Safety Barrier System Acceptance Conditions

SMART Steel Crash Cushion

The SMART Steel Crash Cushion is accepted for use on the New South Wales classified road network. The acceptance is based on the determination of the Austroads Safety Barrier Assessment Panel.

The acceptance is subject to the conditions shown in the attached *Safety Barrier System Acceptance Conditions*.

Safety Barrier System Acceptance Conditions

SMART Steel Crash Cushion

Proponent	LB Australia
Proponent email	roadsafety@lbaustralia.com.au
Date Issued	30 June 2014

Status	**Accepted** – May be used on the classified road network.
Variants accepted	• SCI100GM SMART Steel Crash Cushion. • SCI70GM SMART Steel Crash Cushion. • Transitions to single slope and Type F concrete safety barriers.
Variants NOT accepted	• Transitions to W-beam. • 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)	100km/h (SCI100GM). 70 km/h (SCI70GM). Permanent barriers accepted for 100km/h may be used in 110 km/h speed zones.
Tested containment (kg)	2,000 kg at 100 km/h and 0° (SCI100GM). 2,000 kg at 70 km/h and 0° (SCI70GM).
Adopted dynamic deflection (Nominal 2 tonne vehicle)	Not applicable.
Point of need	Not applicable.
Development length	Not applicable.
Minimum length of barrier between terminals	Not Applicable.
System width (m)	0.96 metres (SCI100GM). 0.88 metres (SCI70GM).

System conditions	Not specified.
Terminal conditions	1. 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. 2. Refer to Product Manual for installation advice adjacent to elevated kerbs.
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	Permitted.
Remote location	Permitted.
Median use	Permitted.
Minimum median width (m)	Not specified.

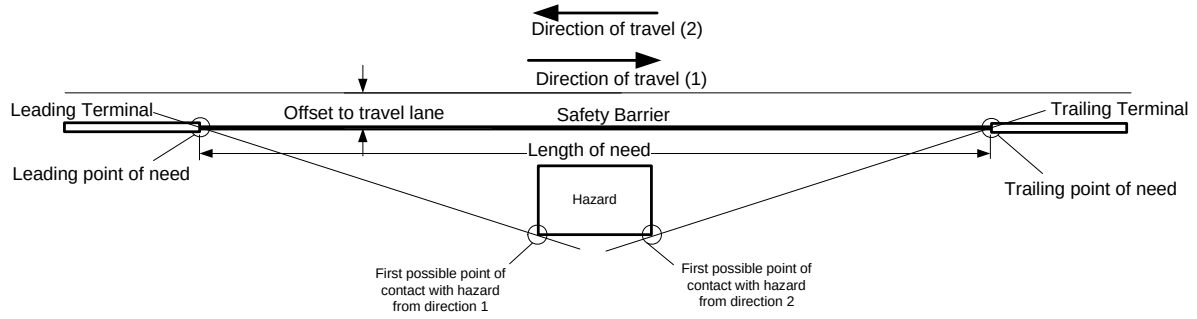
Flare rate **(See Explanation of Terms diagram)**	Not applicable.
Offset to travel lane (m)	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers, Section 6.3.5.
Hazard free area beside barrier or terminal **(Working Width)**	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers, Section 6.3.16.

Installation	The SMART Steel Crash Cushion must be installed and maintained in accordance with the Product Manual and road authority specifications. The road authority specifications and standards shall have precedence.	
Minimum distance to excavation	Minimum distance between the edge of the barrier and the edge of an excavation: • 0.2 metres when anchored on concrete pavement. • 0.6 metres when anchored on flexible pavement. (Being the greater of the largest adopted dynamic deflection or 1.5 times the embedment depth of the anchor).	
Slope limit	Side slope limit: 10 Horizontal to 1 Vertical (10%). Longitudinal slope limit: 10 Horizontal to 1 Vertical (10%).	
Foundation pavement conditions	Concrete	Permitted.
	Deep lift Asphaltic Concrete	Permitted with concrete pad (permanent). Permitted pinned to asphalt (temporary).
	Asphaltic concrete over granular pavement	Permitted with concrete pad (permanent). Permitted pinned to asphalt (temporary).
	Flush seal over granular pavement	Permitted with concrete pad.
	Unsealed compacted formation	Not Permitted.
	Natural surface	Not Permitted.
	Foundation pavement conditions must be smooth and free of snag points, kerbs or obstructions that may interfere with deflection of the barrier.	
Attachments and screens	Visual screens, debris screens, platforms for workers and other non-product hardware must not be attached to the product. 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. Screens must not have horizontal members that present a risk of impaling errant vehicles that impact the product.	
Damaged components	Damaged components must be replaced. Repaired components must not be used.	
Delineation	The installed system shall include delineation as prescribed by road authority specifications and drawings.	
Traceability and markings	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 authority specifications. Traceability details that must be permanently fixed to the product are: • Name of the product. • Model or version details of the product, if applicable. • Manufacturer or distributor name. • Batch number, if applicable. • Serial number, if applicable.	

