context. In particular they may have benefits or disadvantages to pedestrian street users, which can vary widely depending on the type of raised median proposed as well as the street context including pedestrian movements and activity patterns, and adjacent land uses.

Refer to ATCOP *Chapter 4 Road Classification and Chapter 7 Road Layout and Geometric Design* regarding the provision of raised medians, to *Chapter 12 Landscaping for planting in raised medians*, as well as *Chapter 8 Traffic Calming Devices and Chapter 12 Footpaths and Pedestrian Facilities*.

Road Markings

Road markings are the lines, words, symbols and other markings applied to or attached to the road pavement for controlling, warning, guiding and informing the road user.

The extent of road markings has tended to increase over time as traffic volumes and engineering complexity of road design have grown.

Excessive use of road markings, as well as signage, should be avoided as it can detract from the street amenity, especially in special areas such as areas of high pedestrian priority or rural areas.

Refer to *ATCOP Chapter 10, Sections 10.1 and 10.3 Road Markings* for technical guidance.

Tactile Indicators

Tactile Paving or Tactile Ground Surface Indicators (TGSIs) are an important additional streetscape element to assist with universal accessibility in streets with high pedestrian activity or other areas where high levels of universal access and mobility are required. They provide visual and sensory information that assists people with vision impairment by warning them of the kerb and potential hazards beyond it.

Refer to *ATCOP Chapter 12 Footpaths and Pedestrian Facilities, Section 12.9 TGSIs*.

Pedestrian Crossings

Grade-Separated Pedestrian Crossings

Grade-separated pedestrian crossings include overbridges and underpasses. They may also provide for cyclists.

Grade-separated crossings generally represent significant inconvenience to pedestrians, diverting movement from desire lines and increasing crossing times. There are also safety and personal security concerns, especially with underpasses. It is critical that these issues are carefully considered and addressed by design teams.

Refer to *ATCOP Chapter 18 Structures* for further requirements.

Controlled Crossings and Pedestrian Refuge Islands

Refer to *ATCOP Chapter 12 Footpath and Pedestrian Facilities*.

Uncontrolled Crossings and Pedestrian Refuge Islands

Refer to *ATCOP Chapter 12 Footpath and Pedestrian Facilities*.

Raised Tables

Raised tables are intersections or crossing points raised above the level of the surrounding carriageway, typically to footpath height to create continuity between footpaths on either side of the crossing. They can be part of controlled or uncontrolled crossings.

Raised tables and crossings seek to achieve a combination of objectives, in particular, providing for easier pedestrian movement by raising carriageway level up to footpath level, slowing vehicle speeds by reducing corner radii and deterring parking close to junctions by narrowing the carriageway.

The primary purpose of raised tables should be to enhance pedestrian accessibility and priority rather than lowering vehicle speed. They should be designed with this in mind. This means shallower rather than steeply raised tables and crossings are preferable to more readily integrate with the surrounding streetscape environment and avoid becoming seen as an undesirable object of physical or visual clutter.

Engineering requirements for raised tables are found in *ATCOP Chapter 8 Traffic Calming Devices*.

Refer also *ATCOP Chapter 12 Footpaths and Pedestrian Facilities*.

Utilities

6.4.2.6 Power Poles

Introduction

Power poles are the property of the utility provider but must be placed in accordance with ATCOP requirements.

Their placement must comply with the required standards indicated below.

New power supply should be provided underground rather than overhead. Refer to Underground Service requirements later in this section.

Provision

Power supply is essential and network supply is generally accommodated along road reserves. Currently provision is primarily via overhead powerlines held up by power poles at regular intervals. New works are expected to be provided via safely installed underground powerlines/conduits.

Placement

Power poles should be placed within the street furniture zone parallel to the kerb. Placement of powerpoles must comply with the minimum setback requirement of 700 mm from the kerb face to



the near side of the pole as indicated in *ATCOP Chapter 19 Street Lighting*. Poles should, however, not be placed in the footpath in a manner that they impose upon the minimum allowable 1.8m Through Route (2.4m in town centres etc.) or footpath width or cause an obstruction to pedestrians.

In all instances consideration should be given to avoiding unnecessary obstruction to pedestrians, particularly to pedestrians waiting to cross at busy or constrained intersections in the city centre and other centres.

