

DETAIL SHEET

SENTRYLINE II 4 WIRE ROPE BARRIER SYSTEM

VicRoads Requirements

Refer to Austroads - Safety Barrier System Acceptance Conditions for the Sentryline II 4 Wire Rope Barrier System. All requirements listed by Austroads have been adopted by VicRoads for use on the Victorian declared road network.

In this instance, VicRoads applies additional requirements/conditions for use of Sentryline II 4 Wire Rope Barrier System on the Victorian declared road network including:

- Installation of Sentryline II 4 Wire Rope Barrier System must conform with requirements of VicRoads documents as listed in references below.
- Terminal anchor dimensions
 - Where no geotechnical investigation is undertaken to determine an approved alternative anchor, the manufacturer's nominated default anchor shall be used; dimensions 1000Wx2500Lx1500D (mm).
- Machine swaged rope fittings are mandatory in Victoria.

Please Note: VicRoads requirements take precedence over any Product Manual instructions and Austroads conditions where conflicting.

References

- Product Installation Manual and Product Operational Manual [refer licensed product supplier website](#)
- VicRoads Road Design Note 06-04 Accepted Safety Barrier Products
- VicRoads Road Design Note 06-02 The Use of Wire Rope Safety Barriers (WRSB)



- VicRoads Standard Drawing SD3573 for guidance on the verge and permissible slopes
- VicRoads Standard Drawing SD2001 for kerb types
- VicRoads Standard Section 711 – Wire Rope Safety Barrier
- VicRoads Supplement to Austroads Guide to Road Design – Part 6



For further information please contact:

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Accepted safety barrier products are subject to periodic review and the information provided in this document may be superseded. Please refer to Road Design Note 06-04 – Accepted Safety Barrier products for the current VicRoads acceptance status.

