Accepted products and suppliers: Traffic engineering, traffic management and road safety

Road Edge Guide Posts (REGP’s)
Application requirements

May 2019
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1. Enquiries

If you have any questions regarding this document, suggestions for improvement or would like to submit a product for acceptance for use in Queensland, please contact Transport and Main Roads (DTMR) - Traffic Engineering Practice

Email: Trafficengineering.support@tmr.qld.gov.au

2. Introduction

This document is relevant to Road Edge Guide Posts (REGP’s). This document is relevant only to flexible and rigid REGP’s being defined as:

- Flexible REGPs: posts capable of returning to, or within a margin of 5 degrees, of their original state post impact without assistance.
- Rigid REGPs: posts either incapable of returning to their original state post impact or requiring assistance by hand or mechanical means to return to, or within a margin of 5 degrees, of their original state.

This document specifies conditions in relation to:

- Requirements for submitting new REGP products for acceptance as compliant to standards (or resubmitting those previously accepted and lapsed);
- Requirements for extending currently accepted REGP products prior to the 3-year acceptance period concluding; and
- Submission requirements, standards and required inclusions;

3. Governing manuals and associated specifications and guidelines

- AS/NZS 1906.2:2007 Retroreflective materials and devices for road traffic control purposes – Retroreflective devices (non-pavement application)
- Manual of Uniform Traffic Control Devices (MUTCD) as published to the department’s website
- MRS14 Road Furniture Specification (Measurement)
- MRTS14 Road Furniture Technical Specification
- Road Edge Guide Posts (REGP’s) Acceptance Checklist

4. Acceptance of new products as suitable for use in Queensland

For a delineator product to be accepted as compliant for use in Queensland, the manufacture/distributor needs to complete the checklist provided in Attachment 1.

The completed checklist should be accompanied by documents to support the requirements of the checklist, the documents are to be submitted to the nominated contact in Section 1.

Additional documents and information as listed below should also be provided with the completed checklist to support the application process:
1. Colour
2. Surface Finish
3. Dimension
4. Weathering Resistance (Heat & Cold)
5. Vehicle Impact Test
6. Delineators
7. Performance Guarantee

A sample must also be provided to allow assessment of marking, standard and packaging to the nominated contact in Section 1.

5. Conditions of Acceptance

All products are accepted on the condition that the manufacture, design and installation are in accordance with the manufacturer's instructions.

A product’s acceptance will remain valid for three years from the date nominated on the letter of acceptance. If during this three-year period the product is redesigned in any way (i.e. changes are made to the product that may adversely affect its performance, durability or maintenance requirements), there is a change to any governing specifications, the manufacturing process changes, or the location of manufacturing changes the acceptance will cease and a reapplication for acceptance will be required.

Within two months of any three-year acceptance period expiring, the manufacturer/distributor is to notify the contact officer, nominated in Section 1, of intention to extend for a further three years and nominate either of the following:

- There has been no redesign of the product – further acceptance period granted
- The product has been redesigned – further acceptance period granted based on submission of relevant test results (either full suite or those relevant to the nominated changes)

Products may only be submitted for renewal once, with the maximum acceptance period for any product being six years, upon the lapsing of this six-year period, a reapplication for acceptance must be sought in line with Section 4. Additionally, if the acceptance period is allowed to expire, the product will need to be reassessed as per Section 4.
Attachment 1 – Road Edge Guide Posts – Acceptance Checklist
Road Edge Guide Post – Acceptance Checklist

June 2019
SECTION 1. APPLICANT INFORMATION

Applicant Name: __________________________ Date: __________________________
Applicant Company: __________________________
Product name: __________________________

Product Category: ☐ Rigid1 ▶ Complete Sections 2 and 4
☐ Flexible2 ▶ Complete Sections 2, 3 and 4

Product distributor: __________________________
Product manufacturer: __________________________
Location of manufacturing: __________________________
Date of letter of acceptance: __________________________
Contact details on register – name: __________________________
Corporate email: __________________________
Phone number: __________________________

Note: Please ensure that all relevant fields are filled in with all supporting information and that SECTION 5 APPLICANT DECLARATION is completed.
Completed form to be submitted to trafficengineering.support@tmr.qld.gov.au

1 Rigid REGPs: posts either incapable of returning to their original state post impact or requiring assistance by hand or mechanical means to return to, or within a margin of 5 degrees, of their original state.
2 Flexible REGPs: posts capable of returning to, or within a margin of 5 degrees, of their original state post impact without assistance.
SECTION 2. RIGID AND FLEXIBLE REGP CHECKLIST