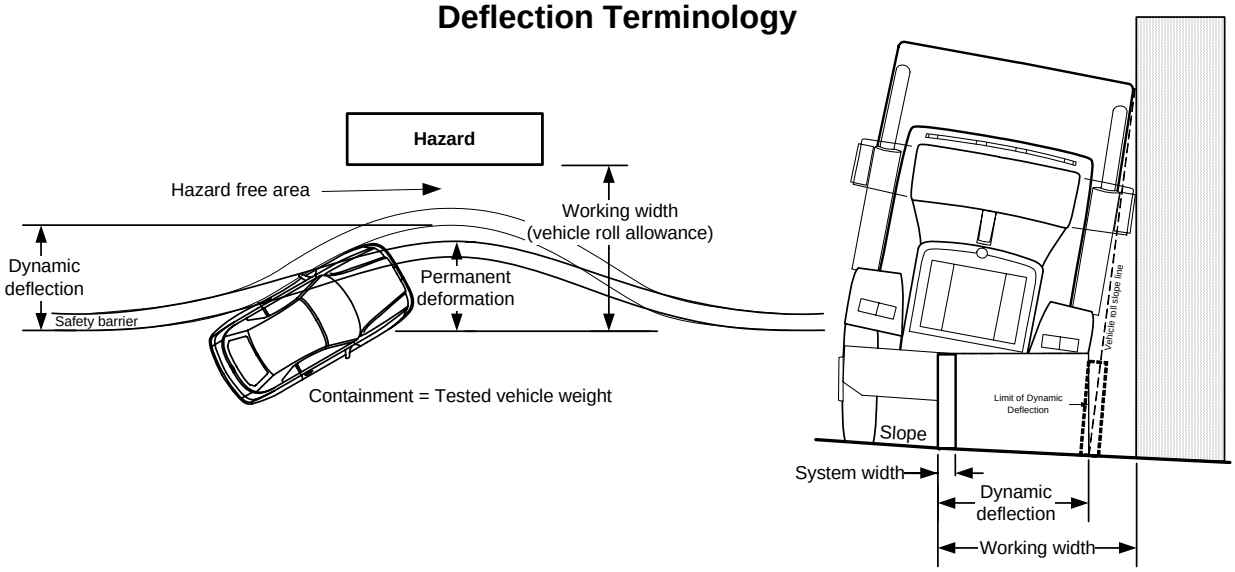
	• Date of manufacture. Traceability details must easily visible but unobtrusive and not be in a form that becomes prominent advertising. No advertising shall be displayed on the installation. Traceability must be in a form that will not be erased with use.

Notes	Acceptance is based on drawings in the Product Manual supplied by the Proponent, dated July 2012. This acceptance will cease if there is any change in the product design or specifications.
	Only the Product Manual prepared by the Proponent shall be used in any marketing of the product.
	Acceptance of the SMART Steel Crash Cushion does not place any obligation on the road authority, or its contractors, to purchase or use the product.
	The Austroads Safety Barrier Assessment Panel may periodically re-assess the SMART Steel Crash Cushion. The road authority 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 authority web site to ensure they have the latest version of the conditions related to this product.

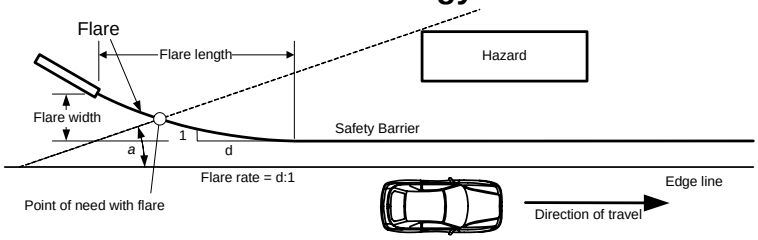
Design Terminology



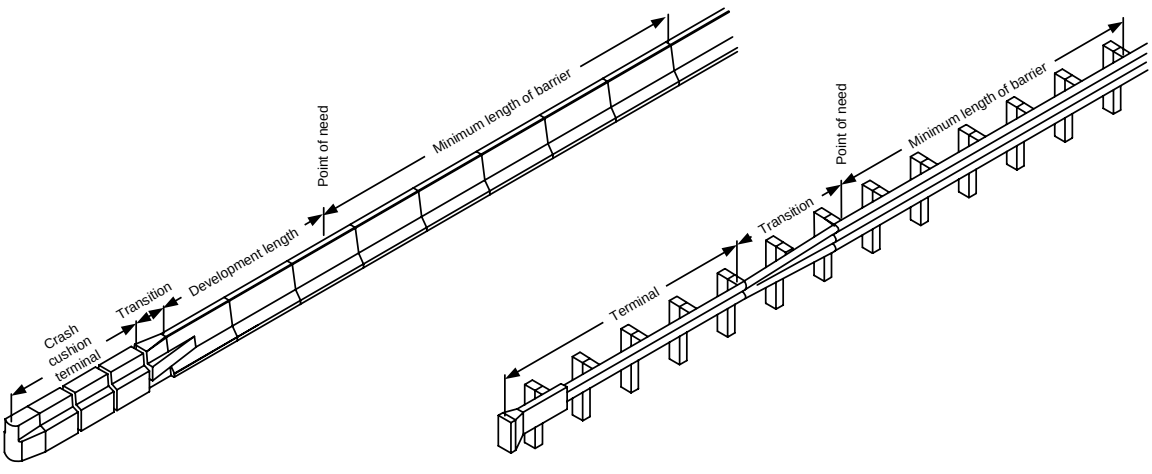
Deflection Terminology



Flare Terminology



Terminal Terminology



Safety Barrier terminology.vsd

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