

Technical Publication News


Technical Publications

Industry update - October 2017

The Department of Transport and Main Roads is committed to continually reviewing and improving our technical publications to ensure we deliver best value for money and embrace the latest technological advancements.

To help you stay informed about any upcoming changes to technical publications we have provided a look ahead of proposed amendments, we have broken these into three timelines: next 3 months, 3 to 6 months and into the future.

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PHASE 1 - Next three months

SPECIFICATIONS and DRAWINGS

MRTS11 - Sprayed Bituminous Surfacing (Excluding Emulsion)

Facilitate increased use of crumb rubber modified binders, implement new TMR sprayed seal design supplement, alignment with Austroads & address feedback.

MRTS30 - Asphalt Pavements

Amendments include reduced level of service provisions for asphalt with low insitu air voids, changes to the requirements for level and layer thickness and the addition of proof rolling of the substrate to identify weak support conditions prior to asphalt placement. Additional minor changes aimed at improving the performance characteristics of asphalt mixes have also been made.

NEW MRTS32 - High Modulus Asphalt (EME2)

Replace pilot specification with updated generic specifications and align with latest version of MRTS30. Important document for appropriate selection, design and construction of road pavements with EME2 asphalt.

MRTS45 - Road Surface Delineation

Amend specification for RRPM's and spacing of ATLM ribs to align with national practice.

MRTS91 - Conduits and Pits

Amended to provide clarity on the existing requirements for batch approval process and concrete.

MRTS93 - Traffic Signals

Loop installation procedure clarified.

MRTS204 - Vehicle Detectors and Associated Drawings

Additional requirements for radar detectors following outcome of field trial results (lane occupancy, environmental operating conditions) and replacement of C-tick / A-tick with ACMA RCM compliance. Requirement for use of pre-formed loops for all new pavement surfaces.

NEW MRTS211 - Pedestrian Push Buttons & Audio Tactile Drivers

Provides specifications for the inclusion of demand indicators in pedestrian push buttons.

MRTS257 - Feeder Cable and Loop Cable for Vehicle Detector

Loop installation procedure clarified. Additional requirements for radar detectors following outcome of field trial results (lane occupancy, environmental operating conditions) and replacement of C-tick / A-tick with ACMA RCM compliance. Requirement for use of preformed loops for all new pavement surfaces.

SD1328 - Road Lighting / ITS – Lighting / Camera Pole Anchor Cage Fabrication Details

Updated drawing provides fabrication details for anchor cages that meet current cabling requirements.

SD1363 - Traffic Sign - Multiple Traffic Sign Support - Drawing 1 of 2 Standard Posts / Drawing 2 of 2 Breakaway Posts

Correction of Grade Steel Plate to Grade 250. Titles of drawings renamed to better reflect the content.

SD1380 - Road Lighting - Slip Base Pole and Footing Installation Details for No Crossfall

SD1381 - Road Lighting - Slip Base Pole and Footing Installation Details for Crossfalls up to and including 1:6

SD1382 - Road Lighting - Slip Base Pole and Footing Installation Details for Crossfalls Greater than 1:6 up to and including 1:3

Introduction of 100 mm diameter void in mortar to ease slip base wiring installation. It also facilitates effective pole drainage.

SD1389 - Road Lighting - Slip Base Pole Male / Female Connectors Installation Details

SD1400 - Road Lighting - Slip Base Pole Wiring Details

Introduction of 100 mm diameter void in mortar to ease slip base wiring installation. It also facilitates effective pole drainage.

SD1404 - Traffic Signals - Mast Arm Anchor Cage Fabrication Details

Updated drawing provides fabrication details for anchor cages that meet current cabling requirements.

SD1411 - Road Lighting - Mast Arm Road Lighting Junction Box (Type B)

Drawing reviewed and minor drafting updates applied.

SD1424 - Traffic Signals - Detector Loops Installation Details Asphalt Pavement

SD1425 - Traffic Signals - Detector Loops Placement Details

Clarified the conduit size (Item 102) which is located from end of wiring loops to the pit.

SD1426 - Traffic Signals - Detector Loops Standard Configuration

To maintain consistency, inductance values removed, and Q factor values from AS1703 used.

SD1437 - Traffic Signals - Hinged Base Plate for Traffic Signal Post Fabrication Details

Consistency of formatting of notes with SD1421.

SD1438 - Traffic Signals - Hinged Base Plate for Traffic Signal Post Installation

Hinge base plate raised to prevent rubbish from collecting around the base plate.

SD1639 - Road Lighting - Slip Base Pole Retrofit 2 Pin Plug and Socket Installation

Introduction of 100 mm diameter void in mortar to ease slip base wiring installation. It also facilitates effective pole drainage.

