

Roads

Master Specification

RD-LM-S3 Supply of Guide Posts and Delineators

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RD-LM-S3 Supply of Guide Posts and Delineators

1 General

1.1 This Part specifies the requirements for the supply of semi-flexible and flexible (buried or driven) guide posts and delineators.

1.2 The following definitions apply:

Term	Definition
Flexible guide post	A guide post which deflects when impacted by a vehicle and then returns to a vertical position, without maintenance intervention.
Semi-flexible guide post	A guide post which fails by bending when impacted by a vehicle and can be straightened with maintenance intervention.

1.3 Documents referenced in this Part are listed below:

- a) AS 1348 Road and Traffic Engineering – Glossary of Terms.
- b) AS 1906.2 Retroreflective Materials and Devices for Road Traffic Control Purposes Retroreflective Devices (Non – Pavement Application).
- c) AS 1742.2 Manual of Uniform Traffic Control Devices – Traffic Control Devices for General Use.
- d) AS 2312 Guide to the Protection of Structural Steel against Atmospheric Corrosion by use of Protective Coatings.
- e) AS 2700S Colour Standards for General Purposes.

2 Quality Requirements

2.1 Guide posts shall be approved by the Principal. A list of approved products is included in the Department's Approved Products List, available from: <https://www.dpti.sa.gov.au/documents>.

2.2 The Contractor may apply for approval of a guide post not included in the Approved Products List.

2.3 The Contractor acknowledges that for efficiency of maintenance, the Principal requires that the number of types of guide posts on the road network is kept to a minimum. The Principal reserves the right to withhold approval of any proprietary product at its absolute and unfettered discretion.

2.4 To obtain approval of a proprietary guide post, the Contractor shall provide a copy of:

- a) the details and dimensions of the guide posts;
- b) certification (not older than 3 years) that the guide posts have been tested in accordance with Clause 3.3 "Testing Requirements" and conform to all requirements of this Part (records of the Vehicle Impact testing shall be included);
- c) Manufacturer's Warranty in accordance with Clause 4 "Performance Warranty"; and
- d) the manufacturer's installation and disposal instructions.

2.5 This documentation shall be submitted at least 21 days prior to the supply of the guide posts. Any request for approval of a post shall include all necessary supporting information. New documentation shall be provided whenever a change in product formulation or design is made.

2.6 If a Departmental approved product will be used, the Contractor shall nominate the manufacturer and model of the guide post at least 7 days prior to the supply of the guide posts to the Site.

2.7 Approval of submissions on guide posts by the Principal constitutes as **Hold Point**.

3 Guide Posts

Design and Materials

3.1 Guide posts shall be:

- a) manufactured from recycled or recyclable material that is resistant to heat, low temperature, mould growth and breakage due to vehicle impact;
- b) designed to resist bending, twisting and displacement due to wind;
- c) resistant to vertical removal by persons other than authorised personnel using approved removal tools; and
- d) designed and manufactured such that there is no risk of injury to installers during the installation process or once in service.

3.2 Guide posts may be flexible or semi-flexible.

Dimensions and Shape

3.3 The guide posts shall meet the following dimensional requirements:

- a) a minimum projected width of 100 mm;
- b) a minimum thickness of 4 mm, unless it can be demonstrated that a smaller thickness will not adversely affect the free-standing performance of the post; and
- c) a minimum overall length of 1 350 mm.

3.4 The tops of guide posts shall be flat but, depending on the method of installation recommended by the manufacturer, the bottom may be either rectangular or pointed over a length of approximately 80 mm. The shape shall be such that approved delineators can be permanently and securely attached to the guide post.

Testing Requirements

3.5 Guide posts shall be tested to demonstrate compliance with TP 966 "Test Procedures for the Evaluation of Guide Posts" and Clause 10.2.3.7 "Vehicle Impact" of Queensland Department of Main Roads Specification MRS11.14 "Roadside Furniture", available from www.mainroads.qld.gov.au. Records of the Vehicle Impact Testing shall be provided.

Finish and Colour

3.6 The surface of the guide posts shall have a smooth gloss or semi-gloss finish over the entire length. It shall be free of roughness, sharp edges, discolouration and other objectionable marks or defects which may affect appearance, serviceability and attachment of delineators. The surface of guide posts shall be easily cleaned and the colour of the exposed portion of the guide post shall be whiter than Y35 (off white) of AS 2700.

Steel Post Coatings

3.7 Steel posts shall be coated with a system which will protect from corrosion and provide impact and abrasion resistance sufficient to withstand normal storage, handling and installation without damage. Only coating systems recommended in AS 2312, for Category D exposure and 5-10 years to first maintenance (or better) are allowable. The guarantee provided in accordance with Clause 4 "Manufacturer's Warranty" shall warrant that the coating will be free from corrosion, blistering, cracking, checking, flaking, peeling or any other defect for a period of at least 3 years.

Markings

3.8 The guide posts shall be marked with the month and the year of manufacture. A horizontal depth line, or other instructions necessary to correctly install the post at a height of 1,000 mm above ground, shall be marked on one of the faces of the guide post.

4 Manufacturer's Warranty

- 4.1 The Contractor shall provide a Manufacturer's Performance Guarantee Statement for the Guide Posts. At a minimum, it shall provide for full replacement of the guide post should any defect relating to manufacture become apparent within 3 years. The statement shall include full details of the guarantee and the service life expectancy.

5 Delineators

- 5.1 Guide posts shall be fitted with a delineator. Delineators shall:
- a) comply with the requirements of AS 1742.2;
 - b) be either Retroreflector - discrete device type or Retroreflector - sheeting type as defined in AS 1906.2;
 - c) be placed centrally between the edges of guide posts, with the top of the delineator 50 mm below the top edge; and
 - d) be attached to guide posts following completion of final protective coatings by a vandal-proof and weatherproof means so they can be replaced if necessary without damaging the post.
- 5.2 Where reflective sheeting is used, it shall have a minimum area of 100 cm² and minimum width of 50 mm when measured on a flat surface, and installed such that the sheeting manufacturer's preferred orientation for optimum performance is followed.

6 Test procedures

- 6.1 The Contractor shall use the following test procedures (refer https://www.dpti.sa.gov.au/contractor_documents) to verify conformance with the Specification:

Table RD-LM-S3 6-1 Test Procedures

Test	Test Procedure
Evaluation of Guide Posts	TP 966

7 Hold points

- 7.1 The following is a summary of Hold Points, referenced in this Part:

Document Ref.	Hold Point	Response Time
2.7	Approval of guide post details.	10 working days