

# MISSOURI DEPARTMENT OF TRANSPORTATION'S SAFER TOOL



MoDOT's new tool, Safety Assessment for Every Roadway (SAFER), is a series of questions and considerations used to facilitate a discussion about safety within every transportation project in Missouri. This questionnaire, which is based on the Safe System Approach (SSA), aims to move toward proactively lowering the risk of serious injuries and fatalities from traffic crashes.

[SAFER](#) includes questions about access management, roadway alignment, roadway visibility, roadway surface, intersection or interchange design, roadside conditions, vulnerable roadway users, transportation systems management and operations (TSMO), and other operational considerations.

One of MoDOT's primary focuses over the last several years has been taking care of the existing transportation system. The majority of the department's budget has gone toward maintaining and preserving current roads by repaving, overlaying, or resurfacing. Leadership at MoDOT believed that even within these types of projects, there are opportunities to incorporate safety improvements to ultimately move toward zero deaths on our roadways, leading to the creation of SAFER.

The development of SAFER was made possible by leaders who took the initiative to ensure safety is instilled in MoDOT's culture. With a strong desire to make safety a priority, the goal is to continually work together to shift MoDOT's culture to include a proactive, intentional safety assessment for every project. Additionally, SAFER is used to ensure every project is sufficiently scoped and estimated with these safety considerations in mind from the start. MoDOT was guided by Missouri's SHSP to prompt solutions that can mitigate the consequences of risky behaviors (occupant protection, distracted driving, speed, and impaired driving) from an infrastructure perspective.

The SAFER questions were developed with input by many individuals involved in various functions of project development, ensuring a fresh set of eyes on the questions regularly during its creation. MoDOT is divided into seven districts, which all have latitude to execute their own projects. Each of these districts had input in the document's creation and have been given freedom to use the SAFER questions to fit the context of their individual projects. This flexibility within the MoDOT districts seeks to reframe the thought process during project development rather than dictate entirely new projects or an unfeasible workload within each district.



SAFER Document

The purpose of the tool is ensuring the project teams are asking the right questions during the conceptual stage of roadway design and educating teams to do their part for the 'Safer Roads' element of the SSA. Often, the questions in the SAFER document were overlooked or there was a lack of knowledge due to staffing turnover. One notable benefit of SAFER is that it develops and documents the knowledge base of employees so that key lessons learned, and safety culture are not lost when employees leave the DOT or retire. This tool also makes safety top of mind for new employees and shares institutional knowledge.

In other state DOT's programs, similar initiatives have taken place in the form of checklists. However, MoDOT found that utilizing a list of questions may spur more meaningful discussions, leading to more robust assessments and, ultimately, more effective results. As the SAFER questions are discussed, solutions and answers are developed for the project record. Utilizing a question-based assessment rather than a checklist does mean that at times, questions about a potential safety improvement can be difficult to answer. When these difficult questions arise, those working on the project are encouraged to coordinate with other MoDOT staff to brainstorm solutions that are feasible and within the scope of the project.



SAFER Questions Page

A prime example of SAFER being used can be found in the St. Louis district near a winery. There was a project that planned to add a shoulder to a two-lane road. However, after considering the SAFER questions, the team working on the project found that many pedestrians and cyclists were using the trails that cross this roadway to reach wineries and other businesses. This led them to find that there were curves on this roadway that could obstruct the view of drivers to these pedestrians. Without SAFER, the project may have missed these details that validated and resulted in the use of pedestrian safety countermeasures on the roadway.

As SAFER continues to be used, progress will be tracked to gauge its effectiveness. Three factors will be considered to evaluate progress: the number of projects incorporating measurable safety improvements, the dollar amount programmed for safety improvements, and the anticipated reduction in deaths and serious injuries as a result of the improvements.

Resource:

<https://www.modot.org/safety-assessment-every-roadway-safer>