SD1680 - Traffic Signals / Road Lighting - Extension to Light Pole and Mast Arm Anchor Cages

Updated drawing provides fabrication details for anchor cages that meet current cabling requirements.

SD1681 - Traffic Signals / Road Lighting - Riser for Type 60 Circular Cable Jointing Pit

Correction required to Note 1 Circular pit riser dimensions. Title change to provide clarity with other documents.

SD1701 - Traffic Signals - Detector Loops Counting / Right Turn Loops and Diode Connection Details

Drawing reviewed and general drafting updates applied.

SD1702 - Traffic Signals - Detector Loops Motorway Management Placement Details

Drawing reviewed and general drafting updates applied.

MANUALS

Drafting & Design Presentation Standards (DDPSM) Volume 3 Structural Drafting Standards - Chapter 9 Bridge Deck Types

Amendments reflect reference changes in other departmental publications and SD2045. Improved clarity in wording and diagrams.

NEW Drafting & Design Presentation Standards (DDPSM) Volume 3 Structural Drafting Standards Chapter 21 - Major Sign Structures

New chapter provides a set of minimum details required for inclusion in sign gantry designs.

Manual of Uniform Traffic Control Devices (MUTCD) harmonisation

National harmonisation with AS1742

- Part 1 General introduction and sign illustrations
- Part 5 Street name and community facility name signs
- Part 12 Bus, transit, and truck lanes.

Traffic Control (TC Signs)

Updating TC Signs issued from September to December 2017.

Traffic and Road Use Management Manual (TRUM) Volume 4 Part 4 Rate 3 Road Lighting Junction Box Assembly

Incorporate enhanced rate 3 road lighting junction box kit instructions. New kit will save installation time and lead to potential cost savings. Modification of design may be required by some manufacturers.

Traffic and Road Use Management Manual (TRUM) Volume 4 Part 5 Configuration and Placement of Vehicle Detection Sensors

Loop detectors installation procedure clarified.

Traffic and Road Use Management Manual (TRUM) Volume 4 Part 6 Periodic Verification Guide for Traffic Signals: Road Lighting and ITS Equipment Installations

EFLI values and Figure C revised to ensure the safe work procedures.

CONTRACTS

Transport Infrastructure Contracts (TIC)

Updated twice yearly to incorporate best practice and changes resulting from legislation. Industry bodies will be consulted on major changes.

TECHNICAL NOTES

TN148 – Asphalt Mix Design Registration

Updated to include the process for registration of EME2 mix design.

NEW TN174 – Purchasing Guidelines for TMR Major Sign Structures

This document supplies a comprehensive list of relevant publications for the purchase, fabrication, installation and inspection of major sign structures.

NEW TN175 – Selection and Design of Sprayed Bituminous Treatments

Provides technical guidance to ensure a more consistent approach to sprayed seal design on departmental projects.

PHASE 2 - Three to six months

SPECIFICATIONS and DRAWINGS

MRTS14 - Road Furniture

Amending reference to revised Australian Standard for sign sheeting and specification for sign posts for signs less than 1 sqm.

MRTS25 - Steel Reinforced Concrete Pipes

Addressing Industry concerns and harmonisation.

MRTS71A - Stainless Steel Reinforcing

Alignment with MRTS71.

NEW MRTS104 - Geogrid: Retarding Pavement Reflective Cracking using Asphalt Geosynthetics

No existing specification - address procurement need - provide guidance for Asphalt Geosynthetics selection. Resulting improvements in pavement layer will be reduction in whole-of-life cost.

MRTS228 - Electrical Switchboards

Incorporate electricity supply authority meters (enable use of metered tariffs). Equipment design changes for manufacturers wishing to supply.

SD1149 – Traffic Signals / Road Lighting / ITS - Installation of Underground Electrical and Communications Conduit

SD1314 – Traffic Signals / Road Lighting - Cable Jointing Pit Drainage Details

Standardise backfill material for trench and pits.

Standard Drawings - Revision and publishing of the most frequently used Structures and Civil standard drawings into 3D format, to enhance digital engineering capability and accessibility for all users.

MANUALS

Consultants for Engineering Projects (MCFEP)

Procurement practice changes (incl. electronic tendering, WoG ECS and peer review). Aim to improve user efficiency and understanding.

Transport Infrastructure Project Delivery System (TIPDS) VOL 2 & 3

Revisions subject to new engineering policies and stakeholder feedback.

Pavement Design Supplement

Update to align with the new Austroads Guide to Pavement Technology, Part 2: Pavement Structural Design which is expected to be published in October 2017.

Road Planning and Design Manual

To update parts in line with Austroads Guide to Road Design releases.

