



City of
Wanneroo

PART 2
Streetscapes and Public
Access Ways Landscape
Design Specification

June 2015

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1.

Scope

- 1.1 The work to be executed under this specification consists of the design of landscape in streetscapes, road reserves and public access ways. This specification outlines the standards that have been traditionally used in landscape design within the City of Wanneroo. Should designers wish to submit designs with alternative specifications, they should clearly demonstrate that it meets the performance criteria acceptable to the City of Wanneroo as follows:
- Technical Standards (compliance with Australian Standards & Industry Guidelines)
 - Safety
 - Environmental compatibility
 - Amenity
 - Accessibility and convenience
 - Economy (Efficient capital development that can be accommodated within City of Wanneroo budgets, effective asset management & maintenance)

2. Objectives

- 2.1 The intention of this Specification is to provide Developers, Landscape Architects and Landscape Designers with guidance regarding City of Wanneroo's compliance standards concerning streetscape, road reserves and public access way landscape design. There may be additional requirements of a more site-specific nature which are not covered in this specification. It is recommended that the City of Wanneroo is contacted at concept design stage to discuss the various conditions which may form part of the approval process.

3. Reference and Source Documents

- 3.1 This specification is to be read in conjunction with the requirements in the following documents:
- IPWEA - Local Government Guidelines for Subdivisional Development
 - City of Wanneroo District Planning Scheme No. 2
 - City of Wanneroo Local Planning Policy 4.3: Public Open Space
 - City of Wanneroo Local Planning Policy 4.1: Wetlands
 - City of Wanneroo Local Planning Policy: Signs
 - City of Wanneroo Local Planning Policy 4.8: Tree Preservation Policy
 - City of Wanneroo Street Tree Masterplan
 - City of Wanneroo Verge Treatment Guidelines
 - City of Wanneroo Design Specification WD5: Stormwater Drainage Design
 - City of Wanneroo Design Specification WD6: Site Regrading
 - City of Wanneroo Design Specification WD9: Cycle and Pathway Design
 - City of Wanneroo Design Specification WD10: Bushfire Protection
 - City of Wanneroo Design Specification WD15: Property Development Design
 - City of Wanneroo Standard Irrigation Specifications
 - City of Wanneroo Standard Drawings
 - City of Wanneroo Local Biodiversity Strategy
 - City of Wanneroo Irrigation Specification
 - City of Wanneroo Style Guide 9.9

- Department of Water North West Corridor Water Supply Strategy
- Utility Providers Code of Practice
- Liveable Neighbourhoods
- Australian Standards
- Austroads

4. General

- 4.1 Compliance with the Australian Standards is a City of Wanneroo requirement, however, this does not assure approval as approval of any items is at the City's discretion.
- 4.2 Temporary soft-landscaping, hard-landscaping, structures or built elements are not permitted.
- 4.3 Where landscaping is proposed in close proximity to existing traffic lanes, a traffic management plan is to be prepared in accordance with AS1742.3-2002.
- 4.4 Trees and vegetation exceeding a height of 600mm at mature height are not permitted in truncation areas (sightlines). In addition please refer to Austroads 'Intersection at Grade' part 5 and the City of Wanneroo's technical drawing TS 04-3.

5. Trees

- 5.1 Number of trees in residential streetscapes:
 - Standard Lot – one tree per lot
 - Corner Lot – one tree on the short side, two trees on long side if 10m apart
- 5.2 Trees are to be set back:
 - Offset from road as per Liveable Neighbourhoods
 - 1m from footpath mow strip/garden edging and paved surfaces
 - 1.5m from crossovers
 - 2.5m from structures including (but not limited to) walls, built elements, signs and streetlights

Where this cannot be achieved, the City of Wanneroo is to be contacted to discuss alternatives.
- 5.3 All trees planted in road reserves are to be on standard alignments as set out in the 'Utility Providers Code of Practice'.
- 5.4 Street trees to be a minimum of 70% native with appropriate species as per the City of Wanneroo Street Tree Masterplan.
- 5.5 Retained trees are to be protected during construction as per AS 4970-2009.
- 5.6 Mature, transplanted trees are to be accompanied with a temporary watering license that is valid for five years.

