

Wake up drivers with milled rumble strips

THE IOWA DOT is installing a new type of rumble strip on paved shoulders, using a machine that mills, or grinds, the strips into the pavement. Strips are generally about 7 inches by 16 inches by 1/2 inch deep and are spaced about 12 inches apart (see figure).

Why on shoulders?

About one-third of traffic fatalities in the U.S. are the result of single-vehicle, run-off-the-road crashes.

Some errant vehicles leave the roadway because of driver inattention or drowsiness or because of low visibility due to rain, snow, or darkness. Where there are rumble strips in the shoulder, tire sounds and vibration caused by driving over the strips can alert drivers in time to correct their direction.

Why milled?

Milled rumble strips have proven to be more effective than rolled-in strips—more than 12 times rougher and 3 times louder, according to one study. Passing tires drop into the strip, causing enough tire noise and vehicle vibration to penetrate the cab of a large truck.

Unlike rolled-in rumble strips, which must be installed at the time of paving, milled strips can be cut into any existing paved shoulder in adequate condition.

Milled rumble strips cost roughly 13 cents per foot.



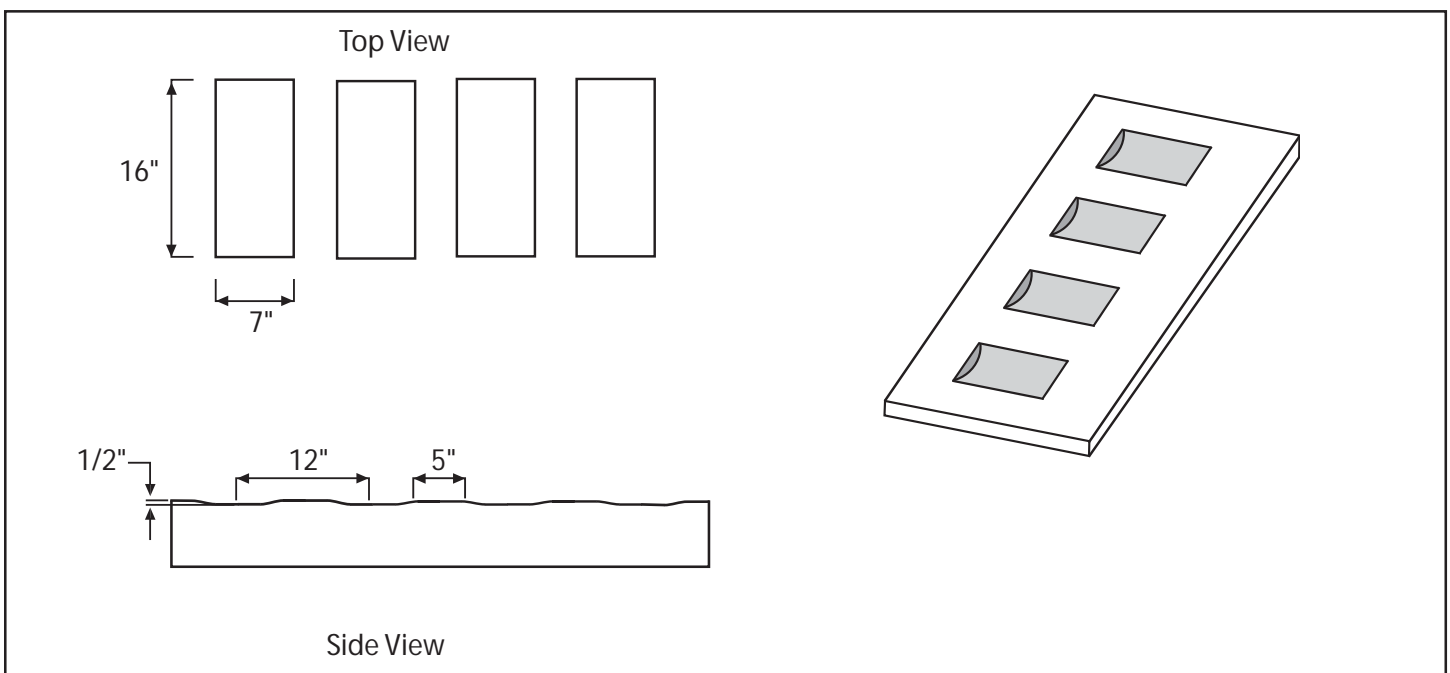
Considering bicyclists' needs

Bicyclists occasionally need to move back and forth between the driving lane and shoulder. Even though bicycles can be ridden over milled rumble strips safely, doing so can be uncomfortable for riders.

So, where bicycles are legally allowed on the roadway, the Iowa DOT leaves 12-foot gaps (no strips) between 48-foot segments of shoulder with rumble strips. The gap allows bicyclists to avoid rumble strips when moving back and forth between the driving lane and shoulder. (The length of the gap was determined using information from a study performed in Arizona.)

For more information

Most of the information in this article comes from the FHWA's safety website, <http://safety.fhwa.dot.gov/programs/rumble.htm>. To find out more about milled rumble strips in Iowa, contact William Stein, Iowa DOT design methods engineer, 515-239-1402, dan.harness@dot.state.ia.us. •



This illustration of milled shoulder rumble strips is not necessarily to scale.