FY2025 Research Program

The following are the projects that MoDOT intends to proceed with contracting with an external organization. They are organized by broad topic. In most cases, a Request for Proposal will be developed and posted, depending on funding availability and internal staffing levels. Given that MoDOT may have higher interest levels in one aspect or portion of a submitted research idea, some externally submitted ideas for research may be reflected in part or in combination with other similar ideas.

Bridge
- Simple for Dead, Continuous for Live (SDCL) - MoDOT Steel Superstructure Standards
- Life Expectancy of Aged Pre-tensioned MoDOT Bridge Girders. *Timing will be dependent on the construction schedule and removal of bridge A0130.*

Construction
- Developing Guidelines for Quality Control of Recycled/Reclaimed Asphalt Pavement (RAP) Stockpiles

Design
- Using Artificial Intelligence (AI) to Write Land / Legal Descriptions
- Using AI to Analyze Awards and Contractor Capacity. *This will be included in the FY24 project on Letting Optimization which is still pending RFP release.*

Financial
- Exploring Roadway Funding Mechanisms for Alternative Fuel Vehicles

Highway Safety and Traffic
- Maximizing the Wizardry of WAZE™ Mobile Applications to Expand Traveler Advisory Information and Collect Crowd-sourced Data in Order to Improve Driver Safety
- AI Enabled Vision System for Intersection Analytics. *This may be tied into an existing research project.*

Hydraulics
- Use of Small UAVs (Unmanned Aerial Vehicles) for Field Measurement of Hydraulic Parameters in Small Drainage Basins

Materials
- Examine Reducing Aggregate Size for Increased Durability

Safety and Emergency Management
- Radar-aided AI for Alerting Crew on or near the Roadway