

**CURTIN UNIVERSITY**  
**PROJECT DELIVERY GUIDELINES**

**PUBLIC PLACES DESIGN AND  
TECHNICAL GUIDELINES**

**000316**



**Curtin University**

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# **1 INTRODUCTION**

This Project Delivery Guidelines document provides guidance on public places design principles, requirements and the technical specifications for construction projects at all Curtin University campuses.

Curtin places high value on campus urban spaces and its public and open spaces. To make these spaces more accessible and better utilised, the spaces need to provide the right level of amenities for their location and potential use. An analysis of the current use of the spaces and existing features is crucial, taking into account the vegetation, building function, pedestrian/vehicular access and public amenities e.g. movable furniture, drinking fountains and waste management.

All spaces will need to conform to the Curtin University Universal Design Guidelines.

For queries, identified issues, or where alternative public places elements are sought, contact the Portfolio Manager, Public Places.

The Project Delivery Guidelines have been prepared in consultation with Curtin University subject matter experts and stakeholders. It is recognised that the subject matter of Guidelines will not always be suitable for all project elements and departures from the Guidelines may be required or desirable. Departures from Guidelines must be agreed upon in consultation with the relevant University Guideline subject matter expert. Departures must be recorded in a project register and recorded and reviewed in the Project Control Group meeting minutes under its own meeting agenda item "Project Delivery Guideline Departures". Where the University subject matter expert identifies that a departure adds ongoing value to the University, the subject matter expert will update the relevant Guideline.

## **1.1 ACADEMIC HEART MASTERPLAN**

The Academic Heart houses Curtin University headquarters at Bentley and, to facilitate the delivery of the fundamental elements, development should follow a place-led approach where people and their needs are front and centre.

Planners and developers of public places projects should be aware of the Curtin Academic Heart Masterplan and its Development Guidelines. These guidelines are applicable to new development, redevelopment and refurbishment of all buildings and places within the Academic Heart.

### **1.1.1 SHARED SPACES**

Planners and developers should familiarise themselves with the guidelines for the design or redesign of places and spaces that are intended to be shared between people on foot and people in or on vehicles such as cars or bicycles. The Curtin University Shared Zone Design Guidelines provide the information required to ensure that all shared zones meet the appropriate quality, safety, form and function standards to achieve the vision of a thriving urban environment.

### **1.1.2 CURTIN CIRCUIT GUIDELINES**

Planners, designers and developers should familiarise themselves with the guidelines to understand the overarching principles and requirements of the Campus Public Realm and provide specific detailed guidance on materials, finishes and fixtures. The guidelines also propose overarching recommendations and high level design solutions. Project location is identified within the guideline.

### **1.1.3 THE LIVING STREAM**

Planners and developers should familiarise themselves with the background and intent outlined in the Campus Living Stream Development Guideline. This document provides guidance for linking the Indigenous Dreaming Trails across the campus, the Living Stream and water elements to recognise and respect the importance of water to the Indigenous community.

## **1.2 CURTIN REQUIREMENTS**

### **1.2.1 DISABILITY ACCESS AND INCLUSION PLAN**

Curtin University believes in creating equitable and inclusive access for people with a disability to its facilities, services, events and academic programs on all its Western Australian campuses.

The *Universal Design Guideline* has been developed to reflect a commitment to equity and inclusion for all by embedding Universal Design principles into project planning, design and delivery guidelines. Consultant architects, designers and engineers should make themselves familiar with the particular requirements of the *Universal Design Guideline* before responding to a project brief.

### **1.2.2 HEALTH AND SAFETY**

Curtin University is committed to providing and maintaining high standards of health and safety in the workplace and will:

- ensure compliance with relevant legislation and the University's Health and Safety Management System
- promote an organisational culture that adopts health and safety as an integral component of its management philosophy
- ensure that health and safety is part of the business planning processes and that it is adequately resourced by all areas
- maintain an effective mechanism for consultation and communication of health and safety matters
- maintain an effective process for resolving health and safety issues and managing health and safety risks
- provide appropriate health and safety training
- regularly review health and safety performance to monitor the effectiveness of health and safety actions and ensure health and safety targets and objectives are met.

