

1 **What works when improving safe road infrastructure? The 10 treatments** 2 **that need to be used more**

3 Blair Turner^a, Chris Jurewicz^a, Tariro Makwasha^a

4 ^aARRB Group Ltd

5 **Abstract**

6 This paper describes a number of highly effective road infrastructure treatments. Each has been
7 applied internationally, and been proven to be beneficial in improving safety outcomes. However,
8 application within Australia for each has been limited to date. Based on several projects conducted
9 on behalf of Austroads and for individual road agencies, this paper brings together the evidence
10 base on these treatments, and makes the case for greater use of these. These include treatments that
11 can be applied on high speed rural roads, as well as others that are beneficial on urban arterial
12 networks.

13 **Background**

14 Provision of safe infrastructure is a key pillar in delivering Safe System outcomes. There are a
15 number of sources of information on appropriate treatments that might be used to improve safety
16 outcomes. However, there are a several treatments that are applied overseas, or only to a limited
17 extent within Australia. Awareness of effective treatments that can be applied at high risk locations
18 will assist road agencies improve the safety of roads.

19 **Method**

20 Individual evaluations have been conducted through several previous studies conducted on behalf of
21 Austroads and individual road agencies. Some results are drawn from literature reviews, but most
22 are based on before and after evaluations (with control group). Assessments are made on the crash
23 reduction benefit for these treatments.

24 **Results and Conclusions**

25 Information will be provided on crash modification factors for the following:

- 26 • Raised intersection platforms
- 27 • Raised midblock platforms and wombat crossings
- 28 • Road diets
- 29 • Signalised roundabouts
- 30 • Rest on red signals
- 31 • Consistent curve design and treatment
- 32 • Wide centreline treatments
- 33 • Vehicle activated signs for curves
- 34 • Vehicle activated signs for intersections
- 35 • Gateway treatments