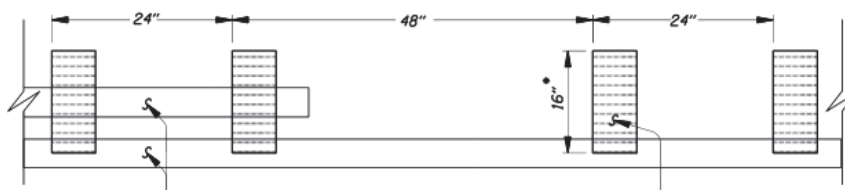
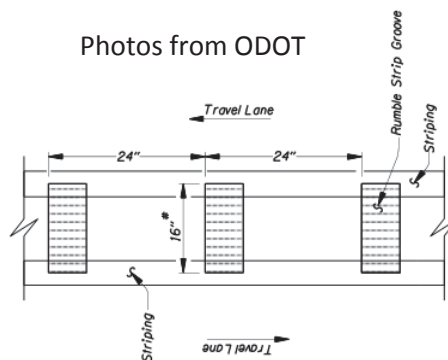


Name: <b>Install Rural Centerline Rumble Strips</b>	ODOT Countermeasure Number: <b>RD15</b>
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**What is it:** Rumble strips are ground/milled in patterns on the roadway that provide both an audible warning (rumbling sound) and a physical vibration to drivers.



Photo from FHWA



**Where to use:** Where you have a high frequency of roadway departure crashes, particularly head-on or sideswipe meeting crashes.

**Why it works:** The audible warning and physical vibration inside the car alerts drivers that they are leaving their travel lane, allowing them time to make a safe recovery back into their lane.

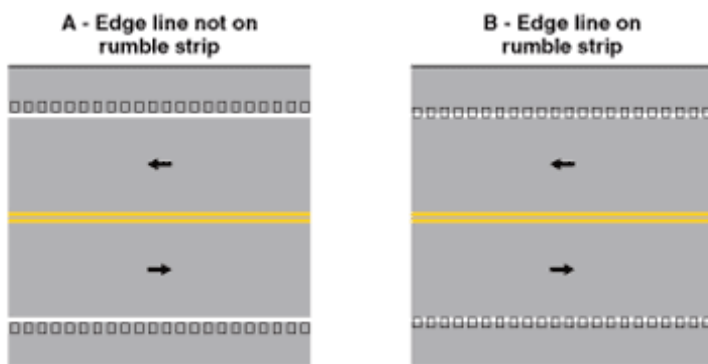
**Impediments to Implementation:** It is important to consider that there is adequate pavement/lane width to minimize the amount of external noise generated by rumble strips. It is also important to consider the potential noise impacts to nearby residential areas. Finally, pavement quality needs to be considered before placing rumble strips to avoid reducing the design life of the pavement.

**General Notes:** This countermeasure shall be applied systemically.

<b>Crash Types Addressed</b>	<b>Severity Type Addressed</b>
All Crashes	All Injury (Not PDO's)
<b>CRF Range of Effectiveness</b>	<b>ODOT CRF Value</b>
9 - 45%	12%

<b>Name:</b> <a href="#">Install Shoulder Rumble Strips</a>	<b>ODOT Countermeasure Number:</b> <a href="#">RD16</a>
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**What is it:** Rumble strips are ground/milled in patterns on the roadway that provide both an audible warning (rumbling sound) and a physical vibration to drivers.



Photos from FHWA

**Where to use:** Where you have a high frequency of roadway departure crashes, particularly fixed object and non-collision crashes.

**Why it works:** The audible warning and physical vibration inside the car alerts drivers that they are leaving their travel lane, allowing them time to make a safe recovery back into their lane.

**Impediments to Implementation:** It is important to consider that there is adequate pavement/lane width to minimize the amount of external noise generated by rumble strips and provide bicycles with adequate shoulder width to ride on. It is also important to consider the potential noise impacts to nearby residential areas. Finally, pavement quality needs to be considered before placing rumble strips to avoid reducing the design life of the pavement.

**General Notes:** This countermeasure shall be applied systemically. Shoulder rumble strips can be placed on or adjacent to the edge line pavement markings.

<b>Crash Types Addressed</b>	<b>Severity Type Addressed</b>
<a href="#">Run Off The Road</a>	<a href="#">All Severities (Including PDO's)</a>
<b>CRF Range of Effectiveness</b>	<b>ODOT CRF Value</b>
<a href="#">16-42%</a>	<a href="#">22%</a>