

Technical Publication News

Technical Publications

Industry update – November 2024

The Department of Transport and Main Roads (the department) 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 two timelines: next four months, and into the future.

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📄 tmr.qld.gov.au/business-industry/Technical-standards-publications

NEXT FOUR MONTHS (November 2024 – February 2024)

SPECIFICATIONS

MRTS94 Road Lighting

- Principal supply requirement for Smart Lighting Controllers (SLC's) removed.
- High Intensity Discharge luminaire and lamp requirements, references, and work items removed.

MRTS232 Provision of Field Processors

- Updated reflecting newly developed hardware and specifications mitigating the risks of legacy products being 'end of life' and 'end of sale'.

STANDARD DRAWINGS

SD1602 Chainwire Fences and Gates Standard Drawing

- Alignment with current Transport and Main Roads standards.
- The post-on-base-plate installation detail has been removed due to the high cost of installation.
- A requirement has been added for using this fence in rockfall protection.
- A requirement has been added for using this fence adjacent to roads or traffic.
- A concrete strip with a galvanized hook has been proposed as an option.
- The strainer post design is now in accordance with AS 1725.
- The bracing stay is now proposed to connect directly to the fence posts, rather than to the concrete footing.

NEW SD4004 Precast Planks for Boat Ramp - Type T4000 FRP

NEW SD4033 Boat Ramp Construction - Concrete Slab and Joint Details (GFRP Reinforced)

NEW SD4034 Boat Ramp Construction - Information Signs Materials and Installation

- New issue to replace a withdrawn drawings for glass fibre reinforced slabs and precast planks to reflect emerging technology.

MANUALS

Building Information Modelling (BIM) for Bridges Manual

- Based on feedback from our industry partners additional BIM object codes have been defined for Restraint plates, Winged planks, cover plates, and lighting brackets in this release of the *BIM for Bridges Manual*.
- Other minor modifications have been made to diagrams and wording for nomenclature consistency surrounding 'BIS structure I.D number' and a clause about modelling units.

NEW Building Information Modelling (BIM) for Intelligent Transport Systems and Electrical (ITS&E)

- Transport and Main Roads is publishing the *BIM for ITS&E* to complement the suite of departmental BIM documents, including *BIM Exchange Information Requirements (EIR)*, *BIM for Transport and Main Roads Guideline* and *BIM for Bridges Manual* to support the implementation of BIM within the department in line with the State Government BIM principles.

Drafting and Design Presentation Standards Manual (DDPSM) Volume 3: Structural Drafting Standards

- Provide stakeholders with departmental preferences and minimum requirements when preparing engineering drawings for the department's structural projects with an updated concise manual that is better harmonised with the departments 2D and 3D drafting standards, and national standards, ensuring continuance of knowledge sharing without loss.

Queensland Guide to Road Safety

Part 3 Safe Speeds

Part 4 Safe People

Part 5 Safe Vehicles

Part 7 Road Safety Strategy and Management

- This update aligns with the latest update to Austroads Guide to Road Safety (July 2024) in accordance with Transport and Main Roads ongoing commitment to national harmonisation.

NEW Queensland Guide to Traffic Management (QGTM)

Part 7 Activity Centre Transport Management

- Harmonised to Austroads *Guide to Traffic Management* Part 7

WITHDRAWN Traffic and Road Use Management (TRUM) Volume 1: Guide to Traffic Management Part 7: Traffic Management in Activity Centres

- This document is withdrawn, with harmonised content being republished in QGTM Part 7.

Queensland Road Safety Technical User Volumes (QRSTUV): Guide to Speed Management Manual

Changes impact delivery of speed limit reviews by road authorities to improve road safety outcomes for all road users.

Road Planning and Design Manual (RPDM) Volume 3, Part 1: Objectives of Road Design

Updates to Section 5:

- Appropriate wording to stipulate it will now be a requirement that Road Design Unit, Engineering and Technology Branch, Transport and Main Roads be engaged to peer review OnQ Type 1, Type 2 and major projects (Project Assurance Framework) throughout the design lifecycle from detailed planning to finalisation phases.

- Additional content to include Design Development Reports as 'live' documents from utilised from Strategic Planning to Finalisation.

Updates to Appendix A:

- Relevant content from the withdrawn Preconstruction Processes Manual, edited and incorporated, related to the design development process and design management. Terminology and references will be updated as required.
- Incorporated commentary provided by representatives from Project Management Improvement (PMI) and the Project Management Strategic Advisory Group (PM SAG).
- Improved definition on design involvement during project management and how it is integrated.
- Greater clarity on design deliverables for each stage within the design lifecycle.
- Revised expected design deliverables for defined percentage completed at concept, business case and detailed design stages.