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Design Considerations

There is opportunity for the development of a more aesthetically pleasing standard pole that meets functional needs that could replace existing poles and be installed along streets where undergrounding is not possible/feasible.

Use of shared underground infrastructure should be considered.

Links and References

ATCOP Chapter 19 Street Lighting

ATCOP Chapter 26 Corridor Access Management

6.4.2.7 Service Covers

Introduction

Service Inspection covers are often located in the footpath to meet a functional need. Care must be taken to ensure their placement is integrated with the design of footpath surfaces and that their installation does not pose an obstacle or trip hazard for pedestrians.

Responsibility

Utility companies own the majority of these that appear on the public street. A small proportion are owned by Auckland Transport and relate to traffic signalling and street lighting.

Installation and maintenance of service covers is generally the responsibility of the service owner. However, where Auckland Transport installs inset covers, Auckland Transport will assume maintenance responsibility for the cover from that day forward.

Provision

Provision of all service covers is to be in accordance with The Code of Practice for Working in the Road.

The utility company mainly predetermines the size and location of their access points to suit their purposes. If not co-ordinated with the layout of footpaths at the detailed design and construction stage they often detract from the quality and appearance of footpath surfaces.

The use of deep frames for utility access can achieve greater consistency of footpath surface materials.

The use of inset covers helps to hide the presence of service inspection covers. The cost of these covers and their future maintenance will need to be borne by Auckland Transport. Inset covers will therefore only be justified to allow for tactile paving or in areas of high quality paving such as natural stone where there is a particular case for consistency.

In the city centre, paved infill service chamber covers are to be used in all paved footpaths to conceal the presence of inspection covers, with the exception of water hydrants, water and gas isolation valves and meter boxes. (Refer to technical guidance for service chamber covers in the *CBD Great Streets Guide*).

Placement

Design teams should seek to align the orientation of the edges of a cover with the alignment of footpath geometry, including kerb lines, cut lines in concrete footpaths and the bond employed on paved footpath surfaces.

Attention given to the detailing around covers can have a considerable effect on the safety and appearance of the footpath and needs to be carefully described on construction drawings and details.

Design teams should ensure that the footpath surface neatly abuts the edge of the cover frame to avoid the need for unsightly mortar infill. Where the structure of the frame is such that this cannot be achieved with rigid surfacing materials, the below ground masonry should be lowered and replaced with a deep frame to give increased depth. This allows close laying of the footpath material, and the retention of the shallow infill cover.

Paved Infill Service Chamber Covers are to be orientated where possible to align the edge of the cover with that of the paving bond to ensure a neat appearance and avoidance of small cut paving elements or mortar joints.

Care must be taken to ensure the installation of service covers does not pose an obstacle or tripping hazard.

Special care is needed in the detailing of rigid footpath surfaces that contain inspection covers where changes in level occur, particularly where dropped kerbs are required. Rigid access covers cannot be made to fall in two directions (unlike flexible surfaces) and therefore careful consideration must be given to where rigid surfaces are folded.

Access to chambers must not be impeded by the location of street furniture.

Design Considerations

Markings

Service covers are to be branded and painted as follows:

- Fire Hydrant: FH and painted yellow
- Water Valve: V and painted white
- Water Meter: METER, unpainted

Materials and Finishes

Service Covers that are not inset should be metallic surface boxes or similar approved items.



Good Practice

Links and References

Code of Practice for Working in the Road (Auckland Utility Operators Group 2003)

Great Streets A Streetscape Design Guide for the CBD Individual Streetscape Element Technical Guidance – 14.3 N3 Service Chamber Covers – Paved Infill and N4 Service Covers.

6.4.2.8 *Underground Services*

Introduction

This advice does not address provision of utilities, but covers placement and design considerations only in relation to other elements within the streetscape.

In addition to underground services, overhead wires can have a big impact on the ability to achieve street trees of scale as well as adding visual clutter to street environments. Wherever possible, the undergrounding of electricity lines within the footpath will benefit existing or proposed street trees, as well as creating an uncluttered visual environment.

Refer to *ATCOP Chapter 26 Corridor Access Management* and *ATCOP Chapter 7 Road Layout and Geometric Design (Section 7.4.9 Footpaths and berms and Plan No. GD005)*.

