


# Safety Barrier Technical Conditions for Use

## ROBOS Safety Barrier System - Permanent

	<b>Issue Date:</b> 13 September 2023	<b>Proponent:</b> ROBOS International Limited
	<p><b>These conditions take precedence over any instructions in the Product Manual.</b></p> <p>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.</p> <p>The Austroads Safety Assessment Panel may at any time, withdraw or modify this Technical Conditions for Use without notice.</p> <p>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.</p> <p>Acceptance of this product does not place any obligation on the Northern Territory Government or its contractors, to purchase or use the product.</p>	

Status	<b>Accepted – may be used on the classified road network, subject to approval.</b>
Product accepted	<p>ROBOS Safety Barrier System</p> <p><u>Variants</u> Driven Single Piece Post – requires appropriate plant for installation and maintenance.</p> <p>Variants that are NOT listed above are NOT recommended for acceptance.</p>
Accepted Speed	100 km/h
Product Manual reviewed	6 September 2023
Product Manual	<a href="https://www.robos.co.nz/#product">https://www.robos.co.nz/#product</a>

### Design Requirements

Containment Level	Point of Redirection		Tested Article Length (m)	Anchor/Post Spacing (m)	Dynamic Deflection (m)	Working Width (m)	Notes
	Leading (m)	Trailing (m)					
MASH TL3	Interface between barrier and the end treatment		190	3.0	2.16	2.25	Approximately 45 metres of steel strapping removed following impact
MASH TL4	53.8	93	190	3.0	2.88	3.09	Approximately 100 metres of steel strapping removed following impact

### Approved Connections

<b><i>An accepted end treatment must be provided at both ends of all barrier installations</i></b>	
<b>Public Domain Products</b>	
W-Beam Guardrail	Not Permitted
Thrie-Beam Guardrail	Not Permitted
Concrete	Not Permitted

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Proprietary Products	
ROBOS Terminal	<ul style="list-style-type: none"> <li>Non-release terminal.</li> <li>Terminal has 4 straps</li> <li>This is a gating terminal. Gating terminals shall have a run-out area behind the terminal that is traversable and free of hazards. The run-out area is to be 18.5 m x 6 m from the point of redirection.</li> </ul>

### Design Guidance

Minimum installation length	168 metres between anchorages (tested article)
System width (m)	0.12
Minimum distance to excavation	2.16 (TL3) – measured from the face of the barrier 2.88 (TL4) – measured from the face of the barrier
Slope limit	10%
Systems conditions	<ol style="list-style-type: none"> <li>1. Installation and maintenance requires specialised automated equipment. Automated installation requires approval from the road authority.</li> <li>2. Minimum horizontal radius 250 metres</li> <li>3. Minimum sag radius 2500 metres (K value = 25)</li> <li>4. 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.</li> </ol>
Gore area use	Permitted
Pedestrian area use	Permitted
Cycleway use	Permitted
Frequent impact likely	Permitted – system may have significant damage and require substantial repair time if specialised automated equipment is unavailable.
Remote location	Permitted
Median use	Permitted

Foundation Pavement Conditions					
Pavement Type	Use	Max Accepted Impact Speed (km/h)	Post/Pin Spacing (m)	Post/Pin Type	Pavement Construction
Concrete	Permitted	100	3.0	Ground screw with steel post  Or  Driven Single Piece Post	Minimum AASHTO standard soil strength
Deep lift asphaltic concrete					
Asphaltic concrete over granular pavement					
Flush seal over granular pavement					
Unsealed compacted formation					

**Note:** Installation in pavement conditions not permitted above have not been justified to the Panel's satisfaction.