


# Safety Barrier Technical Conditions for Use

## EZY-GUARD 4 Steel Rail Safety Barrier - Permanent

	<b>Issue Date:</b> 2 December 2019	<b>Supplier:</b> Ingal Civil Products
	<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</b>
Product accepted	EZY-GUARD 4 Steel Rail Safety Barrier - Permanent.  Variants: Standard installation Back to back installation Base plate installation – may only be installed on concrete foundation pavements Ezy-Lift – only to be installed where the road surface has been overlaid  Variants that are NOT listed above are NOT recommended for acceptance.
Accepted speed	100 km/h
Product manual reviewed	Release 08/17
Product manual	<a href="https://www.ingalcivil.com.au/products/road-safety-barriers/guardrail/ezy-guard-4-guardrail#ProductManual">https://www.ingalcivil.com.au/products/road-safety-barriers/guardrail/ezy-guard-4-guardrail#ProductManual</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 terminal		90.8	2.0	1.65	1.65	

### Approved Connections

<b>Crash Cushions or Terminals must be fitted to both ends of a barrier</b>	
<b>Public Domain Products</b>	
W-Beam Guardrail	Permitted
Thrie-Beam Guardrail	Permitted
Concrete	Not Permitted

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Proprietary Products	
QUADGUARD M10 Crash Cushion	<ul style="list-style-type: none"> <li>Refer QUADGUARD M10 Crash Cushion Technical Conditions for Use.</li> <li>The QUAD-BEAM transition to end terminal must be used to connect the terminal to the barrier.</li> <li>May only be installed where reverse impacts are highly improbable and a risk assessment has been completed and steps undertaken to mitigate any risks identified.</li> </ul>
ET-SS Terminal	<ul style="list-style-type: none"> <li>Refer to ET-SS Terminal Technical Conditions for Use</li> </ul>

### Design Guidance

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	
Minimum installation length	60 metres between crash cushions/terminals (tested article)
System width (m)	0.20 metres (standard) 0.31 metres (back to back)
Minimum distance to excavation	Recorded dynamic deflection
Slope limit	Side slope limit: 10 Horizontal to 1 Vertical (10%)
Systems conditions	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. Flaring across the clear zone without a terminal listed above is NOT permitted.
Gore area use	Permitted
Pedestrian area use	Permitted – consider potential for snagging and deflection
Cycleway use	Permitted – consider potential for snagging and deflection
Frequent impact likely	Permitted
Remote location	Permitted
Median use	Permitted

Foundation Pavement Conditions					
Pavement	Use	Accepted Speed (max)	Post/Pin Spacing (m)	Post/Pin Type	Pavement Construction
Concrete	Permitted	100 km/h	2.0	Ezy-Guard 4 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 listed above have not been justified to the Panel's satisfaction.**