**DATE:** 08/31/2018  **PROJECT AREA:** Planning

**TITLE:** Evaluation of Sinusoidal Rumble Stripes

**PROBLEM STATEMENT:**
The Arkansas Department of Transportation began installing sinusoidal rumble strips in an effort to reduce external environmental noise pollution along Arkansas highways. The Research section conducted a product evaluation of these new strips, and found that they were indeed quieter than traditional rumble strip design. Research Staff members made several anecdotal observations that installed 6-inch sinusoidal rumble stripes appeared to be ineffective and in some instances to be non-functioning. The purpose of this project is to evaluate the efficacy of sinusoidal rumble stripes in Arkansas, to better understand their functionality, design, and safety value.

**OBJECTIVES:**

- Evaluate the efficacy of sinusoidal rumble stripes using sound and vibration data.
- Determine if in-layed pavement markings inhibit the safety factor of installed stripes.
- Assist Traffic Safety Section in evaluating current sinusoidal rumble stripe design and installation.
- Determine if current design standard is optimal.

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

A final report detailing findings of this study may be used to update current sinusoidal rumble stripe specifications.

---

**Estimated Project Duration:** 12 Months

**PREPARED BY:** Bentley Reynolds

**AGENCY:** Arkansas Department of Transportation

**PHONE:** (501) 569-4975  **REVIEWER:** Tymli Frierson

<table>
<thead>
<tr>
<th>Standing Subcommittee Ranking</th>
<th>Advisory Council Ranking</th>
<th>Statement Combined with Statement Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/6</td>
<td>15/37</td>
<td></td>
</tr>
</tbody>
</table>