Safety Barrier System Conditions

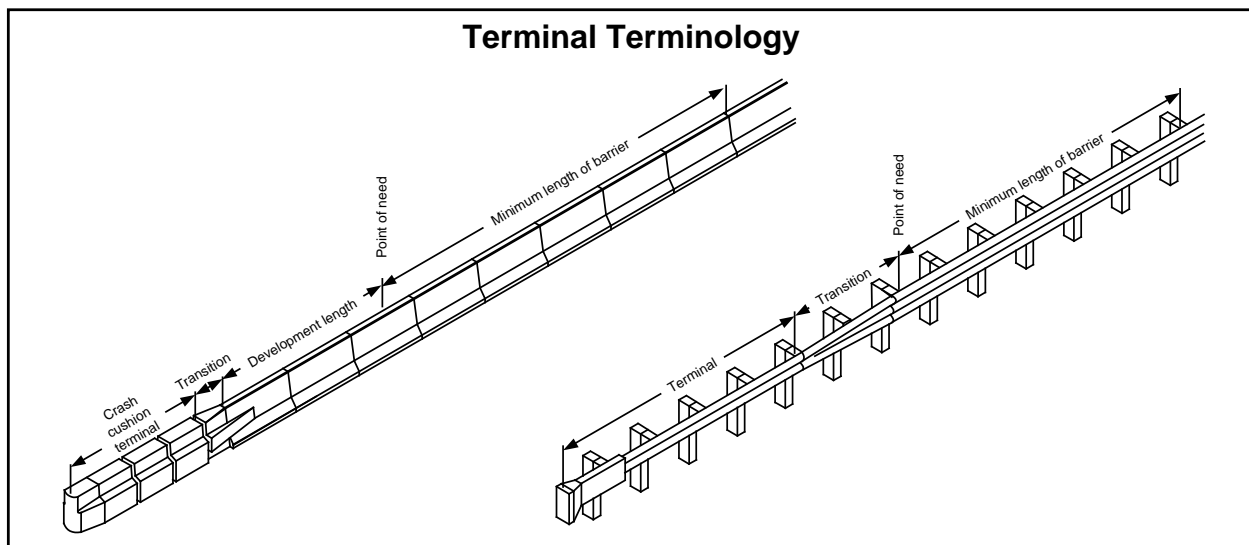
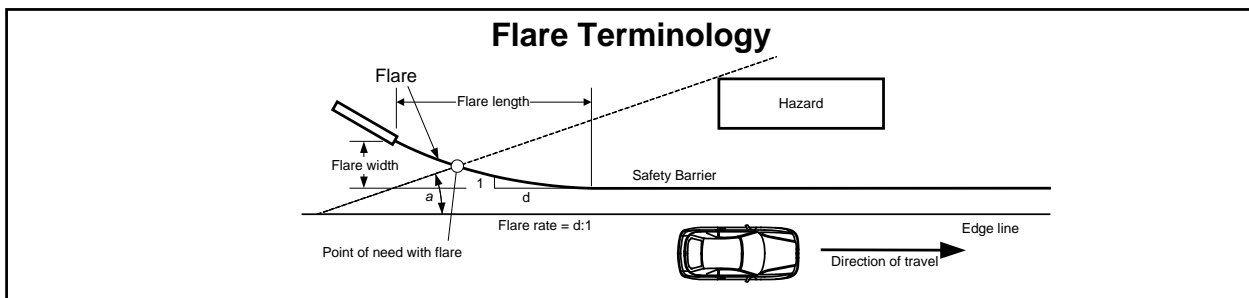
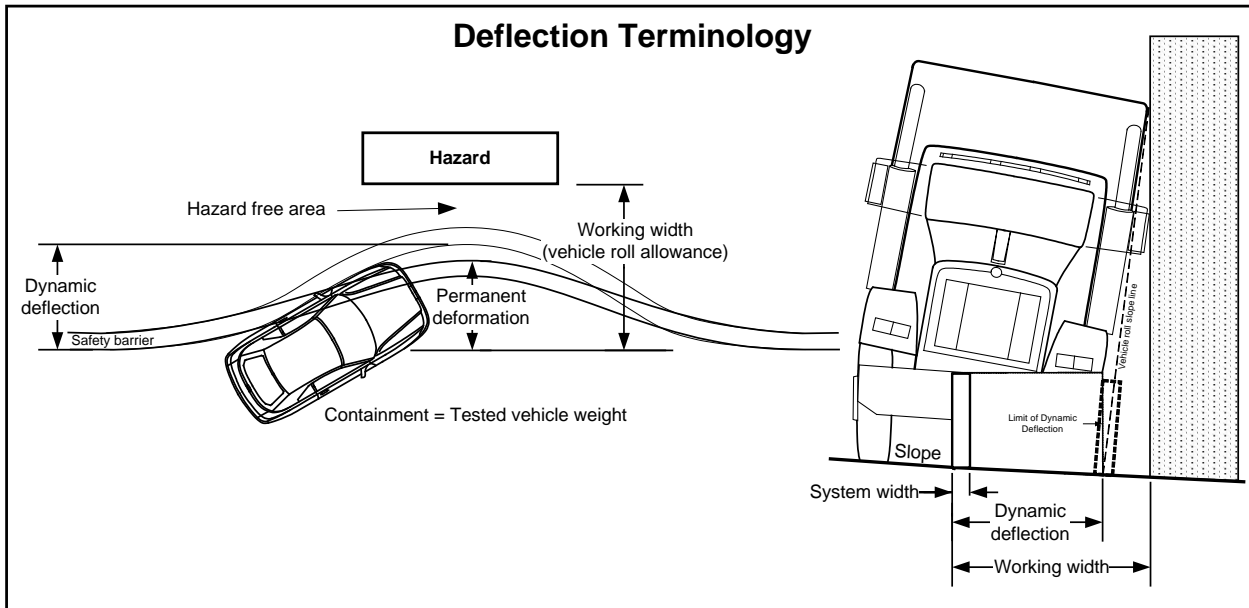
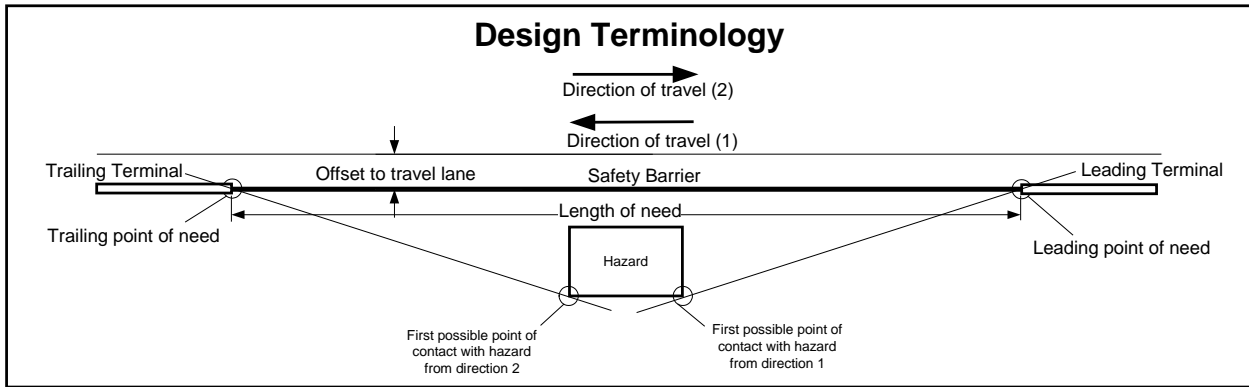
SENTRYLINE II 4 Wire Rope Barrier System - Permanent