2.1 **COLOUR**

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface is durable gloss or semi-gloss opaque white</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2 **SURFACE FINISH**

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product is free of sharp edges, burrs, discolouration or other defects which may affect appearance and/or serviceability</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.3 **DIMENSION**

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height of at least 1000 mm above ground surface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum anchoring depth of 500mm for buried posts and 350mm for driven posts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No more than 3% variance between individual post sizes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.4 **BENDING RESISTANCE – RIGID REGPs ONLY**

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum bending strength, at yield, at the weakest point of the road edge guide post (on a partially flattened section) shall be 0.3 kNm.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.5 **WEATHERING RESISTANCE**

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you able to provide either: a) A warranty period of ≥5 years; or b) Weathering test (1000 hours) results from a NATA approved lab.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.6 **DELINEATORS**

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplied with either two delineators (one white and one red) <strong>or</strong> with a single delineator (red, white or yellow)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineators affixed to ensure they are weatherproof and vandal resistant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineators are centrally located and placed so that the top of the reflector is between 50mm and 100mm from the top of the post.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator is rectangular with a minimum area of 100 cm² and minimum width of 50 mm <strong>or</strong> shall be circular (80 mm diameter) in configuration.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MRTS14 Retroreflectivity Requirement</th>
<th>Y/N/NA</th>
<th>Pass (Y/N/NA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>For <strong>rigid REGPs</strong>, the delineators shall consist of either:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Type A (corner cube) material which conforms with the requirements of AS/NZS 1906.2, or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Prismatic lens sheeting which meets the requirements of Class 1A material, as defined in AS/NZS 1906.2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For <strong>flexible REGPs</strong>, the delineators shall consist of prismatic lens sheeting which meets the requirements of Class 1A materials, as defined in AS/NZS 1906.2. Corner cube or rigid backed delineators that can be damaged by vehicular impact shall not be used on flexible road edge guide posts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 3. FLEXIBLE REGP CHECKLIST**

3.1 **DIMENSION**

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has a minimum width facing traffic of 100 mm.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 3.2 HEAT RESISTANCE

Two REGPs shall be conditioned 60 ± 2°C for a minimum of two hours in an oven and then subjected to heat resistance testing in accordance with Clause 10.2.3.5 of MRTS14.

<table>
<thead>
<tr>
<th>MRTS14 HEAT RESISTANCE TEST - the conditioned REGP shall be capable of:</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returning to within five degrees of the vertical position within 30 seconds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Test Results Received</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.3 COLD RESISTANCE

REGP shall be conditioned at 0 degrees C (+/- 2 degrees C), for 2 hours in an ice bath subject to the resilience and brittleness test as specified in Clause 10.2.3.6 of MRTS14.

<table>
<thead>
<tr>
<th>MRTS14 RESILIENCE TEST - the conditioned REGP shall be capable of:</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returning to within five degrees of the vertical position within 30 seconds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MRTS14 BRITTLENESS TEST – the conditioned REGP shall:</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show no signs of fracturing, cracking or splitting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Test Results Received</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.4 VEHICLE IMPACT TEST

REGP shall be capable of self-erecting and remaining serviceable after being subjected to a series of direct impacts by a typical passenger vehicle as specified in Clause 10.2.3.7 of MRTS14.

<table>
<thead>
<tr>
<th>MRTS14 VEHICLE IMPACT TEST - the conditioned REGP shall return to within 5 degrees of vertical within 30 mins of impact for:</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 bumper bar impacts at a speed of 60 km/h</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AND</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 bumper bar impacts at a speed of 100 km/h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MRTS14 Requirement</th>
<th>Y/N</th>
<th>Test Results Received</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

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### SECTION 4. PERFORMANCE GUARANTEE

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Y/N</th>
<th>Pass (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The manufacturer provided a guarantee statement with the nature and service life expectancy of the guarantee clearly indicated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The warranty period is endorsed in the documentation of the product.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 5. APPLICANT DECLARATION

I [name of applicant], as a representative of [name of company], acknowledge and verify that all information provided above is true and agree to the following:

☐ That I will inform DTMR should any of the information provided above change;

☐ If the information provided above is found to be incorrect, whether knowingly or unknowingly, DTMR may at their own volition remove the product from the accepted products register; and

☐ DTMR may at any time request additional information regarding any aspect of the product, sourcing, and manufacturing process.

[Signature] / [Date]

For DTMR Completion Only:

Reviewer Name: ........................................ Date: ........................................

Accepted for use:

☐ Yes, product is accepted for use in Queensland

☐ No, product is not accepted for use in Queensland.

Reviewer Signature: ........................................