Placement

Pedestrian Signage

The most appropriate location for underground utilities is under the footpath to avoid conflicts with street trees within grass berms.

This is often not the case in existing streets across Auckland and this has led to conflicts with existing street trees.

Design teams should consider the possibility of co-locating utilities in common trenches in the design and delivery of new streets and upgrade projects. A common trench design is being developed.

Manholes and other service access covers and grates should ideally be located within the street furniture zone outside of the through-route

Detailed placement should be aligned and co-ordinated with the geometry, detailed design and construction of pavements to ensure close physical integration and minimise visual intrusion within the finished works.

Good Practice

Stonefields Residential Subdivision, Mt Wellington [photo to be provided]

Links and References

Code of Practice for Working in the Road

6.4.2.9 Utility Cabinets

Introduction

Provision

Poorly located utility cabinets can create obstructions in the footpath and add clutter to the streetscape.

It is therefore important when design teams undertake a streetscape review that the obstruction and visual intrusion of any existing cabinets and the potential to relocate them to less obtrusive locations is considered.

The installation of new utility cabinets should follow the guidance on placement and consider materials and finishes as below.

This guidance sets out good practice in relation to the placement of utility cabinets in relation to other streetscape elements, their impact on pedestrian movement and their visual impact within the streetscape. Refer to *ATCOP Chapter 26 Corridor Access Management* for technical details in relation to Utility Cabinets.

Placement

Traffic Signal Control Boxes

Signal control boxes are required to be placed in proximity to the signalised intersection, which can create clutter or obstruct pedestrian movement if not placed with care.

Other utility cabinets including lighting control boxes, electricity transformers, telecommunication cabinets and antennae have more variable location requirement by operators, who are usually independent parties. Refer also to *ATCOP Chapter 7 Section 7.11.5 Traffic Signal Requirements* and *ATCOP Chapter 27 Traffic Network Management*.

Design teams should consider the best placement of signal control boxes to minimise their physical and visual impact on the streetscape. It may sometimes be appropriate to place control boxes at the back of the street in the property Frontage Zone.

All other utility cabinets should be placed in the property zone against the building wall/property boundary wherever possible to avoid clutter in the Street Furniture Zone or conflict with the Through Route.

Where not possible, they should be placed within the street furniture zone parallel to the kerb. It is important that minimum clearance requirements from kerbs for roadside hazards do not result in the placement of utility cabinets within the Through Route which must be kept clear of all obstacles.

In all instances consideration should be given to avoiding unnecessary obstruction to pedestrians, particularly to pedestrians waiting to cross at busy or constrained intersections in the city centre



and other centres. Cabinets should also not mask pedestrians from approaching vehicles or obstruct access to and use of other street furniture items.

Where control boxes are to be placed against buildings or property boundaries they should not obstruct private property including doorways, accessways or shop windows, or cause a hazard to pedestrians.

Design Considerations

Materials and Finishes

Control boxes are large and bulky items that can have a big visual impact on the streetscape, especially when placed kerbside on narrower footpaths.

Materials and finishes, particularly the colours of existing control boxes in Auckland vary (e.g. pale green ones) and do not always assist with the integration of these items with the look and feel of other street furniture. As a consequence they often stand out and detract from the streetscape amenity.

The materials, colours and finishes of cabinets should be consistent with the rest of the street furniture palette in the locality e.g. in the city centre stainless steel units are now being used

Screen Planting

It may be appropriate to propose screen planting to mitigate the visual impact of unsightly antennae or other utility equipment. Any such planting should take into consideration sightlines for pedestrians and motorists and avoid any potential safety issues. Mitigation planting where proposed should form part of the relevant Auckland Transport approvals.

Good Practice

Queen Street, City Centre



Example of utility box located back against an inactive part of the building frontage. The box is in stainless steel to match the street furniture palette used elsewhere.

6.4.2.10 Poor Practice

Albert & Victoria Streets, City Centre



Example of poorly located signal control box that blocks the corner where pedestrians wait to cross the intersection.

Fanshawe Street, City Centre



Poorly aligned and co-ordinated placement and cluttering of utility cabinets within the footpath detracts from pedestrian amenity.