6. Turf

- 6.1 Lawn/turf is not an acceptable public access way, verge or median treatment due to water conservation and maintenance requirements and as per the Department of Water North West Corridor Water Supply Strategy.
- 6.2 It is recommended that verges receive mulch and planting treatment using native, water wise species.

7. Planting

- 7.1 All planting (trees, shrubs, turf, groundcovers), both irrigated and dry-planted are to be maintained by the Developer at the Developers cost for a minimum period of two years (including two summers) prior to handover to the City of Wanneroo.
- 7.2 Note – the City of Wanneroo does not accept handovers from the start of November to the end of March. If necessary, the developer is to extend the maintenance period accordingly at their own cost.
- 7.3 Planting is to comprise of water-wise, robust species with good longevity.
- 7.4 Planting is to be mulched with a 75mm thick bark/wood mulch layer.
- 7.5 Planting within the road reserve is to be a maximum height of 600mm at maturity.
- 7.6 Native planting species are encouraged.
- 7.7 Minimum planting density is 3 plants per square meter for flat areas and slopes up to (but not including 1:4). Note: generally verges are to grade at 2% towards the road. Proposed batters will be considered in line with Engineering approvals.
- 7.8 1:3 and 1:4 slopes are to have a minimum planting density of 6 plants per square meter.
- 7.9 The maximum allowable planting slope is 1:4 (1:6 is preferred), unless Engineering approvals allow for 1:3 slopes.
- 7.10 No slopes may be steeper than 1:4, unless Engineering approvals allow for 1:3 slopes.
- 7.11 Retained areas of vegetation to be weeded and kept weed free.

8. Verge and median small rainfall event areas

- 8.1 Small rainfall event areas (Biofilter / raingarden / bioretention / 1:1 drainage area / swales), if permitted as per specification WD5, shall have 50% dryland plant species. The remaining 50% shall be plant species shall be effective at nutrient removal.
- 8.2 The use of gravel/loose stone/loose spawl is not permitted.
- 8.3 Designers shall consider health and safety issues associated with drainage areas adjacent to footpaths and roads.
- 8.4 Small rainfall event areas are to be planted with at least 50% of plants effective at nutrient removal and planting should be between 8-12 plants per square meter as per the Department of Waters recommendations (Water Sensitive Urban Design document).

9. Irrigation

- 9.1 Irrigation is to be in accordance with the Department of Water North West Corridor Water Supply Strategy.
- 9.2 To facilitate planting establishment, any dry-planting should take place in late autumn/early winter and supplementary infill planting is to be undertaken the following year in late autumn/early winter.
- 9.3 Irrigation design is to comply with the City of Wanneroo Irrigation Specification.

10. Maintenance Strip

- 10.1 A 600mm wide bark/wood mulch maintenance strip along the kerb-line (measured from the back of kerb) is required on all roads with a speed limit of 50km/hr or less.
- 10.2 A 1200mm wide bark/wood mulch maintenance strip along the kerb-line (measured from the back of kerb) is required on all roads with a speed limit exceeding 50km/hr.
- 10.3 The bark/wood mulch layer for maintenance strips is to be 75mm thick.
- 10.4 A 1000mm – 1200mm wide brick paved or colour concrete hardstand maintenance strip along the kerb line (measured from back of kerb) is required on all District and Primary Distributor Roads.

