

# SafeZone Safety Barrier – Temporary

## Product summary

<b>Status</b>	Accepted
<b>Category</b>	Temporary – Steel Longitudinal Barriers
<b>Test Level</b>	Test Level 3 & 4 (MASH): <b>100 km/h</b>
<b>Supplier</b>	Laura Metaal Road Safety
<b>Description</b>	Temporary barrier made up of steel barrier segments joined using the SafeZone unique connectors



## Introduction and purpose

This detail sheet supplements *VicRoads' Road Design Note 06-04 - Accepted Safety Barrier Products*. Please refer to RDN 06-04 for the current VicRoads acceptance status, information on the product assessment process and general acceptance conditions.

The technical details within this document have been extracted from information submitted to VicRoads by the Supplier and the recommended 'Conditions for Use' from the Austroads Safety Barrier Assessment Panel (ASBAP).

***VicRoads requirements take precedence over the product manual and Austroads conditions.*** Where a departure from these requirements is required, users should understand the risks and document their engineering decisions.

For more detailed product information, refer to the individual product manual or contact the System Supplier.

## Technical information

The SafeZone Safety Barrier should be designed, installed and maintained in accordance with the following VicRoads conditions for use.

These conditions for use have been based on an Austroads assessment of technical performance against AS/NZS 3845 and contain VicRoads specific requirements when necessary.

## Summary Conditions for Use

<b>Accepted configuration</b>	SafeZone Safety Barrier – Temporary
<b>Variants</b>	Low Deflection System (LDS)
<b>Deflection</b>	0.61-1.06m – TL-3 0.85-2.17m – TL-4
<b>Product manual reviewed</b>	Version 1.9
<b>ASBAP issue</b>	26 September 2019

Refer *VicRoads conditions for use (below)*.

## VicRoads Conditions for Use

### Tested design requirements

System Type	Containment level	Vehicle mass (kg)	Point of Redirection (m)*		Tested article length (m)	Anchor/Pin Spacing (m)*	Dynamic deflection (m)	Working width (m)	Notes
			Leading	Trailing					
Standard	MASH TL-3	2270	Interface between barrier and end terminal		69.6	69.6	1.70	2.06	
	MASH TL-4	10000	27.4	27.4	69.6	69.6	2.07	2.96	
LDS	MASH TL-3	2270	Interface between barrier and end terminal		40.6	11.6	0.61	1.06	
	MASH TL-4	10000	17.4	17.4	40.6	11.6	0.85	2.17	

### Approved Terminals and Connections

<i>Crash Cushions or Terminals must be fitted to both ends of a barrier</i>	
<b>Public Domain Products</b>	
W-Beam Guardrail	Not permitted
Thrie-Beam Guardrail	Not permitted
Concrete Barrier	Not permitted
<b>Proprietary Products</b>	
UNIVERSAL TAU-II Crash Cushion	<ul style="list-style-type: none"> <li>Refer Universal Tau-II Crash Cushion Technical Conditions for Use.</li> <li>May only be installed where reverse impacts are highly improbable and a risk assessment has been completed and steps undertaken to mitigate any risks identified.</li> <li>Not permitted as a terminal on a flare.</li> </ul>

### Design Guidance

Minimum installation length	Standard - 69.6 metres between crash cushions/terminals (tested article) LDS - 40.6 metres between crash cushions/terminals (tested article)
System width	Standard - 0.454 metres LDS - 0.639 metres (includes additional width for anchors)
Installation	This product must be installed and maintained in accordance with the Product Manual and Road Agency specifications. Road Agency specifications and standards shall have precedence.
Minimum distance to excavation	Recorded dynamic deflection
Slope limit	Side slope limit: 12 Horizontal to 1 Vertical (8%). Side slopes must be considered to minimise manual handling risks and site conditions.
Systems conditions	<ol style="list-style-type: none"> <li>Installations must be pinned at each end. Crash cushions must be installed where the barrier may be impacted from the reverse direction.</li> <li>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.</li> </ol>
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