Links and References

ATCOP Chapter 26 Road Corridor Access: Utility Cabinets

Traffic Related Streetscape Components

6.4.6.1 Bollards

Introduction

Bollards are primarily a safety element to separate pedestrians or streetscape elements from vehicles.

Their use should be restricted to avoid clutter and unnecessary obstacles to pedestrians and cyclists.

Bollards should only ever be used as a last resort.

Refer to *ATCOP Chapter 9 Road Restraint Devices, Chapter 13 Cycle infrastructure Design, Chapter 12 Footpaths and Pedestrian Facilities and Chapter 8 Traffic Calming Devices.*

6.4.6.2 Driveway Crossing Signage

Introduction

Driveway Crossing Signage, which advises pedestrians to “Watch for Exiting Cars” or “Car Coming”, are a currently encountered across Auckland. This type of signage undermines the New Zealand Road Code which clearly states that motorists must give way to pedestrians on the footpath including driveway crossings.

A better alternative is the use of warning signage that advises motorists to give way to pedestrians.

Provision

It appears that there are no rules which govern the use of these signs.

Auckland Transport does not support the implementation of pedestrian warning devices or signage that does not comply with the Land Transport Rule: Traffic Control Devices 2004 (TCD Rule) and the New Zealand Road Code. Non-compliant pedestrian warning devices or signage should not be installed and any such existing signage should be removed as part of any future redevelopment.

All driveways exiting on-site car parking must provide Give Way or Stop signs as appropriate and a rumble strip at the exit point - located within the private property.

Good Practice

Auckland Hospital, Park Road

Example of give way sign, warning sign and rumble strip at the exit of a recently developed carpark at Auckland Hospital, Park Road [photo to be provided]

Poor Practice

Federal Street, City Centre



Example of “car coming” warning sign, advising pedestrians of vehicle exit and undermining pedestrian priority on footpaths. These types of signs are not supported and are to be removed.

Active ongoing removal of existing unacceptable signs is required.



Links and References

This section will be supported by the provision of some drawings to show what standard AT will accept.

6.4.6.3 *Parking Meters*

Introduction

Parking meters are part of the pedestrian streetscape wherever there is paid on-street parking.

The provision of parking meters is entirely functional but can detract from the appearance of the street or use of the footpaths by pedestrians, particularly narrow streets - especially if care is not taken in their placement. Refer to *ATCOP Chapter 11 Parking*.

Provision

Provision of parking meters is overseen by Auckland Transport's Parking and Enforcement Department.

Parking and Enforcement is developing a guideline for the placement of equipment, which will be inserted as an update to ATCOP once it has been completed.

Generally parking meters should be placed within 50m of their related parking bays.

6.4.6.4 *Pedestrian Railings and Fences*

Pedestrian railings and fences provide a means of discouraging pedestrians from entering the carriageway. They can be used to perform a valuable corralling function by channelling pedestrians to a safer section of road where they can cross.

Notwithstanding their primary safety-related function, pedestrian fences can introduce the feeling of severance along sections of the network.

In addition, they may reinforce the feeling that these sections of the network support high speed traffic and therefore discourage pedestrian access.

Refer to *ATCOP Chapter 9 Road Restraint Devices*.

6.4.6.5 *Road Safety Barrier Systems*

Refer to *ATCOP Chapter 9 Road Restraint Devices*.

6.4.6.6 *Signage by othr parties*

ATCOP does not address non-traffic or pedestrian related signage within streets. Such signage is governed by a signs bylaw.

Nevertheless, the principles of minimising intrusion and clutter, considering and providing for pedestrian movement and desire lines still apply.



6.4.6.7 *Traffic Signals*

The design or modification of traffic signal controlled junctions and crossings are a specialist subject. Specific technical requirements are dealt with in *ATCOP Chapter 7 Section 7.11.5 Traffic Signal Requirements*.

6.4.6.8 *Traffic Signs*

Traffic signs are provided to give directional traffic and parking information and warning of potential hazards. Their use is governed by statutory requirements and national and Auckland Transport standards. Statutory requirements and detailed technical guidance on the provision and design of signage are dealt with in *ATCOP Chapter 10 Traffic Signs and Road Markings*.

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