

Roads

Master Specification

RD-PV-C4 Construction of Shared Path Pavements

Document Information

K Net Number:	13995875
Document Version:	2
Document Date:	August 2020

DEPARTMENT FOR
INFRASTRUCTURE
AND TRANSPORT



Government of South Australia
Department for Infrastructure
and Transport

Document Amendment Record

Version	Change Description	Date	Endorsement record (KNet ref.)
1	Initial issue (formerly R83)	28/06/19	
2	Formatting for publishing	August 2020	

Document Management

This document is the Property of the Department for Infrastructure and Transport and contains information that is confidential to the Department. It must not be copied or reproduced in any way without the written consent of the Department. This is a controlled document and it will be updated and reissued as approved changes are made.

Contents

Contents	2
RD-PV-C4 Construction of Shared Path Pavements	4
1 General	4
2 Finished Surface	4
3 Earthworks	4
4 Compaction	5
5 Asphalt	5
6 Concrete	5
7 Elevated Path	6
8 Line marking and Signs	6
9 Hold Points	6

RD-PV-C4 Construction of Shared Path Pavements

1 General

- 1.1 This Part specifies the requirements for the construction of paths used for cycling and pedestrians (“**Shared Paths**”).
- 1.2 In addition to the requirements specified in this Part, the construction of the Shared Path shall comply with the recommended practice in the Department’s Guide to Bikeway Pavement Design Construction & Maintenance for South Australia.
- 1.3 Documents referenced in this Part are listed below:
 - a) ST-SC-S1 “Normal Class Concrete”.
 - b) ST-SC-S1 “Geopolymer Concrete”.
 - c) RD-EW-C1 “Earthworks”.
 - d) Austroads AGPT04B-14 “Guide to Pavement Technology Part 4B: Asphalt”.
 - e) Austroads AP-G88 “Cycling Aspects of Austroads Guides”.
 - f) AS 2150 Hot mix asphalt - A guide to good practice.
 - g) Guide to Bikeway Pavement Design Construction & Maintenance for South Australia, available from: https://www.dpti.sa.gov.au/contractor_documents.

2 Finished Surface

- 2.1 The finished surface of the Shared Path shall:
 - a) not vary more than 10 mm over a 3 m straight edge;
 - b) where a design finished level is specified, be constructed within:
 - i) ± 10 mm for concrete and block paving; or
 - ii) ± 20 mm for other surfaces.
 - c) drain to the top of any adjoining kerb;
 - d) be free draining so that water does not pond on the surface;
 - e) be free of irregularities that could present tripping hazards to users; and
 - f) smoothly about any existing driveways and footpaths adjoining the new surface.

3 Earthworks

- 3.1 This clause applies to minor earthworks undertaken solely for the construction of the Shared Path. Where the earthworks is constructed as part of roadworks or the cut / fill for the Shared Path exceeds 1.0 m, RD-EW-C1 “Earthworks” shall apply.
- 3.2 All vegetation, loose material, rubbish and existing structures shall be removed from the site and disposed of in an environmentally acceptable manner. Unless specified otherwise, topsoil shall be stripped to a minimum depth of 100 mm.
- 3.3 Site preparation and topsoil stripping shall be restricted to the minimum area practicable for construction of the works.
- 3.4 Where batters are not restrained by retaining walls, the batters shall be constructed at a slope which is stable and erosion resistant. Unless specified otherwise, excavated topsoil shall be respread on the batters.
- 3.5 Earthworks fill shall be constructed and compacted in accordance with Clause 4 “Compaction”.

- 3.6 The surface of the earthworks shall be trimmed and compacted with at least 1 pass of the compaction plant prior to the construction of the Shared Path.
- 3.7 Fill material shall not contain topsoil, highly plastic clay, soil classified as highly or very highly expansive, over-wet material, peat or any organic material.

4 Compaction

- 4.1 Earthworks, rubble, Base course and Sub-base course shall be compacted at OMC using the minimum number of passes specified in Table RD-PV-C4 4-1.

Table RD-PV-C4 4-1 Test Procedures

Plant	Thickness 50 – 120 mm	Thickness > 120 mm
Small Vibration Plate (approx. mass 90 kg - Wacker VPA 90 or equiv.)	6	8
Large Vibration Plate (Approx. mass 300 kg - Wacker BPU 3345 or equiv.)	3	4
Small Twin Drum Footpath Roller Minimum 1 t (e.g. Ingersoll Rand DD12)	2	3
3 tonne vibrating roller class VR10 (e.g. Ingersoll Rand DD22)	2	3

Note: The Small Vibration Plate may only be used in areas inaccessible to larger plant.

5 Asphalt

- 5.1 Asphalt Pavements used on Shared Paths shall be designed in accordance with the requirements of Austroads AGPT04B-14 and comply with AS2150.
- 5.2 Asphalt compaction shall be carried out using a minimum 2 passes of a steel double drum, vibrating footpath roller. The surface of the finished asphalt shall be free of segregated or "bony" areas, soft and "fatty" areas, raveling and loose material, surface cracking, shoving and ruts.
- 5.3 The asphalt shall comply with the following:
- Material: AC7 (C170).
 - Minimum Thickness: 30 mm.
 - Base Material: PM2/20 compacted in accordance with Table RD-PV-C4 4-1.
 - Minimum Base Thickness: 150 mm.

6 Concrete

- 6.1 Concrete Pavements used on Shared Paths shall comply with the following:
- Minimum concrete Class: N25
 - Minimum Thickness: 100 mm
 - Reinforcing: SL62
 - Base Material: PM2/20 compacted in accordance with Table RD-PV-C4 4-1.
 - Spacing of contraction joints: 4 m
 - Minimum Sub-base Thickness: 100 mm
- 6.2 The pavements shall be constructed on a Subbase of PM2/20 or PM3/20 compacted in accordance with Table RD-PV-C4 4-1.
- 6.3 The Concrete shall comply with:
- ST-SC-S1 "Normal Class Concrete";
 - ST-SC-S1 "Geopolymer Concrete";
 - reinforcing shall be placed centrally and on spacers;

- d) all shrinkage grooves and edges shall be tool finished;
- e) the surface shall be finished to a non-slip texture and be protected from damage for the first 2 days;
- f) the length to width ratio of the distance between the shrinkage grooves shall not exceed 1.3:1. Expansion joints 12 mm wide and full depth of the concrete shall be provided at not more than 6 m intervals and filled with bitumen or other flexible material; and
- g) 3 mm wide contraction joints shall be sawn to 25mm depth during initial set.

7 Elevated Path

- 7.1 Where the path consists of an elevated structure (i.e. boardwalk), it shall comply with the following:
 - a) capable of being trafficked by a light maintenance vehicle;
 - b) designed and installed in accordance with the manufacturer's instructions;
 - c) deck units shall be placed perpendicular to the direction of travel;
 - d) the gap between planks not exceed 5 mm; and
 - e) chamfer on the edge of the plank shall not exceed 5 mm.
- 7.2 Elevated paths shall consist of
 - a) recycled plastic (Replas Endroplank <https://www.replas.com.au/> or equivalent); or
 - b) precast concrete.
- 7.3 Timber decking or products incorporating recycled timber are not permitted.

8 Line marking and Signs

- 8.1 Line marking and signs shall be installed in accordance with Austroads: AP-G88.

9 Hold Points

- 9.1 There are no Hold Points referenced in this Part.
-