

Defender Barrier 70 Steel Safety Barrier – Temporary

Product summary

Status	Accepted
Category	Temporary – Steel longitudinal barrier
Test Level	MASH TL2: 70km/h
Supplier	Safe Barriers Pty Ltd
Description	Defender Barrier 70 is a temporary freestanding steel barrier with concrete ballasts inside each unit.

Refer: Road Design Note 06-04 Accepted Safety Barrier Products

Introduction and purpose

This detail sheet is intended to supplement *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).

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

VicRoads requirements take precedence over any product manual and Austroads conditions where conflicting.

Technical information

The Defender Barrier 70 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

Accepted configuration	3.9 metre DEFENDER Barrier 70 Steel Safety Barrier – Temporary The Defender Barrier 70 requires the addition of three (3) Ballast Boxes which are filled with concrete. Ballast Box washers shall be clearly identifiable for ease of inspection.
Variants	None
Deflection	1.2m (MASH TL-2)
Product manual reviewed	Defender Barrier™ 70 – Product Manual Version 1.0
ASBAP issue	6 December 2017
End treatments	ABSORB 350 Plastic Terminal - Temporary

Refer *VicRoads conditions for use (below)*.

VicRoads Conditions for Use

Tested design requirements

Containment level	Speed (km/h)	Vehicle mass (kg)	Point of Redirection (m)*		Minimum length of barrier (m)	Anchor/Pin Spacing (m)*	Dynamic deflection (m)	Working width (m)	Notes
			Leading	Trailing					
MASH TL-2	70	2270	39	39	105	N/A	1.2	1.88	Deflection is measured from the outer edge of the foot

Approved Terminals and Connections

<i>Crash Cushions or Terminals must be fitted to both ends of a barrier</i>	
Public Domain Products	
W-Beam Guardrail	Not permitted
Thrie-Beam Guardrail	Not permitted
Proprietary Products	
ABSORB 350 Plastic Terminal - Temporary	<ul style="list-style-type: none"> See ABSORB 350 Plastic Terminal - Temporary acceptance document for conditions of use. The 'AB350-DEFENDER 70' attachment must be used to connect the terminal to the barrier. The ABSORB 350 Plastic Terminal must be freestanding as required by the Product Manual. Not permitted as a terminal on a flare. The installation is restricted to speed limits of 70 km/h or less.

Design Guidance

System width (m)	0.68
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	1.2 metres
Slope limit	Side slope limit: 10 Horizontal to 1 Vertical (10%).
Systems conditions	<ol style="list-style-type: none"> 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. Flaring across the clear zone without a terminal listed below is NOT permitted. Each Defender Barrier 70 unit requires the installation of three (3) Ballast Boxes which are filled with concrete. Ballast Box washers shall be clearly identifiable for ease of inspection.
Gore area use	Not permitted
Pedestrian area use	Permitted – consider potential for snagging and deflection.
Cycleway use	Permitted – consider potential for snagging and deflection.
Frequent impact likely	Permitted – consider impact frequency of terminal
Remote location	Permitted
Median use	Permitted

Foundation pavement conditions

Submitted Foundation Pavement Conditions					
Pavement	Use	Accepted Speed (max)	Post/pin spacing (m)	Pavement construction	Post/pin type
Concrete	Permitted	70 km/h	<p style="text-align: center;"><u>Freestanding</u></p> Foundation pavement conditions must be smooth and free of snag points, kerbs or obstructions that may interfere with the operation of the product.		
Deep lift asphaltic concrete	Permitted	70 km/h			
Asphaltic concrete over granular pavement	Permitted	70 km/h			
Flush seal over granular pavement	Permitted	70 km/h			
Unsealed compacted formation	Not Permitted				
Natural surface	Not Permitted				

VicRoads specific conditions and comments

Where a departure from these requirements is required, users should understand the risks and apply engineering judgement.