A copy of our Health and Safety Management Standards can be found at:

<https://healthandsafety.curtin.edu.au/local/docs/HManagementStandards.pdf>

### **1.2.3 SUSTAINABILITY AT CURTIN**

It is Curtin University policy that all new or refurbishment projects on site should support its status as Australia's first university to achieve a 5-star Green Star – Communities rating from the Green Building Council of Australia (GBCA). Designers should understand and incorporate the Green Star criteria into designs and specifications in order to maintain and enhance Curtin's Green Star status. Information on the criteria can be found in the *PDG Green Star – Communities Design Guidelines*.

## **2 PUBLIC REALM ELEMENTS**

### **2.1 TREES**

All trees on site are an asset, and every tree on campus has been asset-valued. It is also important that planners and designers understand the Curtin Tree Replacement Plan for Black Cockatoo Habitat Improvement, as these tree resources are a vital component for the protection of the endangered black cockatoo.

The tree development criteria are described below.

#### **2.1.1 TREE PROTECTION ZONES**

At the planning stage of a project, existing trees must be identified and, to ensure their integrity, tree protection zones must be established. A tree protection zone is an area in which no grading or construction activity may occur. The tree protection zone should be large enough to retain sufficient root and crown area to maintain tree health and stability. The size and conformation of the tree protection zone for a given tree depends on several factors:

- species sensitivity to impact
- health and age of the tree
- root and crown conformation
- development constraints.

Where needed, a professional arborist may be engaged to obtain further advice.

#### **2.1.2 TREE PURCHASE, PLANTING AND CONSIDERATIONS**

As part of construction projects, landscape architects and designers are to incorporate more trees on sites, which will provide a shading element and assist in the reduction of the urban heat island effect.

All trees are to be plotted using a global positioning system (GPS) and relevant forms completed to ensure tree data is kept up to date. (Refer to the Drawing Services Design Brief.)

Consideration should be given to the following requirements:

- Trees are to be purchased from a reputable tree nursery.
- Trees are to be species that are low risk to staff, students, visitors and property e.g. trees that are not susceptible to dropping branches, especially when adjacent to pedestrian pathways.
- Tree species are to suit the location, with thought given to maximum growth habit.
- Preference is for metal tree ring edging to be installed around the tree base at planting stage.
- Dependent on site location, tree root barriers are to be considered.
- Trees are to have a separate irrigation system.
- The location of trees is to be taken into consideration so that they do not affect the vision of pedestrians, vehicles, security cameras or grounds/security lights.
- Trees are to be located with consideration for maintenance accessibility.

- Lighting in trees is to be easily removed for future tree maintenance. On installation, lights within the tree canopy should not affect the long-term wellbeing of the tree e.g. anything that restricts the tree's growth or penetrates into the tree structure.
- Trees that are likely to be affected by newly built structures or infrastructure upgrades are to be identified at the early planning stage.

## **2.2 FLORA**

Consideration should be given to the following requirements:

- Plants are to be sourced from a reputable plant nursery.
- Plants are to be a waterwise, drought-tolerant species. (Exceptions can be made in areas with special requirements such as high-shade areas.)
- Plants with similar watering needs are to be grouped together (water zoning of plants).
- An instant landscape approach is to be adopted, as mass planting decreases weed growth in areas.
- Areas of planting are to have separate irrigation systems.
- Installation of plants/trees/turf is to be completed within the cooler season months and not in the middle of summer.

## **2.3 TURF**

Consideration should be given to the following requirements.

- Turf selection is dependent on the site and should be with regard to its special conditions e.g. amount of shade, high pedestrian use.
- Turf is to be selected from a reputable turf grower.
- Metal edging is to be installed with turf that adjoins garden beds.

