

Use of Falling Weight Deflectometer and Ground Penetrating Radar in Pavement Design, Maintenance and Management NM12SP-01

Budget: \$475,000 **Duration:** 36 months

Project Summary

This project will determine the benefits to pavement design, maintenance, and management from the use of non-destructive pavement testing technology, namely falling weight deflectometer (FWD) and ground penetrating radar (GPR), rather than destructive coring.

Justification

FWD data can be used to report existing pavement condition as reported by modulus index. Such an index could be used to determine a necessary treatment to prolong pavement life...i.e. general maintenance, rehabilitation, reconstruction. The FWD may be used to develop a modulus for existing Hot Mix Asphalt, base course, and subgrade to provide a more reliable approach to pavement rehabilitation based on mechanistic (multi-layer linear elastic) principles. GPR will provide quick, accurate pavement section thicknesses to aide in the FWD determination.

Anticipated Benefits

These technologies will enable the Department to determine the life of a pavement from a mechanistic standpoint. Refining pavement design according to actual field condition is expected to significantly reduce maintenance costs and extend pavement life.



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To Be Determined

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