Structures Inspection Manual

- Review for currency and align inspection practice with modern asset management for structures.

Transport Infrastructure Delivery System (TIPDS) Volume 3

- Minor amendments to 'Transport and Main Roads additional requirements of key personnel', and new text added to 'Notes' made in Appendix B – Criteria 2: Company resources and technical capability.

GUIDELINES

NEW Guideline on Preparation Pavements for Resealing

- Guideline to assist project managers scope and program preparatory works prior to delivery or the annual road reseal program.

TECHNICAL NOTES

TN23 Design Criteria for Precast Drainage Pits

- Design life for all drainage pits, up to 3m deep shall now be 50 years and pits deeper than 3m, is now 100 years. Previously the demarcation was at 5m.
- Precast circular shape drainage pit is included.
- The requirement for penetration size related to the pipe diameter is added to avoid oversizing of the penetration.
- Provided design approval process for proprietary pits and project specific pits.
- Added requirements for rectangular precast drainage pit manufactured with glass fibre reinforced polymer reinforcing bars.

TN158 Guide to the Use of LED Road Lighting Luminaires

- Updated to align with Australian Standards AS/NZS 1158.1.1 and MRTS94 Road Lighting.
- Transport and Main Roads have added new product approved LED luminaires to the existing Fleet of LED luminaires, Luminaire Selection Guide updated to reflect changes.

TN159 Treatment of Non-compliant Underground Wiring Systems (UWS) in Brownfield Installations

- Title change from *Treatment of Under-depth Underground Wiring Systems (UWS) in Brownfield Installations*.
- Aims to clarify the issue of legacy installations prior to 2006 and proposes a solution for installing cables in these legacy conduits while still ensuring compliance with safety principles (Part 1 of AS/NZS 3000). It also addresses the evolving needs of critical infrastructure projects that require cable threading through existing installations with non-compliant conduits.
- Addresses other queries raised by users of the document, such as defining the document's scope and roles regarding individuals responsible for assessing risks.

NEW Earth Bonding Retrofits for Pedestrian and Bicycle Pushbuttons Technical Note

- Provide guidance and installation requirements necessary for the retrofitting of Pedestrian and bicycle pushbutton posts (stumpy posts) with protective earth bonding

NEW Transport Noise Management Code of Practice Volume 1, Road Traffic Noise Technical Note

- Developed to supplement the existing *Transport Noise Management Code of Practice, Volume 1, Road Traffic Noise*. This Technical Note provides clarification for noise assessments and enhance Transport and Main Roads' ability to achieve its General Environmental Duty under the *Environmental Protection Act (1994)*.
- Provides clarity for consultants and project managers, leading to more consistent tendering, streamlined review processes, less project delays and better project results relating to noise. Additionally, the reduction of noise impacts to the community will be further strengthened with increased noise abatement performance checks through post construction compliance checking. There is also more robust determination of new road criteria, consideration of new road noise impacts in conjunction with existing state-controlled roads and consideration of approved developments for noise abatement.

CONTRACTS

Infrastructure Contracts

Transport Infrastructure Contract (TIC-CO, TIC-SI and TIC-DC)

Minor Infrastructure Contract (MIC-CO and MIC-SI)

Small Scale Minor Works Contract (SSMW)

- Updating Infrastructure documents to align with the latest government policies, legislations, and stakeholder feedback.

Consultants for Engineering Projects (CFEP) manual

C7511 Information Brochure

C7512 Application Form

- Changes made to clarify the quality system requirement for BD category.
- More clarification provided about the timeframe, capabilities, and project information for all the categories.
- Updates for the GE category to provide more clarity for the prequalification requirements.
- TMD and some traffic modelling software requirements are removed from the TE category.

C7513 Curriculum Vitae for Prequalification

WITHDRAWN C7514 Curriculum Vitae for Tender

- Currently, there are two CV templates (C7513 & C7514) under CFEP, one for prequalification application and another for tender submission. To avoid duplication of works for the consultants, C7514 is deleted and C7513 is updated to allow using this template for both prequalification application and tender submission.

OTHER

NEW Building Information Modelling (BIM) File Naming Convention

- Guidance on the department's preferred metadata codes to be used in the naming of the files to align with nominated fields of BIM File Naming Convention. Consistency of files across all projects using BIM.

