

# TRANSVERSE RUMBLE STRIPS

## WHAT ARE TRANSVERSE RUMBLE STRIPS?

Transverse rumble strips are grooves cut into the pavement that act as a warning device. When driven over, the strips create noticeable sound and vibrations to warn drivers of an approaching intersection where they must slow down or stop.



## HOW EFFECTIVE ARE TRANSVERSE RUMBLE STRIPS?

Transverse rumble strips are intended to address the unintentional running of a STOP sign<sup>1</sup>. However, this represents only one of several common scenarios for right-angle crashes at rural through-stop intersections<sup>3</sup>. For example, transverse rumble strips will not benefit drivers who have stopped, but misjudge gaps in traffic as they pull out onto the highway.



Drivers are more likely to slow down when approaching through-stop intersections that have transverse rumble strips<sup>4</sup>. However, the results of crash studies are inconsistent, sometimes showing decreases, increases, and roughly no change. Consequently, transverse rumble strips would not necessarily reduce the number or severity of right-angle crashes, at all locations. With respect to the factors that contribute to right angle crashes at typical rural intersections, misjudging gaps in traffic is associated with more than two-thirds of these crashes. Transverse rumble strips would not be an effective solution in these cases.

## KEY FUNCTIONS

Drivers receive a warning through the noise and vibrations generated by the rumble strips, which:

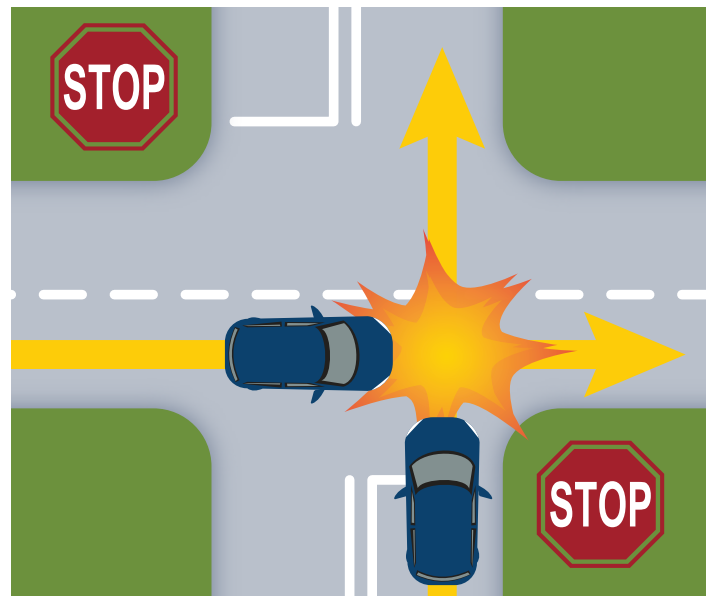
- Increases awareness of upcoming roadway changes
- Alerts drivers to reduce speed when approaching the intersection
- Attempts to reduce unintentional running of a STOP sign

## WHAT IS THE PURPOSE OF USING TRANSVERSE RUMBLE STRIPS?

The purpose of the rumble strips is to capture the driver's attention. The noise and vibration produced by the transverse rumble strips alert drivers of upcoming roadway changes so they do not unintentionally run a STOP sign, an action that could result in the injury or death of vehicle occupants.



*"It is concluded that the frequency of crashes at rural intersections is independent of the presence or absence of rumble strips."<sup>5</sup>*



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## COST

Per Intersection: \$2,000 - \$3,000

Includes a two-leg approach stop to the intersection.

The cost primarily involves operating the machinery to cutting the grooves into the pavement.

## ARE THERE ADDITIONAL CONSIDERATIONS FOR TRANSVERSE RUMBLE STRIPS?

A disadvantage of traditionally-cut transverse rumble strips is that noise may affect nearby residents. The noise impact of their implementation near residential areas should be evaluated before installation. Also, rumble strips gradually lose their effectiveness due to wear and should be monitored and maintained in order to provide original levels of noise and vibration. END

## REFERENCES

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