TRUNK ROAD INFRASTRUCTURE TECHNICAL SPECIFICATION No. 04

FLEXIBLE PAVEMENT CONSTRUCTION

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# DOCUMENT INFORMATION

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PREFACE

The Australian Capital Territory has adopted the Austroads Guides for provision and management of road and transport infrastructure. The Territory and Municipal Services Directorate has issued a revised series of documents to reflect this development in infrastructure standards and specifications for practice in the ACT.

This present document is part of the ACT Trunk Road Infrastructure Technical Specifications (TRITS) series spanning the broad scope of road infrastructure development and management in the ACT:

- TRITS 01 – Roadworks
- TRITS 02 – Earthworks
- TRITS 03 – Underground Services
- TRITS 04 – Flexible Pavements
- TRITS 05 – Rigid Pavements
- TRITS 06 – Kerbs and Footpaths
- TRITS 07 – Segmental Paving
- TRITS 08 – Incidental Works
- TRITS 09 – Landscape
- TRITS 10 – Bridges and Related Structures
- TRITS 11 – Pavement Marking
- TRITS 12 – Street Lighting
- TRITS 13 – Traffic Signals
- TRITS 14 – Road Signs
- TRITS 15 – Road Furniture

This ACT Trunk Road Infrastructure Technical Specification No. 04 – FLEXIBLE PAVEMENT CONSTRUCTION prescribes the detailed practices for construction of flexible pavements in the ACT. It is issued to clarify any exceptions or additional requirements for implementation in the ACT, and to identify relevant complementary documents.

In many areas of road infrastructure construction and management, the ACT has adopted the relevant specifications of the NSW Roads and Maritime Services (formerly RTA NSW). The relevant RMS documents are identified and referenced in these ACT Trunk Road Infrastructure Technical Specifications.

The works must be carried out according to the referenced RMS specifications with the exception of items detailed in the Technical Exception Clauses.

Where any differences in practice exist between the RMS Specifications and this Trunk Road Infrastructure Technical Specification, the latter will prevail.

The ACT Government replaces RMS where applicable as the Road Authority. ACT replaces NSW where applicable as the place where the work is conducted. Equivalent ACT authorised organisations and legislation replace NSW’s where applicable. Roads ACT’s authorised representative is equivalent to RMS’s principal.
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1 INTRODUCTION

The Australian Capital Territory has adopted the Austroads Guides for provision and management of road and transport infrastructure. The Territory and Municipal Services Directorate has issued a revised series of documents to reflect this development in standards and specifications for practice in the ACT. The planning, design and management of Earthworks in the ACT must be implemented in general accordance with the Austroads Guide to Pavement Technology and in accordance with specific provisions of the ACT Trunk Road Infrastructure Standard No.6 - Pavement Design.

The Australian Capital Territory has adopted the NSW Roads and Maritime Services (RMS - formerly RTA NSW) specifications for road works, including flexible pavement construction. Pavement construction must be carried out according to the referenced RMS specifications with the exception of items detailed in the Technical Exception Clauses.

This ACT Trunk Road Infrastructure Technical Specification No. 04 – Flexible Pavement Construction prescribes the detailed practices that must be followed in the implementation of the relevant RMS specifications in the ACT.

The works covered in this Section of the specification cover the construction of flexible pavements comprising crushed rock, gravel and suitable soil pavement layers, bituminous layers and surfacing.

1.1 SCOPE

The works covered in this Section of the specification cover the construction of flexible pavements comprising crushed rock, gravel and suitable soil pavement layers, bituminous layers and surfacing.

This Specification includes stabilised pavements but does not include gravel surfaced pavements.

1.2 STRUCTURE OF SPECIFICATION

The Specification refers to a list of RMS Specifications. Each referenced RMS specification contains a more detailed scope statement.

Exceptions and deviations from these are listed in the Technical Exception Clauses.

2 REFERENCE DOCUMENTS

Reference documents include Austroads Guides, Australian Standards and RTA Test Methods.

2.1 LEGISLATIVE DOCUMENTS

2.2 GUIDELINES

Austroads Documents

Part 1: Introduction to Pavement Technology
Part 2: Pavement Structural Design
Part 3: Pavement Surfacings
Part 4: Pavement Materials
Part 4A: Granular Base and subbase
Part 4B: Asphalt
Part 4C: Materials for concrete road pavements
Part 4D: Stabilised materials
Part 4F: Bituminous binders
Part 4G: Geotextiles and geogrids
Part 4H: Test methods
Part 4I: Earthworks materials
Part 4J: Aggregate and source rock
Part 4K: Seals
Part 4L: Stabilising binders
Part 5: Pavement Evaluation and Treatment Design
Part 6: Unsealed pavements
Part 7: Pavement maintenance
Part 8: Pavement Construction Assurance
Part 9: Pavement work practice
Part 10: Surface drainage
Supplementary Documents

