Safety Barrier Technical Conditions for Use

SafeZone MDS Safety Barrier – Permanent & Temporary

	**Issue Date:** 26 November 2024	**Proponent:** Jaybro Group
	Status: Recommended for acceptance	**Accepted Impact Speed:** 100 km/h

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.

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 Austroads Technical Advice SBTA 22-001.
Product manual current at time of TCU: V1.5

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)	
Tested Article Length (m)	40.6
Anchor/Post Spacing (m)	5.8
Dynamic Deflection (m)	0.17
Working Width (m)	0.81
System Width (m)	0.64
Unit Length (m)	5.80
Minimum Support Width (m)	Requires site specific analysis. Refer Austroads Technical Advice SBTA 22-001.
Minimum Installation Length (m) *between crash cushions/terminals - tested article*	40.6
System 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. • All offsets are to be measured from the relevant outer edge of the foot. The foot is not trafficable. • This product is designed for constrained sites ONLY that cannot accommodate the working widths of more flexible systems. While providing lower working width, this product increases the potential for vehicle occupant risk during high-speed impacts. • Throughout the installation it is recommended to revert to greater pin spacing (LDS, Standard) where there is the accepted working width behind the installation. • A risk assessment of using this product must be undertaken. Where the risk of high-speed impacts is high, the speed must be limited to not greater than 80 km/h.

Approved Variants

Variant	Functional Purpose	Conditions
Nil		

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

An accepted end treatment must be provided at both ends of all barrier installations	
End Treatments – Permanent & Temporary Installations	
Tau-XR Crash Cushion	• **Permitted for use in unidirectional applications only. Not permitted as a departure terminal.** • Refer to Tau-XR Crash Cushion Technical Conditions for Use.
Universal Tau-M Crash Cushion	• Refer Universal Tau-M Crash Cushion Technical Conditions for Use. • The SafeZone LDS to Universal Tau-M Crash Cushion transition must be used to connect the crash cushion to the barrier. • Reverse impacts into the transition section can product a greater occupant severity value than preferred. Where reverse impacts are possible (e.g., bidirectional traffic), a risk assessment must be completed and steps to mitigate the likelihood of reverse impact should be implemented.
End Treatments – Temporary Installations Only	
Absorb-M Crash Cushion	• **The installation is restricted to an impact speed of 80 km/h or less.** • Refer Absorb-M Crash Cushion Technical Conditions for Use. • The SafeZone MDS to Absorb-M Crash Cushion transition must be used to connect the crash cushion to the barrier. • This is a gating device.
Connections that are not listed above are NOT recommended for acceptance.	

Foundation Pavement Conditions

Permanent & Temporary Installations			
Pavement Type	**Post/Pin Spacing (m)**	**Post/Pin Type**	**Pavement Construction**
Concrete	5.8	M30 x 300mm threaded rod with epoxy	Min 200mm reinforced or 250mm non-reinforced
Deep lift asphaltic concrete	5.8	M30 x 300mm threaded rod with epoxy	Min 250mm
Asphaltic concrete over granular	5.8	M30 x 300mm threaded rod with epoxy	Min 150mm AC over 150mm granular pavement
Flush seal over granular	Not permitted		
Unsealed compacted formation	Not permitted		
Installation in pavement conditions not permitted above have not been justified to the Panel's satisfaction.			