Design Considerations Checklist

- Design Considerations Checklists are editable templates for assistance in design development. They will function as self-checking aids for design teams to ensure that all relevant components of projects are successfully developed during progressive stages during the concept and development phases of project lifecycles. The templates would likely be an attachment to Design Development Reports.

Design Development Report (Small Projects) and Design Development Report (Large Projects)

- Templates amended to acknowledge the Planning phase (Strategic and Detailed planning), define and include elements expected to be handed over for Concept phase options analysis.

Display of Information on Variable Message Signs (VMS) Organisational Policy

- Revised policy statement to reflect the importance of VMS in the operation of an efficient and reliable transport network.
- Expansion of policy scope to clearly outline what is in scope and what is out of scope.
- Updating message type, hierarchy and priority to reflect the content previously published in the *Traffic and Road Use Management Manual*, noting this content has been removed from the Queensland *Guide to Traffic Management* including:
 - splitting Category 1 (Incident) priority messages into 2, being 1 (Incident) and 1E (Disaster or emergency incidents).
 - inclusion of approval, conditions of display and text case selection criteria, and
 - clarity around filler messages – what constitutes a road safety message and a general transportation message.
- Replaced reference to TRUM *Part 2.9 Variable Message Signs Use and Operation Guideline* reference with the soon to be released Queensland *Guide to Traffic Management Part 10 Transport Control – Types of Devices*.
- Inclusion of new content to clarify the department's policy position on single and multiple frame messages; use of abbreviations; driver distraction; use of conspicuity devices; and pictorial messages and symbols.

FUTURE UPDATES AND NEW RELEASES

NEW GUIDELINES, MANUALS, POLICIES TECHNICAL NOTES AND FORMS

NEW Non-Transport Utility Management and Design Manual

- Replaces TN163 *Third Party Utility Infrastructure Installation in State-Controlled Roads Technical Guidelines* revised in line with current industry standards and provides additional clarity for improved design and management of Third-Party Utility infrastructure installations that meet the departments expectations. Opportunity for consultation soon.

FUTURE UPDATES

Technical Specifications

- **MRTS03 Drainage Structures, Retaining Structures and Embankment Slope Protections** revisions based on feedback from stakeholders, including checks against current Standard Drawings, NACOE research reports, and enquiries and non-conformance reports (NCR) from construction sites across Queensland.
- **MRTS24 Manufacture of Precast Concrete Culverts** harmonisation and alignment to MRTS70 *Concrete* and *Austroroads Technical Specification* ATS 2230 *Supply of Small Box Culverts*.
- **MRTS25 Steel Reinforced Precast Concrete** harmonisation with *Austroroads Technical Specification* ATS 2210 *Supply of Steel Reinforced Precast Concrete Pipes* and removal of non-manufacture clauses.
- **MRTS52 Erosion and Sediment Control** update to accommodate release of new Technical Specification MRTS53 *Erosion and Sediment Control – Provisional Sum Method*.
- **MRTS53 Erosion and Sediment Control – Provisional Sum Method** alternate erosion and sediment control to MRTS52 *Erosion and Sediment Control*, developed to provide a standardised approach to high risk (environmentally) projects using a Provisional Sum method to pay for project temporary Erosion and Sediment Control (ESC) costs.
- **MRTS88 Protective Coating for New Work** update to provide more performance-based criteria and broaden the types of coatings that are covered. Update will incorporate *Austroroads Technical Specification* criteria.
- **MRTS92 Traffic Signal and Road Lighting Footings** review and update in conjunction with the revision of the suite of associated standard drawings.
- **MRTS97 Mounting Structures for Roadside Equipment** review and improve clarity and design based on feedback from industry to improve safety for road users.
- **MRTS200 General Requirements for Intelligent Transport Systems Infrastructure** update to clause 4.5 that all professional engineering services shall be undertake in accordance with the Queensland *Professional Engineers Act (2002)*.

- **MRTS211 Pedestrian Push Button** general review of the specification and inclusion of touchless sensor type to the specification, and touchless push buttons provide health benefits as well as better accessibility.

