


Safety Barrier Technical Conditions for Use

SENTRY W BEAM Safety Barrier - Permanent

	Issue Date: 20 March 2023	Proponent: Australian Construction Products
	<p>These conditions take precedence over any instructions in the Product Manual.</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	Accepted – may be used on the classified road network
Product accepted	SENTRY W BEAM Safety Barrier <u>Variants</u> Back to back installations Baseplate Installation – may only be installed on concrete foundation pavements 1 metre post spacing (850mm post embedment) – should be limited to constrained locations Variants that are NOT listed above are NOT recommended for acceptance.
Accepted speed	100 km/h
Product manual reviewed	V1.8 – July 2020 – Sentry W Beam IM 030 Rev 01 – dated 25 July 2019 – RiderPro IM 035 Rev 01 – 31.01.22 – RiderPro MP
Product manual	https://www.safedirection.com.au/wp-content/uploads/2023/04/Installation-Manual-Sentry-W-Beam-Guardrail.pdf

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	2.0	1.59	1.59	

Approved Connections

<i>An accepted end treatment must be provided at both ends of all barrier installations</i>	
Public Domain Products	
W-Beam Guardrail	Permitted
Thrie-Beam Guardrail	Not Permitted
Concrete	Permitted using SBTA 21-005 Transition from strong post W-Beam to rigid concrete barrier

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Proprietary Products	
MAX-TENSION Guardrail Terminal	<ul style="list-style-type: none"> Refer MAX-TENSION Guardrail Terminal Technical Conditions for Use.
RiderPro	<ul style="list-style-type: none"> Motorcyclist Protection Device Tested to EN1317.8 – Class C60 with Severity Level 1. Not permitted on kerbed roads
RiderPro MP	<ul style="list-style-type: none"> Motorcyclist Protection Device Tested to CEN/TS 17342– Class C60 with Severity Level 1. Not permitted on kerbed roads

Design Guidance

Minimum installation length	78 metres between crash cushions/terminals (tested article)
System width (m)	0.20 (standard) 0.30 (back to back)
Minimum distance to excavation (m)	1.59 measured from the face of the barrier
Slope limit	17 %
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.
Gore area use	Permitted
Pedestrian area use	Permitted
Cycleway use	Permitted
Frequent impact likely	Permitted
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	2.0	ACP Sentry Barrier base plate post or ACP Sentry Barrier driven post with coring holes	Refer to drawings
Deep lift asphaltic concrete	Permitted	100	2.0	ACP Sentry Barrier 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.