

Head-on — All divided roads

Fact sheet #9 of 13

Safety standard

For all divided roads with posted speed greater than or equal to 80 kilometres per hour, medians shall be clear of all hazards unless shielded by median road safety barrier.

For all divided roads with posted speed greater than or equal to 80 kilometres per hour, with Annual Average Daily Traffic (AADT) greater than 10,000 vehicles per day, physical separation by median road safety barrier shall be provided.

Safety countermeasure

Approximately one third of all serious injury crashes on Queensland roads result from cars leaving the road. Safer roads and roadsides are a cornerstone of the Safe System approach. One well-established strategy for reducing the level of risk to cars veering off the road is to ensure the road on both sides, and including the median where carriageways are separated, is free from hazards.

Examples of roadside hazards include trees, culverts and roadside drop-offs which could cause a vehicle to roll.

Where a median cannot be maintained free from hazards and the posted speed is ≥ 80 kilometres per hour, the median should be shielded by a road safety barrier (Figure 1). Where there is $> 10,000$ vehicles per day, a median barrier is required irrespective of the presence of hazards as there is significant risk of head-on crash, even where the median is wide (Figure 2).

Cross-median crashes

Cross-median head-on crashes are particularly dangerous because they are typically high-energy collisions and, since more than one vehicle is involved, present a higher probability of multiple casualties. *The Australian National Road Safety Strategy 2011-20* notes that head-on crashes account for approximately 8% of serious road casualties, and that a very low proportion of the road network is fitted with median road safety barriers to separate opposing traffic flows.

Safety outcome

Median road safety barriers are a proven cost-effective countermeasure to reduce the frequency of cross-median head-on crashes. For guidance, refer to *Road Planning and Design Manual (RPDM) 2nd edition Volume 3 – Part 4a – Unsignalised and Signalised Intersections*.

This fact sheet is designed to assist the implementation of 13 safety standards for new and upgraded infrastructure on Queensland's state-controlled roads, as per the department's *Road Safety Policy* (2018, Appendix A). While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained within. To the best of our knowledge, the content was correct at the time of publishing.

180
head-on fatal and serious injury crashes
on divided state-controlled roads occurred
between 2011 and 2020.



Figure 1: Wire rope roadside barrier



Figure 2: Concrete median barrier