## **2.4 MULCH**

Mulch is to be shredded pine bark or quality recyclable green waste woodchip mulch and not jungle/peat mulch. Mulch is to be purchased from a reputable soil company.

## **2.5 HARDSCAPES**

Hardscapes will be assessed on a project-by-project basis, dependent on the project scope and scale and will comply with requirements set out in the Academic Heart Landscape Master Plan's material schedules AND Curtin Circuit Guidelines. Maintenance of a product is to be identified and discussed with Public Places.

The University predominantly uses UrbanStone products and clay pavers.

Where concrete is used for trafficable surfaces, it is to meet the standards for vertical tolerances and slip resistance and the surface finish is to complement or match existing surfaces.

The Curtin University Shared Zone Design Guidelines provide further information for designers when the hardscape is part of a shared zone.

## **2.6 PEDESTRIAN WAYS**

Pedestrian ways are to be designed for safe, clear travel for all. They should facilitate movement and connections between areas and facilities across the campus.

The following are design considerations:

- Pathways are to be universally accessible.
- Pathways should be visible, provide climate comfort and be clutter-free.
- Pathways should complement or match existing materials, with a preference for clay pavers.
- Surfaces must be slip resistant, flat and even, with smooth transitions.
- Pathway width should consider existing pathways and accommodate pedestrian traffic.

The Curtin University Shared Zone Design Guidelines provide further information for use by designers when the pedestrian way is part of a shared zone.

## **2.7 LANDSCAPE AND IRRIGATION SPECIFICATIONS**

Irrigation designs are to be completed by a reputable irrigation consultant who has experience with the particular University site. Irrigation is to be installed by a preferred irrigation contractor. A listing of these can be provided on request.

### **2.7.1 IRRIGATION METERING**

All irrigation of public places at Curtin University and the Greater Curtin Precinct shall be metered, in accordance with the requirements described in *000346 PDG Services Metering Guidelines*.

### **2.7.2 GROUNDWATER SUPPLIES**

All irrigation to the Bentley Campus uses groundwater supplies and therefore is a valuable resource. Curtin University has a licence for groundwater use from the Department of Water and must comply with its terms and conditions.

The use of groundwater for construction on University sites is not an authorised activity under the University's licence conditions. The need for dust suppression during construction will be identified during the planning stage. Contractors or individuals requiring groundwater for use during construction must apply in writing to the Department of Water. (Refer to the Department of Water website [www.water.wa.gov.au/licensing/water-licensing](http://www.water.wa.gov.au/licensing/water-licensing).) Once approval is given, a copy is to be provided to the Portfolio Manager, Public Places.

If the use of groundwater has been denied for dust suppression, water tankers will need to cart water in and not use Curtin's scheme water. (Refer to *the 000326 PDG Hydraulic Services Design Guideline*.)

For irrigation specifications, please refer to the reference document within the Public Realm section.

## **2.8 AMENITY ELEMENTS**

Amenity elements, including furniture, are to be considered when designing a site to provide comfort and shelter to students, staff and visitors.

Furniture and/or amenity elements are to be of commercial grade. Sustainability in furniture is important to Curtin to achieve optimal results that generate a benefit action to the environment. Issues to consider include: creation of furniture with recycled products; materials used to manufacture and the process of manufacturing; durability of the element. Well-made furniture will have a longer functional lifespan.

The use of appropriate amenity elements for shared zones is discussed in the Curtin University Zone Shared Design Guidelines.

### 3 REFERENCES

Reference title
Campus Living Stream Development Guideline
Curtin Academic Heart Landscape Masterplan (under development)
Curtin University <i>Documentation Deliverables Guidelines</i>
Curtin Tree Replacement Plan for Black Cockatoo Habitat Improvement
Curtin University Universal Design Guidelines
Curtin University Shared Zone Design Guidelines
Curtin University Circuit Guidelines
<i>000346 PDG Services Metering Guidelines</i>