Centres Detail Design Manual
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3B1.1 Overview

One of the aims of the Streetscape Hierarchy is to establish a standard palette of elements and materials. Footway widths and layouts vary with the street types, but the footway typically has the same components.

The public footway is an asset maintained by Brisbane City Council. Although it contributes to the setting of the adjacent building or land use, its primary function is as a public footway. Therefore its layout and finishes are to be in accordance with this manual or other Council standards where these do not apply.

Non-standard footway surfacing and furniture outcomes on the public footway, such as the continuation of materials used on the adjacent private property, is not acceptable.

The Standard Footway Elements cross-sections for locations in and out of Centres illustrate the layout of elements in typical public footways in Brisbane.

This section includes guidance on the following footway elements and materials:

- 3B2. Paving
- 3B3. Street Tree Planting
- 3B4. Street Furniture
- 3B5. Awnings
- 3B6. Footpath Dining
- 3B7. Public Art

The technical drawings and specifications for elements and materials are covered by Council’s Standard Drawing and Reference Specifications.

**Standard Footway Elements – in Centre with Furniture**

- **LANDSCAPING/ STREET TREES**
  - (Part of Development Application or permit for landscape works within the footway)

- **FURNITURE**
  - (Part of Development Application or permit for landscape works within the footway)

- **OTHER ELEMENTS**
  - Tables, chairs, blackboard menus, etc. (Associated with Footpath Dining Permit)

- **FOOTWAY SURFACE**
  - (Permit for landscape works within the footway required)

**Standard Footway Elements – in Centre with Footpath Dining**

- **LANDSCAPING/ STREET TREES**
  - (Part of Development Application or permit for landscape works within the footway)

- **AWNINGS**
  - (Development Approval and/or Building Approval required for proposals in Centres.

- **FOOTWAY SURFACE**
  - (Permit for landscape works within the footway required. Refer to these guidelines)

- **FOOTPATH DINING**
  - (Permit required)

- **OTHER ELEMENTS**
  - Tables, chairs, blackboard menus, etc. (Associated with Footpath Dining Permit)

- **KERB REALIGNMENT AND BUILD-OUT**
  - (Permit for landscape works within the footway required)
3B2. Paving

3B2.1 Aim

Paving in the public footway will provide a surface for pedestrian traffic and contribute to the streetscape’s backdrop. It is not intended to be a prominent element. Emphasis in the streetscape is placed on the vertical elements including built form, trees and furniture.

The materials selected for the streetscape types reflect the relative importance of the street in the streetscape hierarchy, to ensure that the most appropriate materials are used – aesthetically, economically, environmentally and for maintenance.

3B2.2 Public Footway Widening in Private Ownership

In some localities, a building setback will provide a section of widened footway inside of the original property boundary. It will be retained in private ownership but be available for use as a wider public footway. In these locations, the private area acting as a public footway is to be paved in the same material as the public footway, to ensure that the full footway width is read as being publicly accessible.

3B2.3 Public/Private Interface

Paving on private property adjacent to the public footway may be selected to suit the private development. Paving materials used on private property must not extend across the public footway. The layout and junction of materials is to be physically and visually coordinated at the public - private interface.

3B2.4 Basement Incursions

Where basements are permitted to extend beneath the public footway, the footway pavement and basement are to be designed in accordance with Council standards.

3B2.5 Corners – Intersection of Footways

There will be locations where Citywide Streetscape types – including layout, materials and elements will vary at the corner where two street types intersect. Where this occurs, normally the higher order of street type will take precedence and its layout will wrap around the corner into the minor order street. The extent and detail of the treatment wrapping around the corner will vary. It is to be agreed through the development assessment process on a site-by site basis, to suit the layout of the footway and the adjacent building.

3B2.6 Unified Palette

The footway surfacing materials and patterns are intended to be simple and unifying, and where appropriate, materials have been selected to build on existing finishes. Wherever possible, they have been simplified to minimise the dating of finishes and for ease of maintenance.

3B2.7 Scope Of Paving Works

All footway works are to provide new pavement finishes, new or reinstated kerb and channel, driveways, pedestrian kerb crossings, tactile paving, rooftop drainage line connections and service pit lids, in accordance with this manual.

Footway Surfacing Materials: Paving materials approved for use in the public footway in the Citywide Streetscape Hierarchy are honed and sawcut, exposed aggregate and broom finished concrete. In other locations covered by this manual, concrete and stone unit paving, concrete and asphalt are approved for use. All footway surfacing works are to be undertaken in accordance with Council standards.

