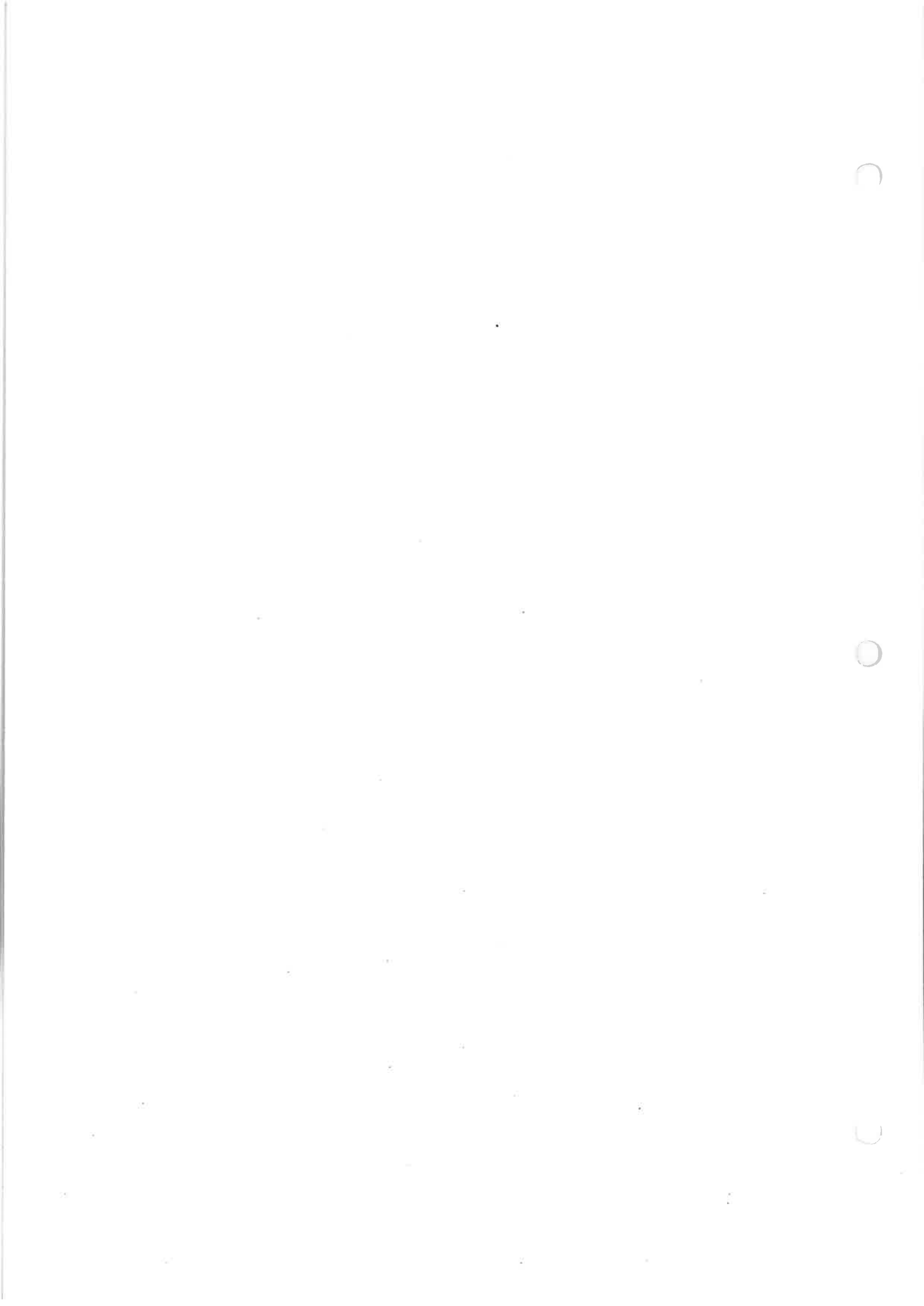


**DEVELOPMENT DESIGN  
SPECIFICATION**

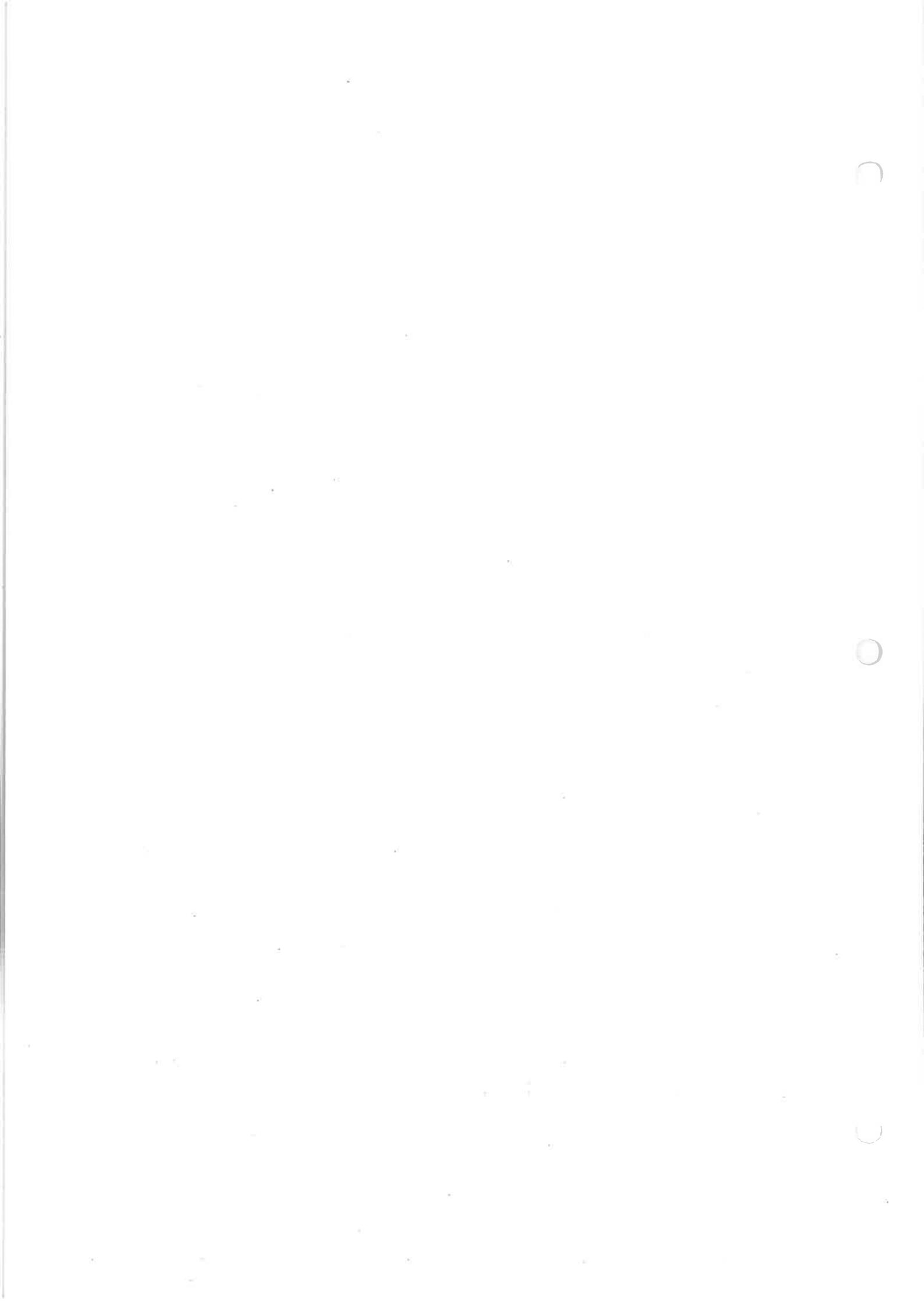
**D8**

**CYCLEWAY AND PATHWAY  
DESIGN**



**DESIGN SPECIFICATION D8  
CYCLEWAY AND PATHWAY DESIGN**

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**DEVELOPMENT DESIGN SPECIFICATION D8  
CYCLEWAY AND PATHWAY DESIGN**

**GENERAL**

**D8.01 SCOPE**

1. This specification sets out requirements to be used in the design of various types of cycleways and pathways.
2. All relevant design principles contained in the Austroads Guide referenced below must be integrated in the design of cycleways and associated infrastructure. This specification serves as a companion document to the Austroads Guide extended to incorporate basic requirements for pathways.

**AUSTROADS**

**D8.02 OBJECTIVES**

1. This specification aims to set standards and document requirements related to the provision of cycleways and pathways, which encourage pedestrian activities and cycling for transportation and recreational purposes. Cycleways and pathways are to be safe and convenient and shall maintain a satisfactory level of service for all pathway users.

**Safety  
Level of  
Service**

**D8.03 REFERENCE AND SOURCE DOCUMENTS**

**(a) Council Specifications**

D1 - Geometric Road Design

**(b) Australian Standards**

AS 1742 - Manual of uniform traffic control devices.  
AS 2890.3 - Bicycle parking facilities

**(c) Other**

AUSTROADS - Guide to Traffic Engineering Practice - PART 13 Pedestrians, PART 14 Bicycles.

- Planning and Designing for Bicycles - NAASRA (now Austroads) Technical Report June 1988.

Ministry of Transport, Victoria - State Bicycle Committee  
- Planning and Design of Bicycle Facilities,

**D8.04 CONSULTATION**

1. The Designer is encouraged to consult with Council, the Developer's Landscape Architects/Designers and relevant authorities prior to and during the preparation of cycleway and pathway design.