Roadside Advertising Manual 2017 (comprises three volumes: Administration, Assessment and Technical)

The Roadside Advertising Manual 2017 is a redesign and restructure of the Roadside Advertising Guide (2009 - 2017).

Traffic and Road Use Management Manual (TRUM) Volume 1 Part 9 Traffic Operations, Section 6.2-1 'Special events affecting roads in Queensland: A guide to securing approvals'

Incorporation of Special Event Marshals.

Traffic and Road Use Management Manual (TRUM) Volume 1 Part 9 Traffic Operations, Section 8.2.1 'Design Guidelines for the Provision of Managed Motorway Ramp Signalling'

Review required following District Office feedback.

POLICIES

Unusually Low Bid Evaluation (EP159)

Incorporate industry feedback and departmental strategic alignment. To be incorporated into Transport Infrastructure Project Delivery System (TIPDS).

CONTRACTS

Routine Maintenance Performance Contract

Incorporate amendments to be applied by Local Government and RoadTek.

PHASE 3 - Future

SPECIFICATIONS and DRAWINGS

MRTS08 - Plant-Mixed Stabilised

Lightly Bound Pavements using Cement or Cementitious Blends - Alignment with approach adopted for MRTS10 (formerly known as Cement Modified Bases (CMBs) / materials).

MRTS61 – Mounting Structures for ITS Devices

Content review required.

MRTS70 - Concrete

More than five years old and requires harmonisation. Version 4.0 issued for industry information only. Formal industry wide consultation expected to commence late August. Changes may also cascade to MRTS24, MRTS72 & MRTS73.

MRTS78 - Fabrication of Structural Steelwork

Updating specification to align with industry changes and customer needs.

MRTS79 - Fabrication of Aluminium Components

Improve clarity of document and align with MRTS78.

NEW MRTSXXX - Specification on Ancillary Equipment Monitoring & Control (tunnel lighting, pump stations, UPS)

Detail TMR expectations. Minor impact on industry.

NEW MRTSXXX - Building Information Management (BIM)

To achieve a consistent approach for the delivery of bridge projects using BIM technologies and ensures that TMR will be able to use and operate the BIM models into the future. This will also assist with key asset management practices.

MANUALS

Bridge Scour Manual

More definitive advice on scour protection for bridges.

Contract Administration System (CAS)

Alignment to 3PCM process changes, make manual more user-friendly.

Design Criteria for Bridges and Other Structures

Revision to incorporate new AS5100 (2017) standards for Bridge Design.

MUTCD harmonisation

National harmonisation with AS1742

- Part 2 could be harmonised in May 2018
- Part 3 Traffic control devices for works on roads
- Part 9 Bicycle facilities
- Part 15 Direction signs, information signs and route numbering.

Pavement Design Supplement

Will be updated to align with Austroads Guide to Pavement Technology - Part 2 mid 2017 release. Important document for pavement designers.

Road Drainage Manual

Update design practices such as runoff estimation techniques to align with release of ARR (2016).

Tourist, Service and Welcome Signs Manual

Streamline the guidelines for the application of tourist, service and welcome signs for Tourist operators, Regional Tourism Organisations, TMR Districts and the general public.

Traffic and Road Use Management Manual (TRUM) Volume 1 Part 4, 5, 6, 9 and 10

Harmonisation to updated Austroads Guides.

Traffic and Road Use Management Manual (TRUM) Volume 3 Guide to Pavement Markings

Review and update of content.

POLICIES

Procurement of Infrastructure Project Thresholds (EP150)

Incorporate industry feedback and departmental strategic alignment.

Low Value Infrastructure Procurement (EP160)

Policy to explain new contract type for very low risk / low value work.

GUIDELINES

Guidelines to Quality System in Infrastructure Delivery

Awareness of updates will be relevant to all Contract Administrators.

Guidelines for Audit Surveillance on Construction Projects

Content may be incorporated in to CAS manual.

Approved Products and Registered Suppliers

The department's Approved Products and Registered Suppliers for infrastructure works are frequently updated. To see the status and how to register view via [Approved Products and Registered Suppliers](#).

Definitions

SPECIFICATIONS and DRAWINGS: Rules and procedures by which a product, process or activity can be specified or defined.

CONTRACTS: The binding legal agreements between two parties.

TECHNICAL NOTES: Provide clarity or additional options not previously detailed in a Specs, Manuals or Guidelines or address emerging issues.

MANUALS: Technical information gathered into a single publication, discipline based.

POLICY: Provides a desired position and a guide for action.

GUIDELINES: Provide options on actions that will achieve optimal outcomes in line with Technical Standards.

 Consultation underway

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