Muswellbrook Shire Council

DEVELOPMENT DESIGN SPECIFICATION

AUS-SPEC (Cot 09)

0044 Pathways and cycleways

Amendment Record for this Specification Part

This Specification is Council's edition of the AUS-SPEC generic specification part and includes Council's primary amendments.

Details are provided below outlining the clauses amended from the Council edition of this AUS-SPEC Specification Part. The clause numbering and context of each clause are preserved. New clauses are added towards the rear of the specification part as special requirements clauses. Project specific additional script is shown in the specification as italic font.

The amendment code indicated below is 'A' for additional script 'M' for modification to script and 'O' for omission of script. An additional code 'P' is included when the amendment is project specific.

Amendment Sequence No.	Key Topic addressed in amendment	Clause No.	Amendment Code	Author Initials	Amendment Date
0	Customisation for Muswellbrook Council Local Government Area	all	AMOP		24/10/2011

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0044 PATHWAYS AND CYCLEWAYS

1 GENERAL

1.1 RESPONSIBILITIES

Objective

Activities: This worksection 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.
- Maintain a satisfactory level of service for all pathway users including users with disabilities and limited mobility.

1.2 CROSS REFERENCES

Worksections

General: 0160 *Quality (Design).*

- *0041 Geometric road layout.*

1.3 REFERENCED DOCUMENTS

The following documents are incorporated into this worksection by reference:

Standards

AS 1428-Various	Design for access and mobility
AS 1742	Manual of uniform traffic control devices
AS 1742.9-2000	Bicycle facilities
AS 1742.10-1990	Pedestrian control and protection
AS 2890	Parking facilities
AS 2890.3-1993	Bicycle parking facilities

Other publications

AUSTROADS

AP-11	Guide to Traffic Engineering Practice
AP-11.13: 1995	Pedestrians
AP-11.14: 1999	Bicycles

Ministry of Transport, Victoria—State Bicycle Committee

Planning and design of bicycle facilities

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

Muswellbrook Shire Council's Development Control Plan, Seection 5 – Subdivision

2 DESIGN

2.1 CONSULTATION

Pre planning

Stakeholders: Liaise with the following bodies prior to, and during, the preparation of cycleway and pathway design:

- Council and public authorities.
- Project landscape consultants.
- Relevant authorities.
- Public stakeholders.
- Services utilities.

2.2 PLANNING

Planning

Requirements: Conform to the requirements for cycleways and pathways in any applicable Council regional or local strategic bicycle plan or Development control plans.

Pedestrian and cycleway to be comply with Council's adopted strategic plans.

2.3 DESIGN CRITERIA

Geometric design

Comply with *AUSTROADS Guide to traffic engineering practice AP-11.13 and AP-11.14* terms of:

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

Disabled access

Requirements: 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 to AS 1428.

Cycleway and pathway types

Cycleways: Cycleways can be provided on road and off road. *AUSTROADS AP-11.14 Guide to traffic engineering practice--Bicycles* provides detailed descriptions, warrants, widths, pavement marking, etc., for the majority of these cycleways.

Design principles: Integrate relevant design principles contained in the *AUSTROADS AP-11.14 Guide to traffic engineering practice--Bicycles* 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.

On road conditions: *AUSTROADS AP-11.14 Guide to traffic engineering practice--Bicycles* 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.

Locations: Pathways may diverge from the road alignment either within the road reserve or across land reserves, and may 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.

Provision for cycleways and pathways at structures

Uninterrupted movement: Consider the best way to enable the uninterrupted movement of cyclists and pedestrians at proposed and existing structures wherever possible. Structures include bridges and underpasses.

Design details: The reference and source documents provide information on:

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

Provision for cycleways and pathways at road crossings

Requirement: Provide appropriate grades, width adjustment for waiting, lighting, sight distance and signage at road crossings.

Signage and pavement marking

Sign posting: Provide adequate signposting for cycleways and pathways to indicate destinations and avoid hazards.

Signs and pavement marking: To AS 1742.9 and AS 1742.10.

End of journey facilities

Facilities: Consider 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 AP-11.14 Guide to traffic engineering practice--Bicycles* and be fabricated to meet AS 2890.3.

Design criteria

Minimum standards: Refer to the **Minimum design criteria table**, notwithstanding the guidelines provided in this worksection and referenced documents.

Minimum design criteria table

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. max.	1:50 1:20	1:50 1:20	1:50 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

Refer Council Standard Drawing for pathway and cycleway.

2.4 MATERIALS

Pavement materials

Pavement type: Select the pavement type to suit the particular specific or shared function.

Pavement types: This may comprise the following:

- Clay pavers.
- Concrete pavers.
- In situ concrete (reinforced).
- Asphalt.
- Composite surfaces.

Environmental

Consider existing or planned trees policy in selection of paving material to minimise disruption or hazard effects on pavement maintenance due to trees or wet shaded zones.

3 DOCUMENTATION

3.1 GENERAL

Drawings

All Drawings: Conform with the minimum drafting requirements in 0160 *Quality (Design)*

Plans

General: Provide the following plans:

- All plans for cycleways and pathways at 1:500 scale.
- The cycleway plan sheet may be incorporated into the road plan where clarity permits. Provide specific details at 1:200 scale.

Long sections

Provide longitudinal sections as follows:

- Required for all off-road cycleways where grades exceed 4%.
- At scales of 1:500 horizontal and 1:100 vertical.

Cross sections

General: The following apply:

- Present cross sections at 1:100 scale (natural). Transition tables will be required where cross falls vary or superelevation is provided.
- Detail a typical cross section to indicate pavement materials and layer depths.