Budget: $500,000    Duration: 48 months

Project Summary
This project will determine the influence of Reclaimed Asphalt Pavement (RAP) in Hot Mix Asphalt (HMA) mixes. Among the tasks are as follows:

- Document the state of the practice of RAP stockpile management and RAP processing in the state.
- Study the PG grading of the virgin, recovered, and blended binders pertaining to the percentages of RAP used in the mix design.
- Evaluate the MEPDG input parameters for the blended binders.
- Conduct elemental analyses of the blended binders.
- Determine physical and mechanical properties including gradation, soundness and insoluble residue of virgin and extracted (from RAP) aggregates.
- Test field compacted specimens from selected sites.

Justification
Since 2008 NMDOT has allowed up to 35 percent RAP materials in HMA mixes. However no state-specific, in-depth evaluation of the influence of this much RAP has been performed. While reusing asphalt pavement has environmental and cost benefits, it may be creating cracking problems, the primary distress in NMDOT pavements. In addition, there are wide variations in RAP quality and laboratory/field performance of asphalt mixes with high RAP content.

Anticipated Benefits
Identifying the optimal highest percent of RAP to use in Hot Mix Asphalt will maximize the environmental and cost benefits of the practice without sacrificing pavement quality.

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