

Reducing Head-on Crashes Centerline Rumble Strips



Nationwide, 75 percent of opposite direction fatal crashes occur on undivided two-lane roads. In Connecticut, approximately 30 deaths and 1,000 injuries occur each year from drivers inadvertently crossing the centerline of a roadway, resulting in potentially devastating head-on and sideswipe crashes.

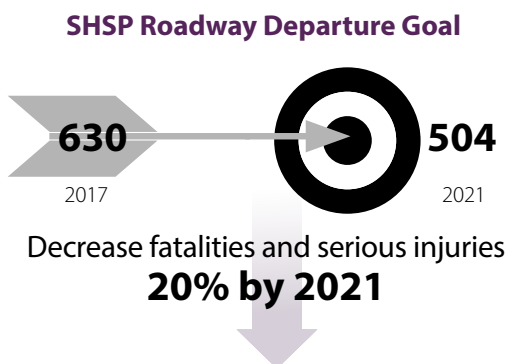
WHAT ARE CENTERLINE RUMBLE STRIPS?

Centerline rumble strips (CLRS) are grooves embedded into the centerline of the roadway, which are then painted over with standard yellow centerline markings. When the tires of a vehicle come into contact with the grooves, they produce noise and vibration.

HOW DO CLRS MAKE CONNECTICUT'S ROADS SAFER?

The noise and vibration generated when a vehicle drives over a CLRS alert drivers that they are in danger of crossing into the opposing lane of traffic. In addition, because of the shape of the groove, the reflective yellow centerline markings can be more visible during dark and wet weather conditions. This helps clarify to drivers where the center of the roadway is when visibility is limited.

A proven safety countermeasure, CLRS are being installed across Connecticut as part of the state's plan for significantly reducing fatalities and serious injuries by 2021.



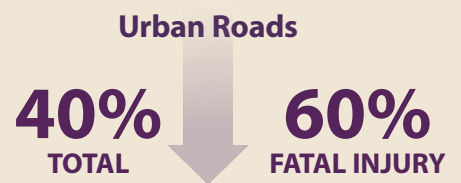
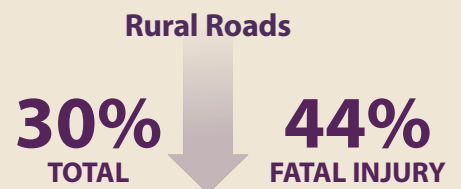
By the numbers...



HEAD-ON & OPPOSITE-DIRECTION SWIDESWIPE CRASHES



Studies show installing centerline rumble strips on two-land roads reduces crashes by up to:



Source: D. J. Torbic, J. M. Hutton, et al., *NCHRP Report 641: Guidance for the Design and Application of Shoulder and Centerline Rumble Strips*, (Washington, DC: Transportation Research Board, 2009).

CENTERLINE RUMBLE STRIPS IN CONNECTICUT

Where will Connecticut consider applying CLRS?

TRAFFIC VOLUME

On roadways where average daily traffic is at least 2,000 vehicles per day.

PAVEMENT

On roadways where the pavement has been overlaid in the last three years and is in good condition.

ROADWAY WIDTH

On roadways with a minimum of 14 feet of width from the centerline to the edge of pavement.

SPEED

On roadways where the speed limit is 35 mph or greater.

LENGTH

On roadways where the length of the proposed centerline rumble strips segment is approximately one mile.

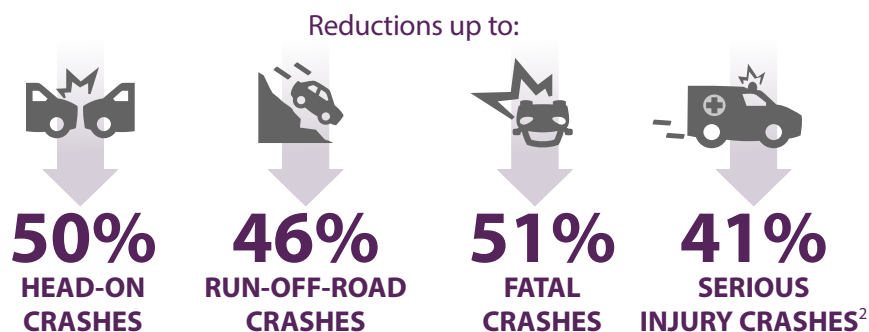
DENSITY

In locations with low residential density where residences are typically 100 feet or more from the edge of road.

Connecticut is one of at least 36 other States using CLRS to reduce crashes.

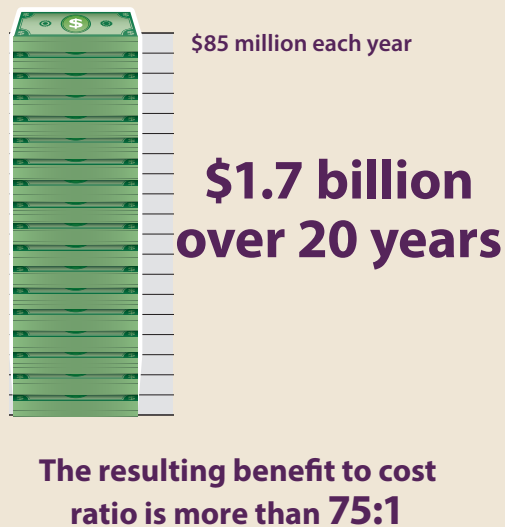
CLRS are being used across the country to improve safety, and the results have been highly positive. For example, where CLRS were installed along a 2.9 mile section of US 310 in Delaware, crash data showed the average number of head-on crashes declined by 95 percent annually.¹

In Michigan, a before-and-after crash study of 5,400 miles of CLRS installations found significant reductions across all crash severities and lane departure crash types, including:



As of December 2018, Connecticut has installed 375 miles of CLRS on the state system and 86 miles on local roads. Although formal before-and-after studies have not been conducted to assess the effectiveness of these installations, preliminary findings are positive and show the potential for significant crash reductions—**possibly as much as 30 percent.**

Based on crash data from 2006-2008, New York State Department of Transportation determined that installation of CLRS on the 7,040 miles of roadway that meet the state's installation criteria would save:



Source: New York State Department of Transportation, "Centerline Rumble Strips" web page. Available at: <https://www.dot.ny.gov/programs/rumblestrips/centerrumblestrips>

¹ B. Persaud, R.A. Retting, and C. Lyon, *Crash Reduction Following Installation of Centerline Rumble Strips on Rural Two-Lane Roads*, (Insurance Institute for Highway Safety, 2003).
² Michigan Department of Transportation, "Rumble Strips Are Busy Saving Lives" web page. Available at: <http://www.michigan.gov/mdot/0,1607,7-151--191394--00.html>