Synthesis of Practices for the Implementation of Centreline Rumble Strips

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ABSTRACT

In North America, agencies are applying rumble strips along the centrelines of undivided two-way roads to reduce crossover collisions. This practice appears to be limited due to a lack of published knowledge regarding design practices, site selection for installation, expected benefits, and possible difficulties. In addition, there are no national guidelines in North America for the installation of centreline rumble strips (CLRS).

In Canada, three provinces (Alberta, Saskatchewan, and British Columbia) have implemented centreline rumble strips. In the United States, according to a survey conducted in 2003, 20 states have installed CLRS, and 18 states are considering installations.

The Transportation Association of Canada (TAC) Synthesis of Best Practices for the Implementation of Shoulder and Centreline Rumble Strips (2001) includes discussion of the initial benefits of CLRS and early knowledge of their implementation; additional information has become available since.

iTRANS was commissioned by TAC to perform a technical review of recent CLRS research and current practices for CLRS implementation. The objective of the project is to prepare a synthesis of current practices, and recommend implementation guidelines. This project is in the process of national approval by the TAC Chief Engineers' Council which represents the jurisdictional membership.

This paper summarizes the characteristics of current centreline rumble strip applications in Canada and internationally. A summary of the most common designs used in North America is provided, along with discussion of the safety effectiveness and potential concerns, such as maintenance and driver behaviour, as identified in current literature.