


# Safety Barrier Technical Conditions for Use

## RAMSHIELD Steel Safety Barrier - Permanent

	<b>Issue Date:</b> 15 September 2022	<b>Proponent:</b> Safe Direction
	<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. The Austroads Safety Barrier Assessment Panel may at any time, withdraw or modify this document without notice.</p> <p>These Technical Conditions for Use do not imply that this product may be used on roads under the care and control of individual Road Agencies. Users should refer to individual Road Agency websites to determine whether this product is accepted for use within that jurisdiction, and if the Road Agency has adopted any additional or specific requirements.</p> <p><b>These conditions do not take precedence over Road Agency specifications and standards.</b></p> <p><b>These conditions do take precedence over instructions in the Product Manual.</b></p>	

Status	Recommended for Acceptance
Product accepted	<p>RAMSHIELD Steel Safety Barrier</p> <p><u>Variants</u></p> <p>Single 6 metre clear span – no closer than the system dynamic deflection from hinge point</p> <p>Base plate installation – may only be installed on concrete foundation pavements</p> <p>1 metre post spacing (810mm post embedment) – should be limited to constrained locations</p> <p>Variants that are NOT listed above are NOT recommended for acceptance.</p>
Accepted impact speed	100 km/h
Product manual reviewed	PM 020/04

## 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 end treatment		96.5	2.0	1.56	1.63	

## Approved Connections

An accepted end treatment must be provided at both ends of all barrier installations	
Public Domain Products	
W-Beam Guardrail	Permitted
Thrie-Beam Guardrail	Permitted
Concrete	<p>Permitted using SBTA 21-005 Transition from strong post w-beam to rigid concrete barrier</p> <p>Permitted using Ramshield Transition</p>
Proprietary Products	
MSKT Steel Rail Terminal - Permanent	<ul style="list-style-type: none"> <li>Refer to MSKT Steel Rail Terminal Technical Conditions for Use.</li> </ul>
Bikershield Motorcyclist Protection Device	<ul style="list-style-type: none"> <li>Motorcyclist Protection Device</li> <li>Tested to EN1317.8 – Class C60 with Severity Level 2</li> <li>Not permitted on kerbed roads</li> </ul>

## Design Guidance

Minimum installation length	66 metres between crash cushions/terminals (tested article)
System width (m)	0.18
Minimum distance to excavation (m)	1.56 – measured from the face of the barrier
Side slope limit	10%
System conditions	<ol style="list-style-type: none"> <li>Only to be installed with system designed driving head.</li> <li>Installation on top of a kerb is not recommended, however if installed on top of a kerb, a semi-mountable or flatter kerb is recommended with system height to be measured from top of kerb. All components are to be free to operate.</li> </ol>
Gore area use	Not permitted
Pedestrian area use	Permitted
Cycleway use	Permitted
Frequent impact likely	Permitted
Remote location	Permitted
Median use	Permitted – not suitable for impact on the post side

Foundation Pavement Conditions					
Pavement Type	Use	Max Accepted Impact Speed (km/h)	Post/Pin Spacing (m)	Post/Pin Type	Pavement Construction
Concrete	Permitted	100	2.0	Ramshield base plate post	Refer to drawings (RAM009 Rev.0)
Deep lift asphaltic concrete	Permitted	100	2.0	Ramshield driven post	Minimum AASHTO standard soil strength
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.