**DATE:** 09/25/2020  | **PROJECT AREA:** Design

**TITLE:** Evaluating Roadway Barrier Strength Considering Higher Speed Limits

**PROBLEM STATEMENT:**

The Arkansas Highway Commission recently approved increasing the interstate speed limit in rural sections to 75 mph. Consequences of this decision include safety and the significance of this increased speed on the suitability of Arkansas roadway barriers. AASHTO provides guidance on reviewing barrier safety in the Manual for Assessing Safety Hardware (MASH). The MASH guidelines include testing protocol and evaluation methods for reviewing roadway safety hardware. This proposed study will evaluate how increasing the speed limit by 5 mph impacts Arkansas highway barrier strength and their current suitability. The basis of this study will be to continue to ensure roadway safety for Arkansas drivers even at this higher speed limit.

**OBJECTIVES:**

- Decide on barrier types to be evaluated.
- Review research from other states that have speed limits of 75 mph.
- Review existing crash test result data.
- Develop a numerical model to extrapolate results from a 70 mph speed limit to 75 mph.

**FORM OF RESEARCH IMPLEMENTATION AND RETURN ON INVESTMENT:**

A final report and presentation will be produced that will: evaluate current Arkansas interstate barrier strength considering higher impact speeds; recommend retrofit methods to improve barrier strength and behavior; and recommend design modifications for future barrier installations.

Results of this safety will help to promote highway safety and decrease auto fatalities.

**Estimated Project Duration:** 36 Months

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**Reviewed By:**

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<th>Standing Subcommittee Ranking</th>
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