

BIKER-SHIELD MOTORCYCLIST PROTECTION SYSTEM

REVISION REGISTER

Revision	Description	Date
1	Issued for use.	01/07/2020
1 A	Updated for connection to Ramshield HC. Product Manual updated.	18/12/2023

The Biker-Shield Motorcyclist Protection System (Biker-Shield) is a safety device aimed at reducing the crash severity for errant motorcyclists impacting the posts of Ramshield and Ramshield HC steel rail barrier systems. It is approved for use by Main Roads WA, under the following conditions.

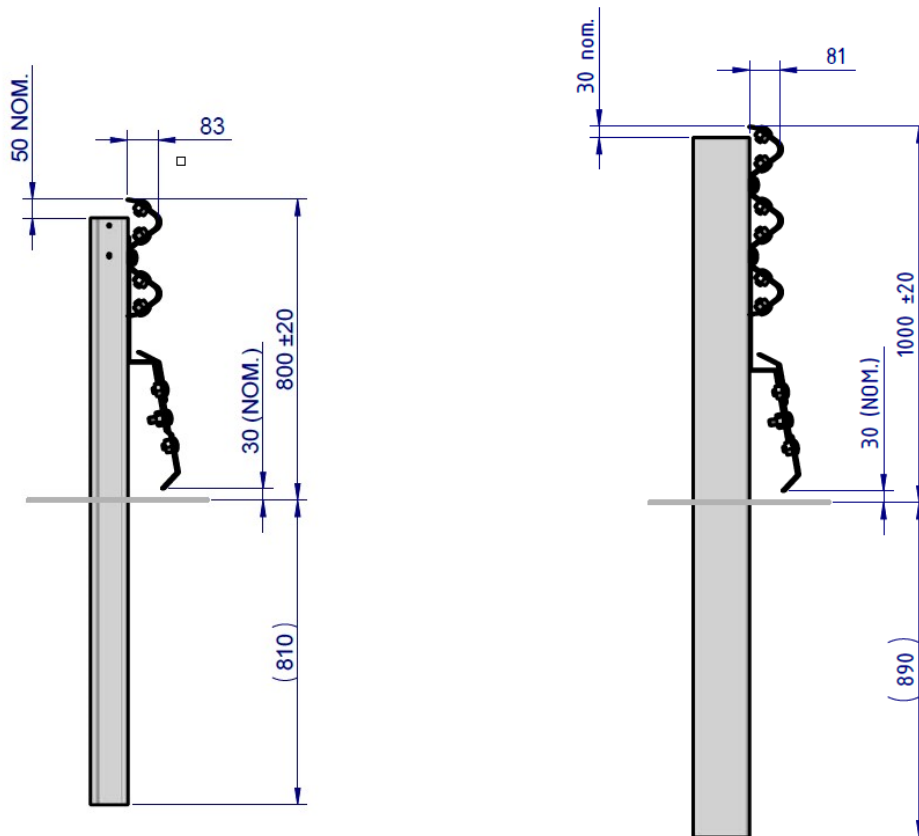
Images:



Photographs of the Biker-Shield System

BIKER-SHIELD MOTORCYCLIST PROTECTION SYSTEM

Drawings:



**Cross Section of Biker Shield
connected to Ramshield**

**Cross Section of Biker Shield
connected to Ramshield HC**

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Test Level:

- This system was tested with sliding dummies impacting the rail at 60km/h at an angle of 30° and falls within the EN1317-8 Impact Severity Level II.
- The addition of Biker-Shield does not adversely affect the performance of the Ramshield or Ramshield HC steel rail barrier systems.

Configuration:

- The Biker-Shield system consist of a continuous horizontal steel rail mounted onto bracket below the Ramshield or Ramshield HC steel rail barrier at midspan between the posts. The Biker-Shield splices are to be lapped in the direction of the adjacent traffic (i.e. the same way as the Ramshield steel rail barrier).
- The installed length of each Biker-Shield section is 4.0 m.

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Design Consideration:

- Design to be in accordance with the Biker-Shield Motorcycle Protection Product Manual version PM 025-05.
- The cross slope shall be not greater than 10% for the area in front and below the barrier and this area should be free of humps or hollows.
- The barrier should not be installed behind or on top of kerbing.
- Biker-Shield should be installed with a maximum gap of 30 mm between the steel rail and the ground surface.
- The barrier should not be attached to any component of the guardrail end terminal section.
- The rolled end sections must not be within a curve.

Terminal Permitted:

- The rolled end section must be fitted to both ends of the rail.

Limitations:

- The Biker-Shield system has only been tested on straight sections, its performance within curved sections is unknown.
- The Biker-Shield system may only be installed on the Ramshield or Ramshield HC steel rail barrier system.

Installation and Maintenance:

- In accordance with the Biker-Shield Motorcycle Protection Product Manual version PM 025-05.

Parts to be Replaced after Impact:

- All damaged or deformed components must be replaced. Repaired components must not be used.

Parts Typically Re-Useable after Impact:

- Undamaged components

Reference:

- Main Roads WA file 20/1017