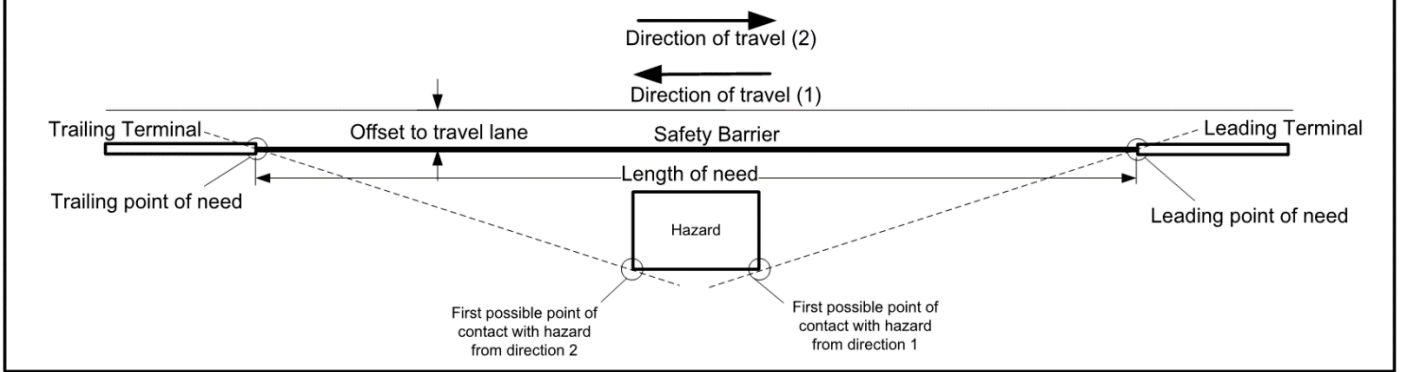
References

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

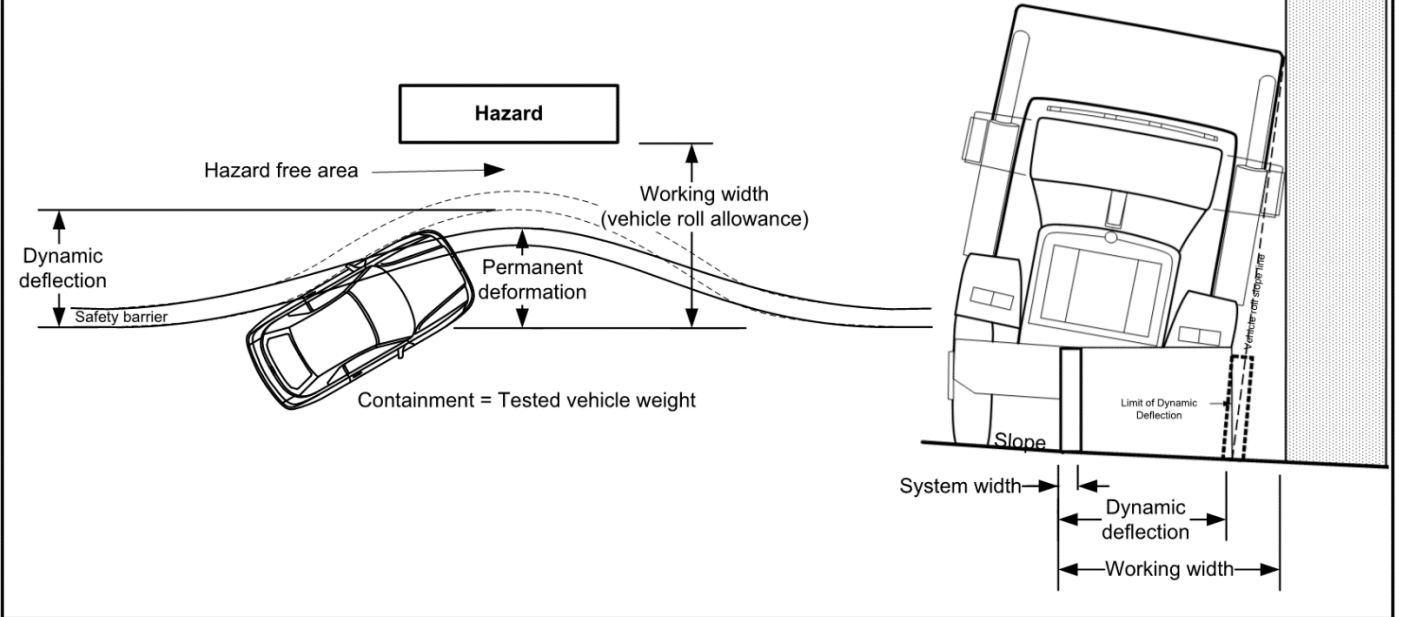
Detail Sheet – Update Summary

Issue	Approved	Amendment
Feb 2018	M-SSD	First edition

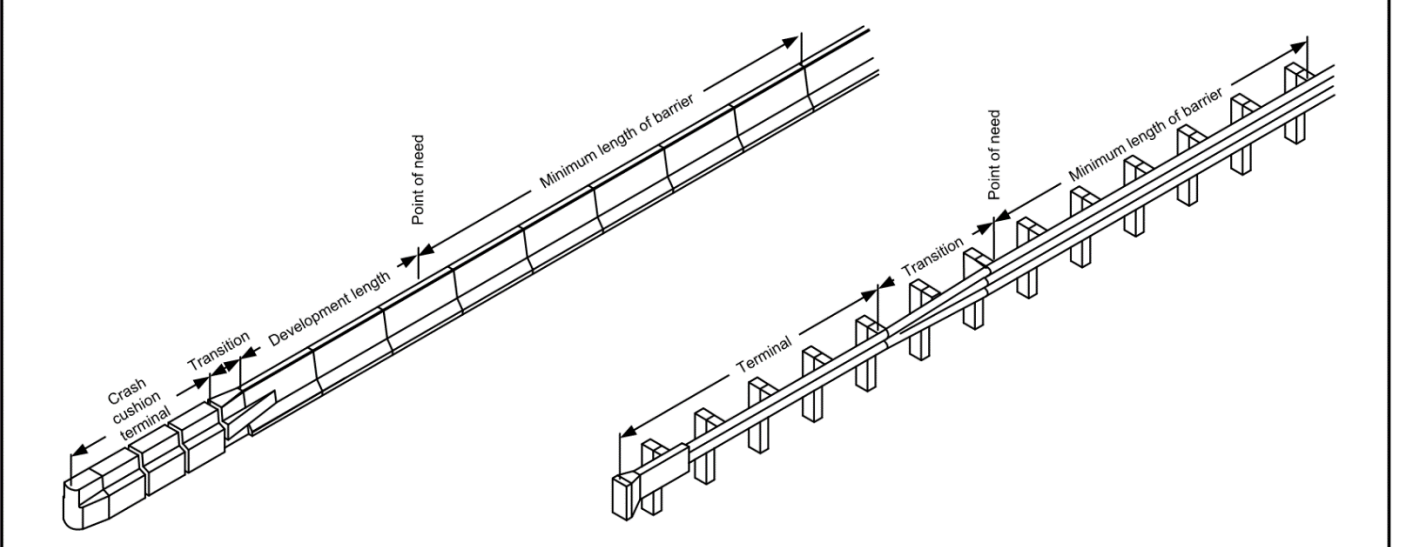
Design Terminology



Deflection Terminology



Terminal Terminology



Flare Terminology