## Foundation pavement conditions

Submitted Foundation Pavement Conditions					
Pavement	Use	Accepted Speed (max)	Post/pin spacing (m)	Post/pin type	Pavement construction
Concrete	Permitted	100 km/h	69.6 11.6	Threaded Rod (Type B)	Min. 250 mm reinforced or non-reinforced
Deep lift asphaltic concrete	Permitted	100 km/h	69.6 11.6	Threaded Rod (Type B)	Min. 250 mm
Asphaltic concrete over granular pavement	Permitted	100 km/h	69.6 11.6	Threaded Rod (Type B)	Min. 150 mm AC over 100 mm compacted base
Flush seal over granular pavement	Not Permitted				
Unsealed compacted formation					

Note: Installation in pavement conditions not listed above have not been justified to the Panel's satisfaction.

## Other considerations and comments

### Attachment and Screens

Refer to Road Design Note 06-12 'Worksite Safety Barrier Screen'

### Damaged Components

Damaged components must be replaced and repaired components must not be used.

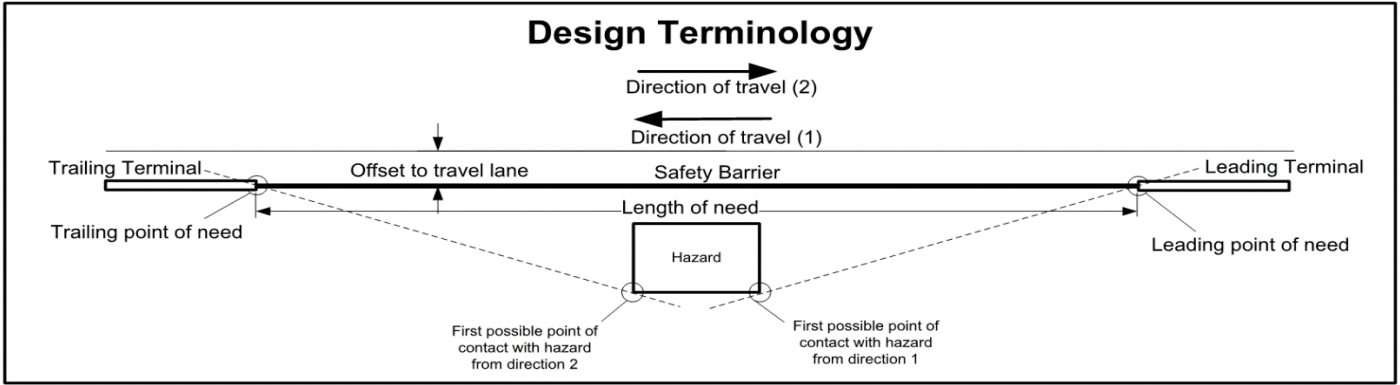
## References

- Austroads Guide to Road Design – Part 6.
- VicRoads Supplement to Austroads Guide to Road Design – Part 6.
- VicRoads Road Design Note 06-04 Accepted Safety Barrier Products.
- Product Installation Manual and Product Operational Manual refer licensed product supplier website.

