

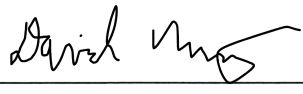
## Nebraska Department of Transportation (NDOT)

### Roadway Design Division – Policy Letter

Policy Number: **DES 22-04**

Approved by:  / 12/28/22  
Mick Syslo, Roadway Design Engineer, P.E. Date

Approved by:  / 12-28-22  
Dan Waddle, Traffic Engineer, P.E. Date

Approved by:  / 1-19-2023  
for Mary Burroughs, FHWA Date  
Engineering and Operations Team Leader, NE FHWA

Roadway Design Manual chapter affected by this policy letter:

**Chapter Eight: Surfacing**

Section 7.C Centerline Rumble Stripes

### **POLICY FOR INSTALLATION OF CENTERLINE RUMBLE STRIPES**

#### **Background**

Reducing the occurrence of vehicles deviating from their assigned lane by either leaving the roadway or encroaching on or crossing into opposing traffic lanes is one of the critical emphasis areas for the Nebraska Strategic Highway Safety Plan. Installation of centerline rumble stripes is a cost-effective measure recognized by federal and state transportation agencies for alerting errant drivers of lane departure and providing the driver with an opportunity to correct back into their lane, potentially mitigating lane departure crashes.

#### **Purpose**

The purpose of this policy is to establish a systemic method to analyze the conditions on Nebraska's state highway system and to establish guidelines for the installation of centerline rumble stripes as a mitigation measure for lane departure crashes. A systemic method involves widely implemented measures based on the roadway characteristics correlated with specific severe crash types.

POLICY FOR INSTALLATION OF CENTERLINE RUMBLE STRIPES

**Policy**

The Nebraska Department of Transportation (NDOT) has determined through demonstration projects, national studies, and Nebraska crash history analysis that the installation of centerline rumble stripes is an effective countermeasure for lane departure crashes on two-lane two-way roadways. The NDOT also recognizes that installing centerline rumble stripes utilizes transportation funds that could be available for other transportation needs on the state highway system. A systematic or systemic approach to the implementation of safety mitigation strategies is important regardless of the mitigation strategy to be used. Due to the random occurrence of lane departure crashes, it is important to recognize that any lane departure crash could be a fatality based upon the random presence of another vehicle, the roadside configuration, and the health of the individuals involved in the crash. Consequently, this policy for implementation is based upon the total number of lane departure crashes.

After reviewing the crash data and research literature, the NDOT has determined the following to be guiding principles for the installation of centerline rumble stripes on the state highway system new pavement projects. Centerline rumble stripes may be placed on existing state highway pavement at the direction of the **M&R Engineer** or designee.

- Roadway type – Rural two-lane undivided with two-way traffic
- Lane width – No less than 11 feet; the lane width will be 12 feet minimum where edgeline rumble stripes are present.
- Pavement section with a recommended minimum overlay thickness of 2 inches of pavement and the surface in good condition
- Posted speed limit of 50 mph or greater

After centerline rumble stripes are installed, they will be perpetuated on subsequent projects unless their function is replaced by a similarly effective mitigation measure for lane departure crashes or the new pavement overlay thickness is less than 2 inches. Centerline rumble stripes may be placed on new pavement overlays with a thickness of less than 2 inches at the direction of the **M&R Engineer** or designee.