

Edgeline Rumble Stripes

Draft Update of ODOT Traffic Engineering Manual

UPDATED: Wednesday, September 08, 2010

The Ohio Department of Transportation is investing approximately \$4 million during State Fiscal Year 2011 to install roughly 1,335 miles of edgeline rumble stripes along many sections of Ohio's state highway system (non-interstate). As part of a statewide systematic safety improvement effort, the goal is to reduce fatal and serious-injury accidents caused by drivers running off the road. Edgeline rumble stripes are recommended by the Federal Highway Administration as a relatively low-cost investment that can yield high returns on safety.

A recent ODOT safety analysis showed that fixed-object crashes are one of the leading causes of serious injuries and deaths on Ohio roadways. Approximately 3,000 serious injuries and 450 fatalities every year in Ohio are a result of drivers running off the road and colliding with trees, ditches, utility poles or other fixed objects. These crashes represent about 35% of all fatalities and 30% of all serious injuries each year. **National studies have shown that rumble strips and stripes can decrease crashes by between 20% and 35%.**

There is a difference between the rumble STRIPS on the interstates and the rumble STRIPES being placed on several state routes. The smaller stripes are half as deep and only a third of the width of interstate strips. The smaller stripes run under the painted edgeline (which actually makes the edgeline easier to see at night and wet pavement conditions). The narrower width and more shallow depth of the rumble stripe also create less noise when driven over by vehicles - enough to wake the driver but not so much to be disruptive to people living along the state route.

Below is the draft edgeline rumble stripe guidance that is expected to be included in the next update to ODOT's Office of Traffic's Traffic Engineering Manual (TEM) in October.

EDGE LINE RUMBLE STRIPES

General

Edgeline rumble stripes consist of a series of rumble strips which are ground into the pavement and then overlaid with an edge line pavement marking. The benefits include increased wet / night visibility of the edge line pavement markings and the corresponding audio and vibratory impacts which result when a motorist's tires pass over the rumble strips.

Guidelines and Placement Standards

Edgeline rumble stripes are to be installed on ODOT-maintained roadways meeting all of the following criteria:

- 2' or greater shoulder
- 80 PCR or greater, and shoulder condition suitable for rumble stripe treatment
- 11' minimum lane width
- 2 lane routes outside urban areas
- Speed limit greater than 45 mph

Discretion may be used for roadways where the following conditions or roadway users are encountered:

- Areas of Amish buggy travel
- Areas of high driveway density outside urban areas

Gaps shall be left at intersections, driveways and over structures as detailed in the Office of Traffic Engineering Rumble Stripe PIS Number 206410 plan insert sheet. Rumble stripes shall be discontinued 650' in advance of and when leaving urban areas, including municipal corporation limits and urban area boundaries.

Any roadway or roadway section which has been designated by the Office of Multi-Modal planning or an MPO as a bike route and has a paved shoulder width of less than 3 feet, should not be considered for edge line rumble stripes unless an existing crash problem is exhibited.