2.3 RELATED TECHNICAL SPECIFICATIONS

AS 1141 Methods for sampling and testing aggregates:
AS 1152 Test sieves
AS 1160 Bituminous emulsions for construction and maintenance of pavements
AS 1289 Methods of testing soils for engineering purposes
AS 1580 Paints and related materials
AS 2008 Residual bitumen for pavements
AS 2106 Methods for the determination of the flash point of flammable liquids (closed cup)
AS 2150 Asphalt (Hot-Mixed)
AS 2157 Cutback bitumen
AS 2341 Methods of testing bitumen and related roadmaking products
AS 2357 Mineral Fillers for Asphalt
AS 2700 Colour standards for general purpose
AS 2734 Asphalt (Hot-Mixed) Pavings - Guide to Good Practice
AS 2758 Aggregates and rock for engineering purposes
AS 2891 Methods of sampling and testing asphalt
AS 3568 Oils for reducing the viscosity of residual bitumen for pavements
AS 3582 Supplementary cementitious materials for use with Portland and blended cement
AS 3583 Methods of test for supplementary cementitious materials for use with Portland and blended cement
AS 4489 Test methods for limes and limestones

2.3.1 Guide to the RMS Specifications

CR082 Guide to QA Specification R82
CR132 Guide to QA Specification R132
NJ3252 Guide To The Selection of Polymer Modified Binder
NR44 Guide to Roads and Maritime Services (replacing Roads and Traffic Authority) QA Specification R44
NR106 Guide to QA Specification R106 - Sprayed Bituminous Surfacing (With Cutback Bitumen)
NR107 Guide to QA Specification R107 - Sprayed Bituminous Surfacing (With Polymer Modified Bitumen)

2.3.2 Pavements – Flexible

RMS R71 Unbound and Modified Pavement Course
RMS R73 Construction Of Plant Mixed Heavily Bound Pavement Course
RMS R75 In Situ Pavement Recycling by Deep-Lift Cementitious Stabilisation
RMS R82 Lean-Mix Concrete Subbase
2.3.3 Bituminous Products

- RMS 101 Cold Milling of Road Pavement Materials
- RMS 103 High Pressure Waterblasting of Bituminous Seals
- RMS 106 Sprayed Bituminous Surfacing (with Cutback Bitumen)
- RMS 107 Sprayed Bituminous Surfacing (with Polymer Modified Bitumen)
- RMS 109 Bituminous Slurry Surfacing
- RMS 110 Coloured Surface Coatings for Bus Lanes and Cycleways
- RMS 111 Sprayed Bituminous Surfacing (with Bitumen Emulsion)
- RMS 112 Sprayed Bituminous Surfacing (for Enrichment & Rejuvenation)
- RMS 113 Sprayed Bituminous Surfacing (with Fibre Reinforcement)
- RMS 116 Heavy Duty Dense Graded Asphalt
- RMS 119 Open Graded Asphalt
- RMS 121 Stone Mastic Asphalt
- RMS 123 Thin Open Graded Asphalt Surfacing

2.3.4 Material Specifications

Soils and Gravels
- RMS 3061 Bound and Unbound Material for Pavement Repairs
- RMS 3051 Granular Base And Subbase Materials For Surfaced Road Pavements
- RMS 3071 3071 Selected Material in Formation
- RMS 3151 Cover Aggregate for Sprayed Bituminous Surfacing
- RMS 3152 Aggregates For Asphalt
- RMS 3153 Reclaimed Asphalt Pavement Material
- RMS 3154 Granulated Glass Aggregate

Bituminous Materials
- RMS 3252 Polymer Modified Binder
- RMS 3253 Bitumen for Pavements
- RMS 3254 Bitumen Emulsion
- RMS 3256 Comminuted Scrap Rubber
- RMS 3258 Aggregate Precoating Agent (Bitumen Classes 170 and 320)
- RMS 3259 Bitumen Adhesion Agent (Bitumen Classes 170 and 320)
- RMS 3261 Cutback Bitumen
- RMS 3263 Hot Poured Elastomeric Joint Seal And for Roads
- RMS 3266 Cold mix Asphalt
- RMS 3268 Aggregate Pre-coating Agent (Polymer Modified Bitumen)
- RMS 3269 Bitumen Adhesion Agent (Polymer Modified Bitumen)

3 UNBOUND AND MODIFIED PAVEMENT COURSE

Unbound and modified pavement course must be according to RMS R71.

4 STONE MASTIC ASPHALT

Stone Mastic Asphalt construction must be according to ACT edited RMS R121.

5 THIN OPEN GRADED ASPHALT SURFACING

Thin Open Graded Asphalt Surfacing (TOGAS) construction must be according to ACT edited RMS R123.

6 SPRAYED BITUMINOUS SURFACING (WITH CUTBACK BITUMEN)

Sprayed Bituminous Surfacing (with cutback bitumen) construction must be according to ACT edited RMS R106.
7  **SPRAYED BITUMINOUS SURFACING (WITH POLYMER MODIFIED BITUMEN)**

Sprayed Bituminous Surfacing (with polymer modified bitumen) construction must be according to RMS R107.

8  **SPRAYED BITUMINOUS SURFACING (WITH EMULSIFIED BITUMEN)**

Sprayed Bituminous Surfacing (with emulsified bitumen) construction must be according to RMS R111.

9  **BITUMINOUS SLURRY SURFACING**

Bituminous slurry surfacing construction must be according to ACT edited RMS R109.

10 **HEAVY DUTY DENSE GRADED ASPHALT**

Heavy Duty Dense Graded Asphalt construction must be according to ACT edited RMS R116.

11 **OPEN GRADED ASPHALT**

Open Graded Asphalt construction must be according to RMS R119.

12 **COLOURED SURFACE COATINGS FOR BUS LANES AND CYCLEWAYS**

Open Graded Asphalt construction must be according to ACT edited RMS R110.

13 **REFERENCES**


14  STANDARD DRAWINGS