



## How to score likelihood

Likelihood refers to factors that influence driver error rates, or things that affect the probability of a crash, regardless of traffic volume. For example, consider a rural T-intersection with clear lines of sight in all directions versus an intersection on a blind bend. Regardless of how much traffic each road carries, the probability of any one vehicle crashing at the blind bend is higher than at the intersection with clear lines of sight.

Likelihood and exposure can combine in interesting ways, and it often helps to consider each traffic stream separately. For example, consider an undivided rural road with a line of trees fairly close to one side of the road. The volume is 10,000 vpd (5,000 vpd in each direction). For run-off-road crashes, the exposure score for one direction would be based on an AADT of 5,000 vpd and

likelihood would be a factor of the number of hazards at the roadside, whether there is a shoulder or audio-tactile edge lines and so on. In the other direction, exposure would be based on 5,000 vpd, and likelihood would again be based on the roadside conditions. As the roadside conditions in this case are different on each side of the road, the overall run-off-road score would be based on an exposure of 10,000 vpd and the average likelihood score for both directions. As all vehicles are exposed to the risk of a head-on collision, the exposure score for head-on crashes should be based on an AADT of 10,000 vpd and the likelihood score should be based on the opposing traffic volume, because those vehicles are the hazard. This would then be moderated by any road safety features that may be present, such as audio-tactile or wide centre lines, and any additional hazards such as crests.

## What is a Safe System Assessment?

A Safe System Assessment is a process to measure road infrastructure's alignment with Safe System principles and the ultimate objective of eliminating fatal and serious injuries from crashes on the road network.

The process is documented in Austroads Report AP-R509-16, VicRoads' and DPTI's Safe System Assessment Guidelines. This Fact Sheet provides supplementary information and clarification.

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**FOR FURTHER INFORMATION**

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