



Image source: Safe System Solutions Pty Ltd

FACTSHEET 1

ROAD SAFETY BARRIERS

Road safety barriers (henceforth referred to as “barriers”) are used to mitigate harm from lane-departure crashes that may otherwise have resulted in a more serious outcome, such as from a roll over or collision with a roadside hazard.

Application

Barriers are used along the roadside or as a median treatment between opposing direction lanes.

More recent literature¹ advocates for the use of flexible barriers as a corridor treatment with continuous lengths used as a primary intervention for lane departure crashes.

Flexible safety barrier systems are considered a ‘Primary’ Safe System treatment due to their high effectiveness and their superior safety outcome in most situations over other techniques such as clear zones.

The cost of road safety barriers is often a major factor limiting their wider use.

Implementation considerations

- Flexible barrier systems are preferred.
- Continuous lengths of barrier are preferred.
- Audio Tactile Line Marking assists in minimising nuisance strikes on the barrier system.
- For high motorcycle routes consider flexible w-beam systems with motorcycle underrun protection.
- Ensure barrier and barrier terminals are accepted for use by the jurisdiction in which the barrier products are proposed to be installed.
- Minimising end terminals through connecting short lengths of barrier reduces risk.
- Should median barriers restrict movements at access or side roads, appropriate alternative turn facilities should be provided.
- Barrier choice and design is a complex multi-aspect process with detailed guidance provided by Austroads and jurisdictions.

Safe system category

Primary

Effectiveness

High (up to 75% CRF)

Target road user groups

Passenger Vehicles, Heavy Vehicles

Target crash type

Lane departure (head-on and run-off-road left and right - including hit object and rollover)

Indicative cost

Median and edge barrier:
\$1.5M to \$5M per km

Median barrier:
\$0.5M to \$4M per km

¹ Austroads, 2018, Towards Safe System Infrastructure: A Compendium of Current Knowledge (AP-R560-18). Sydney, NSW: Austroads
Austroads, 2019b, Guide to Road Safety Part 5: Road Safety for Regional and Remote Areas (Superseded). (AGRS05-19). Sydney, NSW: Austroads.



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