

| UTC Project Information | |
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| Project Title | MPC-471 – Enhancement of Mechanistic-Empirical Pavement Design Guide for Roadway Design, Construction and Rehabilitation |
| University | University of Wyoming |
| Principal Investigator | Kam Ng Khaled Ksaibati |
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| Funding Agencies | USDOT, Research and Innovative Technology Administration |
| Agency ID or Contract Number | DTRT13-G-UTC38 |
| Project Cost | \$105,927 |
| Start and End Dates | September 30, 2013 to September 30, 2018 |
| Project Duration | September 30, 2013 to September 30, 2018 |
| Brief Description of Research Project | <p>The ongoing WYDOT’s research focuses on calibrating local material properties for unbound subgrade layer in Wyoming while the proposed 2-year research serves as a supplementary study to enhance the full implementation of MEPDG in Wyoming, including rehabilitation roadway projects. This research project has the following principal objectives:</p> <ol style="list-style-type: none"> 1) Improve the prediction of pavement performance in the design process; 2) Enhance the pavement design efficiency of new and rehabilitated roads 3) Facilitate MEPDG implementation in the state of Wyoming. |
| Describe Implementation of Research Outcomes (or why not implemented) | The research outcomes were shared with WYDOT to be considered for implementation to achieve a more efficient and economical pavement design. The recommendations can be incorporated into the MEPDG pavement design using the AASHTOWare software. |
| Place Any Photos Here | |
| Impacts/Benefits of Implementation (actual, not anticipated) | On average, the overall material cost for a new flexible pavement designed based on Design Approach 1 using the WYDOT 2012 design guide was |

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| | found to be 21% higher than the Design Approach 2 using the locally calibrated material properties and distress coefficients. |
| Web Links <ul style="list-style-type: none">• Reports• Project Website | https://www.ugpti.org/resources/reports/details.php?id=940 |