To determine the paving materials approved for use in a particular location, refer to the Chapter 2 Locality Advice of this manual.

Footway Surfacing Pattern: Footways will be constructed in a single paving material, as specified for a particular locality. Where patterns and trims are permitted, they will be specified by locality.

3B2.8 Permeable and Porous Pavement

Stormwater flows from impervious/developed areas (eg. footways, roads) are recognised as a major pressure on waterway health. Unless properly managed, urban stormwater can significantly increase pollution (eg. sediments, nutrients) within Brisbane’s waterways. Water Sensitive Urban Design (WSUD) strategies to significantly reduce stormwater pollutant loads being discharged downstream must be investigated for integration into footways and capital works projects.

There are several opportunities available to achieve this, such as bio-retention ‘tree pits’ and ‘tree trenches’. Permeable and porous pavement can be a suitable alternative to impervious pavement materials and can assist in improving/maintaining downstream waterway health. For further information in relation to the use of permeable and porous pavement, refer to relevant Council standards.

Locations for porous pavement are to be negotiated in conjunction with Council on a site-by-site basis.
**Line and Level:** Council will not allow the resolution of levels for access to buildings or flood mitigation to be undertaken in the public footway.

The public footway is to be free of steps, ramps and trip hazards.

Footway design is to achieve a uniform longitudinal gradient along the full length of the footway and to tie in with the existing line and level of adjacent footways and kerb.

A crossfall of 1:50 is desirable on the public footway. Where this cannot be achieved a maximum crossfall up to 1:40 will be permitted. Where existing conditions within the public footway prevent the establishment of this maximum crossfall, Council will consider the footway design on a site-by-site basis.

**Tactile Markers:** Tactile ground surface indicators are to be provided at the edge of driveways and top of kerb ramps in accordance with the relevant Council standards. Tactile markers to be inlay pavers or approved equivalent, depending on the locality.

Where the installation of tactile indicators is in conflict with pit locations, they will be assessed on a site-by-site basis.

**Roofwater Drainage Lines:** Roofwater from private properties and bus shelters shall discharge to a stormwater pipe or gully, in accordance with Council’s drainage requirements. Where this is not feasible, roofwater may be discharged into the kerb and channel.

Where there is no existing stone kerbing, precast concrete kerb and channel are to be provided depending on the Streetscape Hierarchy type and location.

**Kerb and Channel:** Throughout the city there are locations with existing Brisbane tuff or granite kerbstones (Refer to Section 4D Heritage Kerbs) and in some locations there are stone crossovers and stone channels. Where heritage kerbstones, crossovers and channels are existing, they are to be retained and repaired as required. Where there are gaps in the existing stone kerb along a frontage, the gaps are to be filled with stone kerb units (Brisbane tuff or granite) to match existing (Refer to Section 4D Heritage Kerbs in Chapter 4 Technical Details of this manual).

Where there is no existing stone kerbing, precast concrete kerbs or in situ concrete kerb and channel are to be provided depending on the Streetscape Hierarchy type and location.

**Double Kerb and Channel:** Council has developed a special kerb block that may be used (with Council approval) in situations where the existing road level is considerably higher than the proposed footway level.

**Pedestrian Kerb Ramps:** In order to maximise visibility, kerb ramps are to be constructed of plain broom-finished concrete.

Kerb ramp locations must be approved prior to any excavation. Kerb ramps are to:

- face the direction of travel where possible; and
- be located to suit the line of pedestrian flow and position of the signal button (where existing).

**Driveways/Vehicle Cross-Overs:** In order to reflect pedestrian priority over vehicles, footway surfacing materials shall extend across the driveway/vehicle crossover. Except where the footway surfacing is asphalt, the driveway/vehicle crossover shall be constructed of plain broom-finished concrete.

**Service Pit Lids:** Where service pit lids are located in the public footway, they are required to be black cast iron construction, manufactured to AS 3996: 2006 ‘Class B’ specifications (suitable for occasional vehicle use), with slip resistance qualities as specified in AS/NZS 4586: 2004 and AS/NZS 4663: 2004. In relation to load rating, pit lids are to be manufactured to AS3996:2006 Class C (suitable for driveways & roadway use).
3B3. Street Tree Planting

3B3.1 Aim

Significant subtropical street tree planting is to be undertaken as part of any footway upgrade. Species and layout are detailed by streetscape type to ensure that they are complementary to the scale and function of the footway and street corridor.

Street tree planting will provide increased shade, legibility of routes, softening of the urban landscape and add colour and visual interest.