Manuals

- **Boat Ramp Design Manual and MRTS300 Boat Ramps** general review for the manual, including updates to Clause 10.9, Referenced documents and MRTS300.2 Form F changes.
- **Queensland Guide to Traffic Management (QGTM), Part 10: Guideline Bicycle Awareness Zones** general review and restructure of content to assist with document clarity and alignment with departmental documentation and guidelines.
- **Temporary Traffic Management (TTM) Training Updates** to reflect the changes in training requirements to meet the TTM new guidelines and practice.
- **TMR Surveying Standards Manual** updates to align with the rapid advancement of equipment and software technology such as drones, airborne and terrestrial LIDAR, underwater scanning / sonar, methods of data capture and all forms of transport infrastructure.
- **Traffic and Road Use Management (TRUM) manual Volume 4, Part 3**
- Changes due to improvements in technology and processes that impact on the design and delivery of operational technologies including road lighting and intelligent transport applications.

Other

- **Compliance evaluation forms for MRTS201 General Equipment Requirements, MRTS202 Variable Message Signs and MRS253 Traffic Signal Lanterns** evaluation forms to assist in the product evaluation process.
- **Hazard Reduction Burns within the State-controlled Road Corridor** Updates focus on greater clarity and explanation for external stakeholders to provide a consistent and standardised approach to bushfire management.

Standard Drawings

Review for currency and alignment with other departmental documents and guidelines and industry standards for:

- **SD881 Cane Railway Crossings - Asphalt Paved and Concrete**
- **SD1045 Revegetation - Treatment of Cut Batter**
- **SD1116 Subsoil Drains - Outlets and Cleanouts**
- **SD1178 Diversion of Water - Diversion of Water from Roadway and Table Drains**
- **SD1359 Culverts – Installation, Bedding and Filling / Backfilling against other Culverts**
- **SD1380, SD1381, SD1382, SD1392, SD1393, SD1395, SD1396, SD1403, SD1429, and SD1684** revision to full suite of pole footings and installation standard drawings that align with current standards.
- **SD1446 Kerb Ramp - Ramped Kerb Crossing and SD1447 Median and Island Crossing – Ramped and Cut-Through Treatment for Pedestrian Facilities**
- **SD1468 Single Slope Concrete Barrier - Extruded Median Barrier - Barrier, Reinforcing and Expansion Joint Details**
- **SD1469 Single Slope Concrete Barrier - Fabrication and Installation Details for Cover Plates at Road Lighting Poles in Concrete Barriers**
- **SD1615 Fauna Exclusion Fencing - Floppy Top Mesh Fence and Gate** update regarding gate arrangement and maintenance.
- **SD1643, SD1644, SD1647, SD1650, SD1651, SD1653, SD1654.** review regarding proposed updated to **MRTS16 Landscape and Revegetation Works**.

WITHDRAW SD1484 Steel Beam Guardrail - Batter Slope Terminals 1 on 1 and Steeper - General Arrangement and Installation Details

WITHDRAW SD1485 Steel Beam Guardrail - Batter Slope Terminals 1 on 1 and Steeper- Concrete Terminal Block

- Transport and Main Roads no longer permits new public domain steel beam guardrail installations and as such SD1484 and SD1485 are no longer required. In cases where these drawings are needed for repair and maintenance, a withdrawn watermarked version will remain accessible via this [Standard Drawing webpage](#).

Cycle Infrastructure updates

NEW Accepted Physical Separation Device Products Register, Application Requirements and Checklist

- New approved product register that specifically captures products approved for use physical separation devices for protected bicycle lanes and cycle tracks.

Queensland Guide to Traffic Management (QGTM), Part 10: Guideline Bicycle Awareness Zones

- Change the title to: Physical separation devices for protected bicycle lanes and cycle tracks.
- Update figures / photos with more generalised or diagrammatic figures.
- Update guidance to include language and definitions of bicycle lane separation devices.
- Design considerations for cycle track facility selection to be relocated from the *Selection and Design of Cycle Tracks Guideline* to QGTM Part 10.

Road Planning and Design Manual (RPDM) Vol 3, Part 3, 4, 4B, 4C, 6A

- Design considerations for cycle tracks to be relocated from the selection and design of cycle tracks guideline to the relevant part of RPDM.

Selection and Design of Cycle Tracks Guideline

- Change the title to: *Physical separation devices for protected bicycle lanes and cycle tracks*.
- Provide definition of, and reference to e-mobility in key sections of the guide, utilising consistent language and definitions.
- Include new section on Safe System Assessment.
- Relocate technical guidance from the guideline to the relevant parts of RPDM and QGTM, retaining the non-technical guidance in its current location, and establishing cross-referencing to the relocated information.

APPROVED PRODUCTS AND REGISTER 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 STANDARD 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 specification, manual or guideline, 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.