

COFFS HARBOUR CITY COUNCIL



**DEVELOPMENT SPECIFICATION
DESIGN**

0044 Pathways and cycleways

Version 1 01 January 2009

0044 PATHWAYS AND CYCLEWAYS

1 SCOPE AND GENERAL

1.1 SCOPE

This worksheet sets out requirements to be used in the design of various types of cycleways and pathways.

This worksheet serves as a companion document to the *AUSTROADS Guide* extended to incorporate basic requirements for pathways.

1.2 OBJECTIVES

This worksheet set standards and document requirements related to the provision of cycleways and pathways which:

- encourage pedestrian activities and cycling for transportation and recreational purposes;
- are safe and convenient; and
- maintain a satisfactory level of service for all pathway users including users with disabilities and limited mobility.

1.3 REFERENCED DOCUMENTS

The following documents referred in this worksection are:

Worksections

0041 *Geometric road layout*

0160 *Quality (Design)*

Standards

AS 1428 Design for access and mobility
 AS 1742 Manual of uniform traffic control devices
 AS 1742.9 Bicycle facilities
 AS 1742.10 Pedestrian control and protection
 AS 2890 Parking facilities
 AS 2890.3 Bicycle parking facilities

Other publications

AUSTROADS

AP-11 Guide to Traffic Engineering Practice

Part 13: Pedestrians

Part 14: Bicycles

Planning and Designing for Bicycles—NAASRA (now AUSTROADS) Technical Report June 1988

1.4 BIBLIOGRAPHY

The following documents provide additional information:

AS 2156 Walking Tracks
 AS 2156.1 Classification and signage
 AS 2156.2 Infrastructure design
 SAA HB 69.14 Guide to traffic engineering practice—Bicycles

Other publications

Ministry of Transport, Victoria—State Bicycle Committee
 Planning and design of bicycle facilities

1.5 CONSULTATION WITH COUNCIL AND PUBLIC AUTHORITIES

The Designer shall consult with Council, relevant authorities, and, where applicable, project landscape architects/designers prior to, and during, the preparation of cycleway and pathway design.

1.6 PLANNING CONCEPTS

Planning

The design shall comply with requirements for cycleways and pathways in any applicable Council regional or local strategic bicycle plan or subdivision code.

Geometric design

The design shall comply with *AUSTROADS Guide to traffic engineering practice Parts 13 and 14* in terms of:

- width
- grade
- stopping sight distance
- change in grade
- horizontal curvature
- crossfall and drainage
- superelevation
- sight distance on horizontal curves

Disabled access

The Designer shall incorporate all the requirements for disabled access as appropriate for pathway design in accordance with any Council Policy or Development Control Plan on Access and Mobility and AS 1428.

1.7 CYCLEWAY AND PATHWAY TYPES

Cycleways

Cycleways can be provided on road and off road. *AUSTROADS Guide to traffic engineering practice Part 14* provides detailed descriptions, warrants, widths, pavement marking, etc., for the majority of these cycleways.

Relevant design principles contained in the *AUSTROADS Guide to traffic engineering practice Part 14* shall be integrated in the design of cycleways and associated infrastructure.

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 use bicycle/pedestrian pathway
 - . Separated pathway
 - . Exclusive cycleway

AUSTROADS Guide to traffic engineering practice Part 14 provides advice on the suitability of pavement conditions, drainage pit grates, etc., for on road cycleways.

Pathways

Common pathway types include:

- Exclusive pedestrian pathways
- Shared use bicycle/pedestrian pathways

Pathways 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.

Footpaths

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 for instance in Council's Subdivision Code and typically related to road cross section detailing.

1.8 PROVISION FOR CYCLEWAYS AND PATHWAYS AT STRUCTURES

Designers shall consider the best way to provide 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 reference and source documents provide information on:

- acceptable widths and clearances
- types of cycleways and pathways
- handrails
- bicycle bridges
- approach ramps, etc.

1.9 SIGNAGE AND PAVEMENT MARKING

The Designer shall provide adequate signposting for cycleways and pathways.

Signs and pavement marking shall comply with AS 1742.9 and AS 1742.10.

1.10 END OF JOURNEY FACILITIES

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.

Such facilities could include:

- seats
- standby areas
- secure bicycle parking
- picnic facilities

Bicycle parking installation design should meet appropriate criteria discussed in the *AUSTROADS Guide to traffic engineering practice Part 14* and be fabricated to meet AS 2890.3.

1.11 DESIGN CRITERIA

Notwithstanding the guidelines provided in this worksheet and referenced documents Table 1.1 gives minimum standards.

Table 1.1 Minimum design criteria for cycleways, pathways and shared use pathways

Feature		Cycleway	Pathway	Shared use pathway
Path Width		2.0 m	1.2 m	2.0 m
Formation Width		3.0 m	2.0 m	3.0 m
Crossfall	min.	1:40	1:40	1:40
	max.	1:20	1:20	1:20
Grade	max.	2% for 450 m 5% for 90 m 10% for 30 m	NA	2% for 140 m 3% for 70 m 4% for 40 m 5% for 30 m

1.12 DOCUMENTATION

Drawings

All Drawings shall be in accordance with the minimum drafting requirements in 0160 *Quality (Design)*

Plans

The following shall apply:

- All plans for cycleways and 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.

Long sections

Longitudinal sections will:

- be required for all off-road cycleways where grades exceed 4%.
- have reduction ratios of 1:500 horizontal and 1:100 vertical.

Cross sections

The following shall apply:

- 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.