**Landscape  
Designers  
Public  
Authorities**

**D8.05 PLANNING CONCEPTS**

1. Council at the planning stage may designate cycleway paths and/or footpaths through the proposed subdivision, including the type and location of such path.

*Subdivision  
Code and  
Bicycle Plan*

2. The Designer should familiarise themselves with cycleway geometric design requirements in terms of:

*Geometric  
Design*

- Width
- Grade
- Stopping sight distance
- Change in grade
- Horizontal curvature
- Crossfall and drainage
- Superelevation
- Sight distance on horizontal curves

*AUSTROADS  
Guide*

These requirements are discussed in the AUSTROADS Guide.

**D8.06 CYCLEWAY AND PATHWAY TYPES**

1. Cycleways can be provided on road and off road. The Austroads Guide provides detailed descriptions, warrants, widths, pavement marking etc for the majority of these cycleways.

*On Road Off  
Road*

2. Common alternative cycleway types include:

**On Road**

Shared Parking/Bicycle Lanes  
Wide Kerbside Lanes  
Shared Traffic Lanes  
Exclusive Bicycle Lane  
Sealed Shoulder

**Off Road**

Shared Bicycle/Pedestrian Pathway  
Segregated Pathway  
Exclusive Cycleway

The AUSTROADS Guide provides advice on the suitability of pavement conditions, drainage pit grates etc for on road cycleways.

*AUSTROADS  
Guide*

3. Common pathway types include:

Exclusive Pedestrian Pathways  
Shared Bicycle/Pedestrian Pathways

By definition pedestrian pathways are "off road" in that pedestrian facilities routinely designed adjacent to roadways are termed footpaths and are designed to meet criteria outlined in Council's Subdivision Code and typically related to road cross section detailing.

*Footpaths*

4. Pathways by comparison diverge from the road alignment either within the road reserve or across land reserves. Pathways can be provided in conjunction with overland floodways or retention basins.

*Land Reserves*

**D8.07 PROVISIONS FOR CYCLEWAYS AND PATHWAYS AT STRUCTURES**

1. Designers shall consider the best way to cater for the uninterrupted movement of cyclists and pedestrians at proposed and existing structures wherever possible. Structures include bridges and underpasses over rivers, roads or railways. The Austroads Guide provides information on:

*Bridges  
Underpasses*

- Acceptable widths and clearances
- Types of cycleways and pathways
- Handrails
- Bicycle bridges
- Approach ramps
- Etc.

**D8.08 SIGNAGE AND PAVEMENT MARKING**

1. The Designer shall provide adequate signposting for cycleways and pathways.

2. Signs and pavement marking will provide for the safe and convenient use of the facility. The signs and pavement marking will comply with AS 1742.

*Signs  
Pavement  
Marking*

**D8.09 END OF JOURNEY FACILITIES**

1. Consideration must be given to the design of adequate facilities at common destinations of cyclists and pedestrians so as to encourage cycleway and pathway usage.

2. Such facilities could include:

*Facilities*

- Seats
- Standby areas
- Secure bicycle parking
- Picnic facilities

3. Bicycle parking installation design should meet appropriate criteria discussed in the Austroads Guide and be fabricated to meet AS 2890-3.

*Parking*

**D8.10 MINIMUM DESIGN STANDARDS**

1. Notwithstanding the guidelines provided in this specification and referenced documents the following minimum standards have been determined as shown in Table D8.1.

**Table D8.1**

	<b>Cycleway</b>	<b>Pathway</b>	<b>Shared Pathway</b>
<b>Path Width</b>	2.0m	1.2m	2.5m
<b>Formation Width</b>	3.0m	2.0m	3.5m
<b>Crossfall</b> min.	1:40	1:40	1:40
max.	1:20	1:20	1:20
<b>Clearance Horiz.</b>	2.5m	1.2m	2.5m
<b>Grade</b> max.	2% for 450m 5% for 90m 10% for 30m	NA	2% for 140m 3% for 70m 4% for 40m 5% for 30m

2. The structural design shall be in accordance with the current issue of Standard Drawing SD118"Concrete Footpaving Details" and as amended from time to time.

**Structural Design**

**D8.11 DOCUMENTATION**

1. The following listing outlines Council's minimum requirements for presentation of cycleway and/or pathway designs.

- All plans for cycleways/pathways are to be presented at the reduction ratio 1:500.
- The cycleway plan sheet may be incorporated into the road plan where clarity permits. Specific details are to be provided at reduction ratio 1:200.
- Longitudinal Sections will be required for all off-road cycleways where grades exceed 4%.
- Longitudinal Sections will have reduction ratios of 1:500 horizontal and 1:100 vertical.
- Cross Sections will be presented at 1:100 reduction ratio (natural) and transition tables will be required where cross falls vary or superelevation is provided.
- A typical cross section will be detailed to indicate pavement materials and layer depths.

**Plans**

**Long Sections**

**Cross Sections**