11. Hard-landscaping

- 11.1 Loose: gravel/crushed stone/spawl/filter rock/stone mulch and the like is not permitted on verges or medians, in verge and median swales/rain gardens etc or adjacent to footpaths, cycle paths and dual use paths.
- 11.2 Crushed/stabilized limestone is to be compacted and cement stabilized to form a completely hard solidified surface.
- 11.3 Concrete garden edging is required to be 32MPa on a sub-base compacted to 95% MDD.
- 11.4 Concrete foot paths and dual use paths are required to be 32MPa with expansion joints every 5m and contraction joints every 2.5m.
- 11.5 Verge footpaths and dual use paths identified in the WAPC conditions are to be designed, approved and undertaken as a part of the Engineering works.
- 11.6 In-situ cast paving is to be 32MPa expansion joints at 3m centers in both directions
- 11.7 Stairs/steps are to have risers between 150mm and 180mm inclusive and treads 300mm minimum.
- 11.8 Step treads and risers are to be parallel.
- 11.9 Rocks are to be mortared in place and are to be set back 1.2m from back of kerb and 0.6m from footpaths and dual access paths.
- 11.10 Tiles and other easily vandalized cladding or capping shall not be permitted.
- 11.11 Consideration should be given to longevity and robust design.

12. Universal Access

- 12.1 Provide universal accessibility with ramps/walkways complying with the Australian Standards.
- 12.2 Foot paths to link to broader path network and allow for universal accessibility.

13. Maintenance Access

- 13.1 Vehicular access to public access ways is to be provided via a 3m wide reinforced crossover with lockable removable bollards or a lockable chain gate. The crossover is to extend from kerb across the verge footpath or dual use path.
- 13.2 Public access ways 40m in length or longer will require vehicle access the whole length of the public access way via a minimum 2.5m reinforced concrete path.

14. Bollards

- 14.1 The use of bollards should be avoided. Where this is not possible, e.g. engineering requirements trees should be used as bollards.
If this is not possible and there is no other alternative acceptable to the City of Wanneroo, bollards may be used provided the following:
- If located in a footpath or dual use path, they are round profile, treated timber, painted white with a red reflective band at the top.
 - If they are located outside of a footpath or dual use path, they are to be round profile, unpainted treated timber.
- 14.2 Removable bollards or chain gates (as required by the City of Wanneroo for access) are to be secured by a padlock, keyed to the City's standard.
- 14.3 Bollards are to be set back 1.2m from the back of kerb.

15. Security Lighting (if required)

- 15.1 Security lighting (if required) is to be located appropriately (near facilities), compatible with City light fittings, locally sourced, vandal resistant, low maintenance, low replacement cost and energy efficient and to be in accordance with Local Planning Policy 4.3.
- 15.2 Electrical lighting is to be from a metered power supply. The developer is responsible for the payment of the account until handover.
- 15.3 Solar lighting is to have the battery located at the top of the light or in a theft-proof box at the base.

16. Structures and Furniture (if permitted)

- 16.1 Prior to the commencement of works (after Landscape Approval is granted by the City of Wanneroo), building license (as per the Building Act 2011 and Building Regulations 2012) should be sought for:
- Shelters (larger than 10sqm)
 - Shade sails (larger than 20sqm)
 - Retaining walls (over 500mm in height)
 - Masonry fences over 750mm in height
 - Any non-masonry fences over 1800mm
- 16.2 Accessible retaining walls of 1m and greater require a 1m high balustrade.
- 16.3 All walls and fences, including property boundaries facing the road reserve, public access ways, public open space and school site require non-sacrificial anti graffiti coating.
- 16.4 Anti-skate nibs are to be placed on walls adjacent to hard-stand areas.
- 16.5 Steel is to be hot-dip galvanized and un-painted.
- 16.6 Shelters and furniture to be un-painted and of a rust-resistant material to the City of Wanneroo's approval.
- 16.7 All furniture, structural and architectural elements, shelters etc to be durable, easily maintainable, low-maintenance, readily available for replacement, low-cost, sustainable and robust.
- 16.8 Structures are to be designed in such a way that they do not act as a screen or conceal antisocial behavior.

17. Artwork (if permitted)

- 17.1 Artworks require a Development Application (prior to the commencement of works) and a Management Plan.
- 17.2 Artwork is to have no movable parts.
- 17.3 Artwork is to be low-maintenance.

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