 	Australian Distributor	Australian Construction Products Pty Ltd
	New Zealand Distributor	CSP Pacific (Armorwire)
	Date Issued	2 May 2016

Status	Accepted – May be used on the classified road network. These acceptance conditions take precedence over any instructions in the Product Manual.	
Product accepted	<ul style="list-style-type: none"> SENTRYLINE II 4 Wire Rope Barrier System - Permanent consisting of 4 wire ropes supported in notches in flat sided, hollow, oval section posts with one rope either side of the post and 2 ropes in the central slot. Posts set into a plastic sleeve in a concrete footing. Rope tension is 25 kN. Colour of posts to be determined by local Road Agency. <p><u>Variants</u></p> <ul style="list-style-type: none"> Nil. 	
Product Manual reviewed	Dated December 2013 (barrier) August 2015 (terminal).	
Variants NOT accepted	<ul style="list-style-type: none"> End fittings using mechanical swaging. Wire rope cables held to a trigger strut that is NOT bolted to the ground strut. Variants that are not on the list above are not accepted. Variants accepted in other jurisdictions, but not accepted in the local jurisdiction, are NOT permitted. 	
Speed limit (km/h)	Tested at 100 km/h. May be used in 110 km/h speed zones (permanent installation only).	
Tested containment	NCHRP 350 Test Level 4 (8,000 kg at 80 km/h and 15°).	
Tested dynamic deflection	100 km/h	1.6 metres.
	Note that deflections are measured in crash tests performed under controlled conditions. Designers should be aware that the deflection figures published as a test result may not be the deflection values achieved in the field for all impacts by errant vehicles dependent upon foundation conditions and roadside geometry.	
Point of need	At leading end – 8 metres downstream from the end of terminal.	
Development length	Not applicable.	
Minimum length of barrier between terminals	114 metres.	
System width (m)	<ul style="list-style-type: none"> 0.3 metres at post 0.4 metres at terminal 	
System conditions	<ol style="list-style-type: none"> Anchor spacing greater than 1,000 metres is NOT permitted. 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. 	
Terminals and connections	W-Beam guardrail	Not permitted.

