

Centerline Rumble Stripe Fact Sheet

Every Life Counts – Partnering to Save Lives

- Centerline Rumble Stripes (CLRS) are grooved patterns in the pavement placed on centerline that provide both an audible warning and a physical vibration to alert drivers that they are leaving the driving lane.
- CLRS are a proven low cost safety improvement to reduce target crash types. Target crashes for CLRS are head-on, sideswipe opposing, and run-off-road left – statewide there were 352 (30% of state’s total) fatal and serious injury crashes of these types on rural 2-lane roads between 2010 and 2014.
- The South Dakota Strategic Highway Safety Plan identifies CLRS as a priority safety strategy for reducing head-on vehicle collision with a 60% reduction of this crash type.
- SDDOT implemented CLRS guidelines in 2016 to reduce lane departure crashes systematically and proactively.
- The guidelines recommend that CLRS be placed on rural, undivided roadways with daily traffic greater than 2,500 vehicles.
- Lane Departure crashes occur on all types of roadways; however, there are some common factors that were used to determine roads covered in the guidelines:
 - **Driver related** – Young drivers, fatigued & drowsy drivers, distracted driving, and higher speeds.
 - **Road and environmental related** – Two lane, undivided roads; rural, high speed roads; high traffic volumes; horizontal and vertical curves .

Noise Concerns

- One of the designed intents of CLRS is to get the driver’s attention through noise; this can be disturbing to residences near CLRS.
- SDDOT CLRS guidelines allow flexibility in gapping rumbles near residences.
- MnDOT conducted a research project to develop a CLRS pattern that has a significant reduction in external nuisance noise. The new CLRS pattern is called a Sinusoidal Rumble Design, or Mumble Strips.
- Mumble Strip CLRS will be used in lieu of standard CLRS patterns on segments adjacent to residences.

The South Dakota DOT started initiating standalone shoulder rumble strip projects in 2010. Since these installations, SDDOT has seen a 20 percent reduction in fatal and serious injury run-off-road.

Michigan DOT has shown a 50 percent reduction in all types of target crashes (head-on, sideswipe opposing, and run-off-road left) after statewide installation of centerline rumble strips on 5,400 miles of its rural, non-freeway highway system.