These Street Tree Planting guidelines will contribute to achieving an increase in the number of street trees in the city, to provide 50% shade cover to footways.

3B3.2 Existing Street Trees

Existing street trees are to be retained and protected unless removal is negotiated with and approved by Council. Replacement street tree planting to achieve Council policy of no net canopy area loss will apply.

Council has the authority to penalise against unlawful removal, pruning or damage to street trees on Council controlled or owned land.

Applicants should make arrangements with the relevant Council Compliance and Regulatory Services Team to accommodate hoardings, gantries and any other construction works proposed around existing street trees.

3B3.3 Street Tree Species

Informal street tree planting will be promoted in Brisbane. The streetscape will be characterised by a mix of tree species planted in singles, pairs and/or groups.

The Subtropical Boulevard is a citywide outcome. (Refer to Section 3A Citywide Streetscape Hierarchy of the Streetscape Design Chapter, for the standard palette of preferred species for trees and groundcovers to be used on a citywide basis). Where a Subtropical Boulevard passes through a locality area, neighbourhood locality species will be identified.

Refer to the Chapter 2 Locality Advice of this manual for location specific advice.

Street tree species for all other streetscape types and locations will be as per guidance by the Landscape Architect - Development Assessment and Asset Services on a site-by-site basis.
3B. Street Tree Planting

3B3. Street Tree Layout

Where a building frontage has space for more than one street tree, an informal arrangement of species is to be provided to suit the site conditions. The final alignment of trees along and across a footway will be determined by:

- the streetscape type;
- clearances to Council Standards;
- locations of above and below ground services;
- awning layout;
- building entrances; and
- retention or enhancement of significant views and vistas.

Trees are to be setback a minimum 750mm from the nominal face of kerb.

3B3.4 Street Tree Layout

3B3.5 Tree Spacing

The street tree layout is to be tailored on a site-by-site basis to reflect site conditions. The following spacing is to be used as a guide.

**Street Trees in Singles, Pairs and Clusters**

Single Trees to be planted at minimum 6m spacing. Clusters and pairs of trees at minimum 2m centres.

**Large Crown Feature Trees at Gateways and Corners**

Large Crown Feature trees to be planted in areas no smaller than 7 x 6m, at minimum 10m spacing.

**Upright Feature Trees at Gateways and Corners**

Upright Feature trees to be planted in areas no smaller than 5 x 5m. Individual trees to be planted at minimum 10m centres. Where space permits, trees may be planted in feature groups at minimum 5m centres.

Council standards apply to exclusion zones for street tree planting.

3B3.6 Deep Planting

All trees in the public footway are to be planted in natural ground containing a subsoil layer. It is the responsibility of the applicant to ensure that all proposed street trees do not conflict with existing services.

Planting on the public footway does not contribute to the calculation of planting in natural ground required on private property.

3B3.7 WSUD (Water Sensitive Urban Design)

‘Water Sensitive Urban Design’ strategies to significantly reduce stormwater pollutant loads being discharged downstream are to be investigated in all footways and road capital works projects.

There are several opportunities available to achieve this, such as permeable and porous pavement and gully baskets. In particular, the standard design of streetscape tree pits, tree trenches and garden beds can be easily modified to ensure these assets significantly reduce stormwater pollutant loads being discharged downstream.

Application of WSUD strategies in a particular location is to be agreed with Council on a site-by-site basis.

3B3.8 Tree Trenches

Tree trenches, rather than tree pits, are the most preferred planting detail to achieve adequate quality and quantity of root growth space for trees to provide their optimum benefits. Council has designed three (3) types of tree trench to suit plantings of more than two (2) trees in various situations. Council will advise which type is most suitable on a site-by-site basis.

3B3.9 Garden Beds, Tree Grates and Permeable/Porous Paving

The streetscape type will indicate whether trees are to be planted in garden beds, grates or permeable and porous paving. (For location specific details refer to Chapter 2 Locality Advice in this manual.)

3B3.10 Climbers

Climbers may be used at the rear of the public footway, where they are planted and provided with support on private property.

3B3.11 Plant Species

Street tree, shrub and groundcover species are nominated for different streets in the relevant locality.

3B3.12 Plant Stock

All trees are to be advanced stock material, and conforming to Council’s ‘Nursery Stock Quality for Landscape Trees’; or ‘NATSPEC Specifying Trees – Ross Clark’ and as follows:

- Street Trees must be a minimum of 3.5m high; and
- Feature Trees must be a minimum of 5m high when planted.

All trees to have a minimum clear trunk of 1.8m measured from the top of tree grate, porous paving or finished soil level where planted in garden beds, to the lowest branch.
3B4. Street Furniture

3B4.1 General

Furniture Range
A furniture suite is utilised in public footways throughout Brisbane. Furniture elements include a seat, rubbish bins, tree grate and guard, drinking fountain, pedestrian pole-top light, a bollard and bicycle rack. The provision of street furniture is subject to the approval of the relevant Development Assessment Landscape Architect.

Locations
Not all footways require street furniture. Citywide streetscape types indicate street furniture requirements and acceptable layouts. Where required, furniture is to be located to minimise clutter and provided in locations that are conducive to its use, with layouts to be agreed on a site-by-site basis. Normally furniture is to be located in the zone at the rear of kerb, allowing for clear pedestrian flow.

Setout and Clearances
To avoid conflict with traffic, all furniture must be located a minimum of 600mm from nominal face of kerb. Additionally, adjacent items must be appropriately spaced, to allow for ease of movement between them.

Colour and Finish
Tree grates, are to be texture powdercoated in:

- Interpon D1000 Sable Bass Texture GN297A.

All other non stainless steel metal furniture or furniture components (excluding tree grates) shall be powdercoated in a single colour:

- Dulux 'Metropolis Storm Pearl' (Code 84684) Satin.

Exceptions also include those localities within Chapter 2 Locality Advice, where furniture colour is already established. In these locations new furniture is required to match the existing.

All stainless steel furniture is to be manufactured in 316 grade stainless steel, and finished with a No.4 finish, with surface roughness (Ra) to be less than 0.5 micrometers.

Fixing
All items shall be surface-mounted to allow for flexibility in the locations of furniture, ease of replacement and installation after completion of other civil works. Surface mounting bolts shall penetrate directly through the concrete slab or through the unit paving and mortar bed (where relevant) into the concrete slab.

Sourcing
All enquiries regarding the sourcing, supply and installation of street furniture items listed below should be directed to the relevant Development Assessment Landscape Architect on 3403 8888.

3B4.2 Furniture Elements

Bench Seat
The bench seat is a robust, familiar and physically comfortable item with a contoured timber surface. The seat includes a flexible leg detail that allows for a moderate height adjustment to cater for uneven surfaces (125mm max).

The seat foot location is laterally adjustable to suit different paving modules or subsurface conditions. It is to be located parallel with the kerb, facing away from traffic and adjacent to street trees.

Materials and Finishes:
- Powdercoated galvanised mild steel frame.
- Hardwood timber slats to be sourced from plantation or sustainably harvested sources.
- Timber to be finished in ‘Bunnings Jarrah’ stain.

Fixings:
- Surface mounted – fixed with 10mm diameter x 150mm long expansion bolts and acorn nuts.

Urban Stool
An urban stool is a small precast concrete stool suitable for installation in a number of configurations on the pavement. Typically they are installed in groups of two to four.

Materials and finishes:
- Precast concrete construction finished in Kolormasts ‘Raven’ honed or approved alternative.

Fixings:
- 20mm diameter galvanised threaded rod fixed into stool and chemset into concrete pavement.
Tree Grate
Designed to allow the penetration of air and water to the soil, while minimising trip and slip hazards and rubbish trapping properties. All tree grates require a metal support frame to be installed in the footway at the time of construction, and are to include laser cut "T" sections to accommodate tree guards. Tree grates shall be tailored to cater for existing ‘off centre’ tree trunks as required.

Materials and sizes:
- Laser cut and powdercoated galvanised steel.
- Tree grates are available in two sizes: 1600 x 1600mm and 1600 x 1200mm. Preference is given to the 1600 x 1600mm tree grate where space permits.

Fixings:
- Grates are fixed to the frame by cam-locks in all corners. Frame fixed into footway surface.

Tree Guard
Designed for compatibility with tree grates. An adjustable foot fixing allows the guard to be set vertically on sloping terrain. The requirement for tree guards is to be agreed with Council on a site-by-site basis. They will only be required in association with tree grates, and normally in locations where there are high pedestrian traffic flows.

Materials:
- Powdercoated galvanised mild steel and garnet blasted stainless steel ‘Logo Panel’.

Fixings:
- Tree guards are fixed to tree grates with stainless steel bolts and lock nuts.

Rubbish Bin – 240L dual bin
The 240L dual bin is designed to provide large capacity rubbish disposal and recycling facilities in a single unit. These units are to be provided with two butt-bin attachments to create an all purpose public waste disposal facility.

Fixings:
- Surface mounted – Stainless steel base plate
- 240L dual bins will generally be required in locations that cater for larger pedestrian traffic volumes, and are to be located parallel with the kerb, facing away from vehicular traffic.

Within the CBD, new developments must install a 240L Waste and 240L Recycling dual bin, unless otherwise instructed by a BCC officer to install an alternative configuration or capacity bin as determined by Council. 240L dual bins are to be located within 25m of intersections on all street frontages.

The bins are modular and can be installed as singles, duals or multiples. Additional designs housing 120L and 340L wheelie bin inserts are also available and their requirement will be determined on a site-by-site basis.

Materials:
- Powdercoated cast aluminium body.
- Aluminium butt-bin, Metal bin liner

Fixings:
- Surface mounted - fixed with 4 x 10mm diameter x 150mm long expansion bolts and acorn nuts.

Mini bin - 140L
The mini bin is designed to provide a 140L capacity rubbish disposal in a single unit, is required in locations that cater for low pedestrian traffic volumes, and is to be located parallel with the kerb, facing away from vehicular traffic. They are installed in select locations as part of new developments.

Materials:
- Stainless steel frame and powdercoated aluminium panels, an aluminium butt-bin, and metal bin liner

Fixings:
- Surface mounted - fixed with 4 x 10mm diameter x 150mm long expansion bolts and acorn nuts

Bollard
Bollard to be simple cylindrical form with flat top to 1m high. Bollards to be provided on a site-by-site basis as required to control vehicle movements. Maximum spacing of 1.4m.

Material:
- 316 grade stainless steel and its finish is 600 grit polish/garnet blasted

Fixings:
- Fixed bollard – surface mounted to rag bolt cage cast into concrete pavement

Removable bollard – surface mounted to removable bollard case set in concrete pavement.

Bike Rack
To be provided on a site-by-site basis in locations as required by the development approval.

Material:
- 316 grade stainless steel and its finish is to be 600 grit polish/garnet blasted.

Fixings:
- Surface mounted – Stainless steel base plate fixed with 4 x 10mm diameter x 150mm long expansion bolts and acorn nuts.

Pedestrian Lighting
Preference is given to under awning lighting. Where there are no awnings, pole top pedestrian lights are to be provided.

Materials:
- Pole top lighting is powder-coated galvanised mild steel pole and luminaire and a stainless steel logo badge

Fixings:
- M16 rag-bolt cage and hex nut assembly in a concrete slab.

Drinking Fountain
Where required, type and location of accessible drinking fountain to be agreed on a site-by-site basis.

Materials:
- 316 stainless steel natural colour, 600 grit polish/garnet blasted or highly polished as specified.

Fixings:
- Surface mounted to rag bolt cage cast into concrete pavement

Up-lighting in Footway
Up-lighting will not be permitted in the public footway, except where it is required to illuminate public art located in the footway. Such treatments will be agreed on a site-by-site basis.

Bus Shelters
Where required the location, shelter type and installation of bus shelters is to be agreed with Council on a site-by-site basis.

Balustrade
Will not normally be permitted, except where Council advises that it is required to manage pedestrian movements.
3B5. Awnings

Awnings are the most effective means of providing shelter over footways for pedestrians. An awning is any structure that is attached to a building and spans above and across the footway. The Streetscape Hierarchy nominates street types where continuous awnings are required.

Localities will nominate where non-continuous awnings at entrances are acceptable.

For further guidance on awnings, refer to Section 4A Pedestrian Shelter of Chapter 4 Technical Details Chapter of this manual and the relevant Council Codes.

3B5.1 Footway Overhangs and Volumetric Subdivision

In some locations, building components may be permitted to extend over the public footway by use of a volumetric subdivision, particularly where land has been dedicated to Council to provide a widened footway. These building components are not awnings. They are permitted where nominated in localities, with detail to be agreed on a site-by-site basis.
Footpath dining makes an important contribution to the vitality of Brisbane streets, where there are suitable footway conditions and high amenity present.

In some streetscape types these conditions do not exist due to narrow footways and/or high levels of pedestrian or vehicular traffic.

Footpath dining may only be undertaken in locations, where a Footpath Dining Permit has been obtained, in accordance with the relevant Local Laws.
Where public art is required in particular locations, refer to the relevant Locality in Chapter 2 Locality Advice of this manual.

Applicants required as a condition of development to contribute to public artworks within publicly accessible locations, are also to consult the Developer Handbook – Percent for Art Contribution (refer to Section 4C Public Art of the Technical Details Chapter of this manual).

For further information contact the Public Art Officer on 3403 8888.