	Thrie-Beam guardrail	Not permitted.
	Type F Concrete Safety Barrier	Not permitted.
	Proprietary product	1. SENTRYLINE TERMINAL END III WIRE ROPE TERMINAL SYSTEM - PERMANENT <ul style="list-style-type: none"> Permitted for use with SENTRYLINE II 4 Wire Rope Barrier System - Permanent. Permitted as a terminal on a flare. This is a gating terminal.
	Other	A terminal must be fitted to both ends of the barrier.
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	Not permitted.	
Remote location	Not permitted.	
Median use	Permitted.	
Flare (See Explanation of Terms diagram)	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers Table 6.5 for design advice.	
Offset to travel lane (m)	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers, Section 6.3.5.	
Hazard free area beside barrier or terminal (Working Width)	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers, Section 6.3.16.	
Installation	The SENTRYLINE II 4 Wire Rope Barrier System - Permanent must be installed and maintained in accordance with the Product Manual and Road Agency specifications. The Road Agency specifications and standards shall have precedence.	
Minimum distance to excavation	1.6 metres minimum distance between the edge of the barrier and the edge of an excavation. (Being the largest adopted dynamic deflection).	
Slope limit	Side slope limit: 10 Horizontal to 1 Vertical (10%).	
Foundation pavement conditions	Concrete	Permitted with coring holes.
	Deep lift Asphaltic Concrete	Permitted with coring holes.
	Asphaltic concrete over granular pavement	Permitted.
	Flush seal over granular pavement	Permitted.
	Unsealed compacted formation	Permitted.
	Natural surface	Permitted.
	Foundation pavement conditions must be smooth and free of snag points, kerbs or obstructions that may interfere with the operation of the product.	
Attachments and screens	In accordance with the requirements of Australian/New Zealand Standard AS/NZS 3845, road furniture such as headlight screens, signs, lighting posts and fences for pedestrians, visual screens, debris screens, platforms for workers and other non-product hardware must not be attached to the product.	

	<p>Screens may be placed adjacent to the side of the product not exposed to traffic. The distance between the screen and the product shall be determined by a site specific risk assessment that considers the deflection distance.</p> <p>Screens must not have horizontal members that present a risk of impaling errant vehicles that impact the product.</p>
Damaged components	Damaged components must be replaced. Repaired components must not be used.
Delineation	The installed system shall include delineation as prescribed by Road Agency specifications and drawings.
Traceability and markings	<p>Product markings shall be in accordance with marking/s prescribed by the current Australian/New Zealand Standard AS/NZS 3845 Road Safety Barrier Systems and Road Agency specifications. Traceability details that must be permanently fixed to the ["terminal" or "product"] are:</p> <ul style="list-style-type: none"> • Name of the product. • Manufacturer or distributor name. • Date of manufacture. • Model or version details of the product, if applicable. • Batch number, if applicable. • Serial number, if applicable. <p>Traceability details must be easily visible but unobtrusive and not be in a form that becomes prominent advertising. No advertising shall be displayed on the installation.</p> <p>Traceability must be in a form that will not be erased with use.</p>
Notes	<p>Conditions are based on drawings in the Product Manual supplied by the Proponent, dated December 2013 and August 2015. This acceptance will cease if there is any change in the product design or specifications.</p> <p>Only the Product Manual authorised by the Proponent shall be used in any marketing of the product.</p> <p>Acceptance of the SENTRYLINE II 4 Wire Rope Barrier System - Permanent does not place any obligation on the Road Agency, or its contractors, to purchase or use the product.</p> <p>The Austroads Safety Barrier Assessment Panel may periodically re-assess the SENTRYLINE II 4 Wire Rope Barrier System - Permanent. The Road Agency may withdraw or modify at any time, the acceptance status or conditions of use of the product without notice. Users should refer to the Road Agency web site to ensure they have the latest version of the conditions related to this product.</p>



Safety Barrier terminology.vsd

For more information, refer to
 Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers