


Safety Barrier Technical Conditions for Use

Ramshield Safety Barrier - Permanent

	Issue Date: 7 March 2024	Proponent: Safe Direction
	Status: Recommended for acceptance	Accepted Impact Speed: 100 km/h

This document is a summary of the Austrroads 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 Austrroads Safety Barrier Assessment Panel may at any time, withdraw or modify this document without notice.

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.

These conditions do not take precedence over Road Agency specifications and standards.

These conditions take precedence over instructions in the Product Manual, refer Austrroads Technical Advice SBTA 22-001. Product manual current at time of TCU: PM 020/04

Design Requirements

Containment Level	MASH TL3
Accepted Impact Speed	100 km/h
Point of Redirection – Leading (m)	Interface between the barrier and the end treatment
Point of Redirection – Trailing (m)	Interface between the barrier and the end treatment (20 from the interface between the barrier and a non-redirective trailing terminal)
Tested Article Length (m)	96.5
Anchor/Post Spacing (m)	2.0
Dynamic Deflection (m)	1.56
Working Width (m)	1.63
System Width (m)	0.18
Minimum Support Width (m) <small>measured from the face of the barrier</small>	1.56
Minimum Installation Length (m)	Refer Austrroads Technical Advice SBTA 21-002
System Conditions	<ul style="list-style-type: none"> Only to be used with system designed driving head. 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 measured from top of kerb. All components must be free to operate.

Approved Variants

VARIANT	FUNCTIONAL PURPOSE	CONDITIONS
Single 6 metre clear span	Avoid underground utilities or assets	<ul style="list-style-type: none"> Barrier offset no closer than the system dynamic deflection from hinge point.
Baseplate Installation	Allow attachment to ground beam to avoid underground utilities or assets	<ul style="list-style-type: none"> Requires engineered concrete footing. Minimum ground beam length of 12 metres. Should be limited to constrained locations where a driven post cannot be installed. Permitted in all pavement types – refer drawings.
1 metre post spacing	Reduce the working width over relatively short lengths	<ul style="list-style-type: none"> 810mm embedment Should be limited to constrained locations. Reducing the post spacing may affect the performance of the barrier and must be limited to relatively short lengths.

Variants that are not listed above are NOT recommended for acceptance. Alterations to or combinations of the variants listed above are not recommended unless noted.

Approved Connections

<i>An accepted end treatment must be provided at both ends of all barrier installations</i>	
End Treatments	
MSKT Terminal	<ul style="list-style-type: none"> Refer MSKT Technical Conditions for Use.
Max-Tension Terminal	<ul style="list-style-type: none"> Refer Max-Tension Terminal Technical Conditions for Use.
Transitions	
Public Domain W-Beam Guardrail	<ul style="list-style-type: none"> Permitted
Public Domain Thrie-Beam Guardrail	<ul style="list-style-type: none"> Permitted
Public Domain Permanent Concrete	<ul style="list-style-type: none"> Permitted using Austroads Transition (refer Austroads Technical Advice SBTA 21-005). Permitted using Ramshield Transition.
Attachments	
Bikershield Motorcyclist Protection Device	<ul style="list-style-type: none"> Motorcyclists Protection Device Tested to EN1317.8 – Class C60 with Severity Level 2. Not permitted on kerbed roads.
<i>Connections that are not listed above are NOT recommended for acceptance.</i>	

Foundation Pavement Conditions

Pavement Type	Post/Pin Spacing (m)	Post/Pin Type	Pavement Construction
Concrete	2.0	Baseplate post	Refer drawing
Deep lift asphaltic concrete	2.0	Driven post	Min AASHTO standard soil strength
Asphaltic concrete over granular	2.0	Driven post	Min AASHTO standard soil strength
Flush seal over granular	2.0	Driven post	Min AASHTO standard soil strength
Unsealed compacted formation	2.0	Driven post	Min AASHTO standard soil strength
<i>Installation in pavement conditions not permitted above have not been justified to the Panel's satisfaction.</i>			