

U.S. Route 54 Road Safety Audit - Mexico to Camdenton
Executive Summary
November 1, 2016

Signs, guard cable and high friction surface treatments on curves are among the Missouri Department of Transportation's recommendations to enhance safety on the 100-mile stretch of Route 54 from Camdenton to Mexico. The audit stemmed from a recent rash of wrong-way drivers on Route 54 in Miller County, along with a double-fatality crash on a curve located between Holts Summit and Jefferson City that occurred in July.

Conducted by a multi-agency task force, the audit examined wrong-way, curve and cross-median crash data for the five-year period covering Jan. 1, 2011 to July 19, 2016. The safety audit members also visually observed crash locations on Route 54.

The audit found the existing conditions on the Route 54 corridor to meet all state and federal standards. The audit recommendations are above standard requirements and are additional safety enhancements that could further reduce incidents.

Wrong-Way Crashes

The stretch of Route 54 from Camdenton to Mexico has experienced 10 wrong-way crashes in the past five years resulting in 11 fatalities. In nine of the 10 wrong-way crashes, the wrong-way driver was either impaired physically, such as by a seizure, or by drugs and alcohol.

To help reduce the instances of wrong-way crashes, MoDOT will move to install additional "Do Not Enter" and "Wrong Way" signs in medians, on shoulders and at interchange off-ramps. This work will be handled either internally by MoDOT's maintenance staff or through contract work. In addition, MoDOT traffic engineers will review all interchanges for "Advance Turn Arrow" signs that could potentially mislead motorists to drive the wrong way. If found, those signs will be moved or taken down.

Curve Crashes

Five years of crash data show there have been 410 crashes on curves on the audited stretch of Route 54. The crash data shows the following factors as contributing to the curve crashes: driving too fast for conditions; improper lane use; impaired driving; overcorrection; driver fatigue and distracted driving.

The audit focused on 20 curves that had experienced more than one crash per year. On those curves, MoDOT will install chevron signs - rectangular signs with large arrows that warn motorists of upcoming sharp turns in the road - if they don't already have them.

In addition, seven curves were identified to receive high friction surface treatment, an innovative pavement treatment that provides additional traction. This pavement treatment has been placed on several mid-Missouri curves in the past several years, including those on Route 54 at the Madison Street exits in Jefferson City, and has been shown to reduce out-of-control crashes by up to 90 percent per year.

The seven curves to receive high friction surface treatment are located:

- Between Route A and Route Y in Camden County;
- Between the Grand Glaize Bridge and Passover Road in Camden County;
- In the area of Fall Hill Road and Old Bass Road in Cole County;
- East of Summit Drive in Callaway County. This curve will receive the high friction surface treatment as part of an existing resurfacing project that will take place next spring or summer;
- Near the Business 54 bridge north of Fulton in Callaway County;
- East of Kingdom City in Callaway County. This area has already received high friction surface treatment under a recent resurfacing job; and
- Just west of the Callaway/Audrain county line in Callaway County.

Cross-median Crashes

Sixty-nine cross median crashes have occurred on Route 54 between Mexico and Camdenton in the past five years, with three crashes resulting in four fatalities. The top three contributing factors to these cross-median crashes were driving too fast for conditions, physical impairment and distracted/inattentive driving.

While past studies and statistics have not shown the Route 54 corridor in mid-Missouri to warrant guard cable, increasing traffic volumes, seasonal spikes in traffic volumes and the number of cross-median crashes along the corridor during the RSA study period are seen as reasons to proactively install guard cable to further enhance safety on Route 54.

MoDOT has identified three areas to install guard cable along the 100 miles of Route 54 between Camdenton and Mexico: Jefferson City to Kingdom City; Osage Beach to Camdenton and Jefferson City to Osage Beach.

MoDOT will work with its planning partners to prioritize and identify funding for this work, as well as determine if some of the work can be factored in with other projects.