Safety Barrier Technical Conditions for Use

ZONEGUARD Steel Safety Barrier - Temporary

<table>
<thead>
<tr>
<th>Issue Date: 17 December 2018</th>
<th>Supplier: Hill &amp; Smith Pty Ltd</th>
</tr>
</thead>
</table>

These conditions take precedence over any instructions in the Product Manual.

This document is a summary of the Austroads Safety Barrier Assessment Panel's assessment of the technical performance of the product against AS/NZS 3845 Parts 1 or 2 only. It does not consider procurement practices by individual Road Agencies.

The Austroads Safety Assessment Panel may at any time, withdraw or modify this Technical Conditions for Use without notice.

These acceptance conditions should be read in conjunction with the Product Manual and Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers.

Acceptance of this product does not place any obligation on the Northern Territory Government or its contractors, to purchase or use the product.

Status

Accepted – may be used on the classified road network

Product accepted

ZONEGUARD Steel Safety Barrier – Temporary

Variants

Rubber Pad Option

Variants that are NOT listed above are NOT recommended for acceptance.

Product manual reviewed

Revision 7, dated May 2014

Product manual


Design Requirements

<table>
<thead>
<tr>
<th>Containment level</th>
<th>Accepted speed (km/h)</th>
<th>Vehicle mass (kg)</th>
<th>Point of redirection</th>
<th>Minimum length of barrier (m)</th>
<th>Anchor/post spacing (m)</th>
<th>Dynamic deflection (m)</th>
<th>Working width (m)</th>
<th>Notes/Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MASH TL3</td>
<td>100km/h</td>
<td>2270</td>
<td>Entirely redirective</td>
<td>75</td>
<td>65</td>
<td>1.9</td>
<td>2.6</td>
<td>Speed restricted to 70km/h when connected to ASBSORB 350 Plastic Water Filled Terminal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Deflection is measured from the outer edge of the foot</td>
</tr>
</tbody>
</table>

Approved Connections

**Crash Cushions or Terminals must be fitted to both ends of a barrier**

**Public Domain Products**

- W-Beam guardrail: Not permitted
- Thrie-Beam guardrail: Not permitted
- Temporary concrete type F: Not permitted

For more information visit: www.dipl.nt.gov.au
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Proprietary Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIVERSAL TAU-II Steel Rail Crash Cushion</td>
<td>See UNIVERSAL TAU-II Steel Rail Crash Cushion acceptance document for conditions of use. The TAU-II Transition to ZONEGUARD BARRIER must be used to connect the terminal to the barrier. Permitted as a terminal on a flare.</td>
</tr>
<tr>
<td>QUADGUARD CZ</td>
<td>See QUADGUARD CZ acceptance document for conditions of use. The QUAD TO ZONEGUARD 10 TO 1 TRANSITION must be used to connect the terminal to the barrier. Permitted as a terminal on a flare.</td>
</tr>
<tr>
<td>ABSORB 350 PLASTIC TERMINAL - TEMPORARY</td>
<td>The installation is restricted to a Speed Limit of 70 km/h or less. See ABSORB 350 Plastic Terminal acceptance document for conditions of use. The AB350 TRANSITION TO ZONEGUARD BARRIER must be used to connect the terminal to the barrier. Not permitted as a terminal on a flare.</td>
</tr>
</tbody>
</table>

Design Guidance

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>System width (m)</td>
<td>0.7 metres</td>
</tr>
<tr>
<td>Installation</td>
<td>This product must be installed and maintained in accordance with the Product Manual and Road Agency specifications. Road Agency specifications and standards shall have precedence.</td>
</tr>
<tr>
<td>Minimum distance to excavation</td>
<td>1.9 metres</td>
</tr>
<tr>
<td>Slope limit</td>
<td>Side slope limit: 15 Horizontal to 1 Vertical (7%).</td>
</tr>
<tr>
<td>Systems conditions</td>
<td>1. Flaring across the clear zone without a terminal listed below is NOT permitted. 2. Installation on top of a kerb is not recommended, however if installed on top of a kerb, all system components must be free to operate.</td>
</tr>
<tr>
<td>Gore area use</td>
<td>Permitted – consider speed and deflection limitations Refer to appropriate approved terminal conditions.</td>
</tr>
<tr>
<td>Pedestrian area use</td>
<td>Permitted – consider potential for snagging and deflection.</td>
</tr>
<tr>
<td>Cycleway use</td>
<td>Permitted – consider potential for snagging and deflection.</td>
</tr>
<tr>
<td>Frequent impact likely</td>
<td>Permitted</td>
</tr>
<tr>
<td>Remote location</td>
<td>Permitted</td>
</tr>
<tr>
<td>Median use</td>
<td>Permitted – consider speed and deflection limitations</td>
</tr>
</tbody>
</table>

Submitted Foundation Pavement Conditions

<table>
<thead>
<tr>
<th>Pavement</th>
<th>Use</th>
<th>Accepted Speed (km/h)</th>
<th>Post/pin Spacing (m)</th>
<th>Pavement construction</th>
<th>Post/pin type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>Permitted</td>
<td>100</td>
<td>65</td>
<td>Not specified</td>
<td>32mm dia pilot hole 30mm dia x 300mm depth threaded rod Epoxy or similar to be used</td>
</tr>
<tr>
<td>Deep lift asphaltic concrete</td>
<td>Permitted</td>
<td>100</td>
<td>65</td>
<td>Not specified</td>
<td>30mm dia pilot hole 30mm dia x 500mm depth smooth asphalt pin</td>
</tr>
<tr>
<td>Asphallic concrete over granular pavement</td>
<td>Permitted</td>
<td>100</td>
<td>65</td>
<td>Not specified</td>
<td>30mm dia pilot hole 30mm dia x 500mm depth smooth asphalt pin</td>
</tr>
<tr>
<td>Flush seal over granular pavement</td>
<td>Permitted</td>
<td>100</td>
<td>65</td>
<td>Min 150mm depth</td>
<td>30mm dia pilot hole 30mm dia x 500mm depth smooth asphalt pin</td>
</tr>
<tr>
<td>Unsealed compacted formation</td>
<td>Not Permitted</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Natural surface</td>
<td>Not Permitted</td>
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</tbody>
</table>