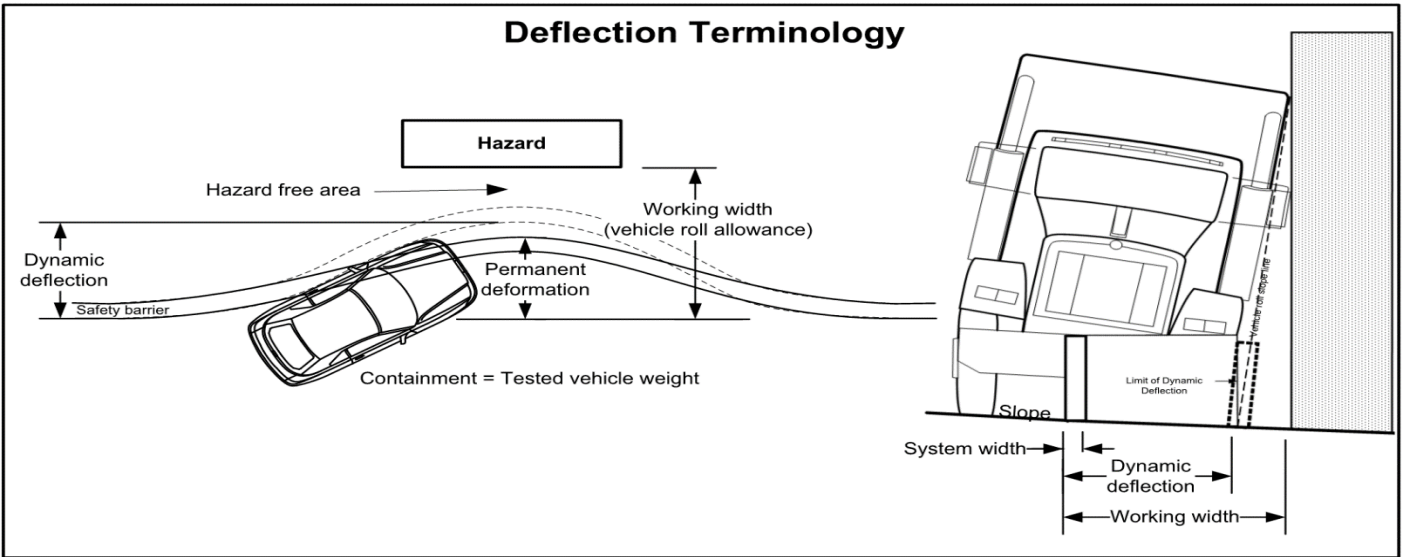
## Detail Sheet – Update Summary

Issue	Approved	Amendment
Oct 2019	M-SSE	First edition

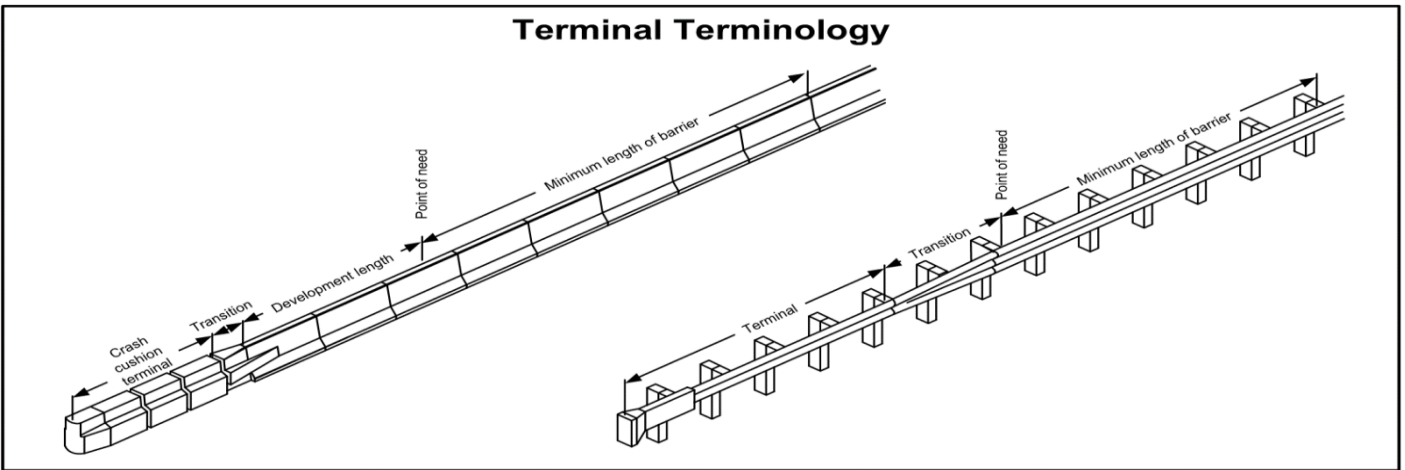
### Design Terminology



### Deflection Terminology



### Terminal Terminology



### Flare Terminology

