

Date of RFP
3/3/2022

Maryland Department of Transportation
State Highway Administration
FY 2022 Research Work Program

Closing Date
3/11/2022

RESEARCH PROJECT
Request for Proposals (RFP)

RFP#:	2022-2-01
Title	<i>State of Practices - Transportation Construction Project Tracking Systems</i>
Project Description	<p>There are many complexities to managing and delivering transportation construction projects, including but not limited to the requirements surrounding the use of federal funds, environmental regulations, property requisitions, and prior rights agreements with private utility companies. The MDOT SHA has many offices and technological systems dedicated to the various components of the project management lifecycle. The MDOT SHA could benefit from an agency wide project tracking system to support the planning, execution, and delivery of construction projects.</p> <p>The processes and metrics that will be monitored by the project tracking system include the following:</p> <ul style="list-style-type: none">• Estimation activities• Scheduling• Cost control and budget management• Resource allocation• Quality management• Risk management• Change control• Decision-making managing <p>MDOT SHA will recruit the assistance of a business analyst to document MDOT SHA's existing project delivery workflows in the management of construction projects, and identify data gaps or redundancies, and establish a clear set of system requirements for the project tracking system. The scope of this Request for Proposal is to research the processes and systems used by other State DOTs. The project Principal Investigator will work closely with the business analyst to formulate survey questions, conduct a web survey, and gather current practices from other State DOTs to support the development of the project tracking system. Telephone follow-ups (or virtual meetings) will be needed if similar systems are identified through the survey.</p> <p>We expect the current practices gathering task to be completed within three to six months. A phase 2 project to conduct one or two case studies will also be supported if a successful project tracking system is identified.</p>

Please provide detailed information for all sections within **10 pages**. Proposals must be prepared in accordance with the Maryland Department of Transportation State Highway Administration's (MDOT SHA) [Guidelines for Preparing Research Proposals \(Guidelines\)](#).

Proposals will be evaluated based on the merit of the information contained in the proposal.

1. RESEARCH PROBLEM STATEMENT and BACKGROUND

[This section summarizes the proposers' understanding of the problem and provides background information, causes, and possible solutions. Proposers should not simply repeat the wording in the RFP.]

2. OBJECTIVES

[Proposers are expected to summarize the key items that need to be accomplished for the research to be successful and result in information/products that can be put into practice.]

3. RESEARCH PLAN

[This section should describe how the objectives will be achieved through a complete and detailed plan. Specifically, this should include a literature search and the other tasks to be performed, a detailed research approach, and anticipated results. The research plan should also include a description of how the research team will ensure regular communication with MDOT SHA's Research Division and technical office and describe any assistance that may be required from MDOT SHA and the timeframes in which this assistance is required. This includes items such as traffic control, drilling and sampling, access to MDOT SHA facilities and field sites, data requests, and meeting with MDOT SHA Divisions.]

The MDOT SHA is seeking the insight of RFP responders on how best to achieve the research objectives. Proposers are expected to describe a research effort that can realistically be accomplished as expeditiously as possible. Proposals must present the proposers' current thinking in sufficient detail to demonstrate their understanding of the problem and the soundness of their approach for conducting the required research.

Literature Review

[Conduct a literature review of the current state of the practice. After the award of the project, a more comprehensive literature review should be conducted. At the completion of this literature review, the Principal Investigator (PI) will make a presentation to *the research project panel* to discuss their findings and to discuss the appropriate research approach.]

Research Approach and Anticipated Results

[Clear description of how you will solve the problem and implement anticipated findings. Work may be divided into phases (e.g., Laboratory, Field, or Year 1, Year 2) as necessary to clarify tasks.]

4. IMPLEMENTATION AND TRAINING PLAN

[The PI must meet with *the research project panel* and other MDOT SHA Divisions to present the findings and as appropriate train these personnel in the use of the project results.] **The PI will develop an implementation plan** as per the *Guidelines* (Page 9).

5. DELIVERABLES:

[List of minimum deliverables necessary to complete the project, including delivery of MDOT SHA required reports described below. Deliverables on this table are not considered received by MDOT SHA until they are submitted to the Research Division.]

Products: Examples of products typically most appropriate as stand-alone items include guidebooks, training materials, devices, instruction manuals, and brochures.			
No.	Stand-Alone Product Description	Due Date (due at or before project termination)	Comments
Product 1			
Product 2			
Report Type	Report Description (Succinctly describe intended contents of each report)	Due Date	Comments
Quarterly Reports	Comprehensive and Detailed documentation of all work tasks and results	The 5 th of January, April, July, and October while the project is active.	Must be submitted to the Research Division on the provided template. <i>Information is expected to be complete. One to two sentences on progress, anticipated work, and results is not acceptable.</i>
Report on Literature Review	Summary of literature review findings and updated research approach.		The report should be reviewed and accepted by MDOT SHA before the next step of work plan starts. <i>The PI has the option of incorporating this report into one of the quarterly reports.</i>
Draft Report and Two-Page Summary	Draft summary of work performed, findings, and conclusions.		A draft final report is due 90 days prior to the project completion date. <i>The PI has the option of incorporating this report into one of the quarterly reports.</i>
Final Report	Detailed description of work performed, findings, and conclusions.		See MDOT SHA's Report Guidelines for standards and submittal requirements for the final report. Please make sure the report is fully edited and ready for publication.

6. PROJECT SCHEDULE:

[The PI must provide the anticipated research study duration based on the proposed tasks. Consideration should be given to potential impediments so that adjustments are incorporated in the schedule to minimize the need for time extensions. **A 3- to 6-month timeframe is preferred.** Please include sufficient time for report review and revision – a fully edited and ready-for-publication final report is expected upon project completion.]

Using the table provided in the **Guidelines**, provide a graphical representation of the scheduling of all tasks (including assistance needed from MDOT SHA), quarterly meetings, and deliverables on a monthly basis. Proposers should include achievable targets and keep in mind that the draft final report and two-page summary are due to MDOT SHA no later than 90 days prior to the project completion date. The format for the project schedule can be found in **Guidelines** Appendix B.

7. ITEMIZED BUDGET

[The PI must specify all potential fees that may be charged to MDOT SHA. MDOT SHA may reject any fees not identified, as part of the PI's proposal. *The PI is responsible for making sure that only MDOT SHA reimbursable costs are included.* Should a subcontract be included, the PI must complete at least 50% of the work (i.e., direct labor).] Include the detailed and fully itemized project costs by task. This should include pay rates and benefits for all personnel involved on the project. Proposers should not include any items that are not reimbursable by MDOT SHA (i.e. computer equipment, publication costs and travel to conferences) unless specified in the RFP. An example of an acceptable budget format can be found in **Guidelines** Appendix C.]

8. EQUIPMENT & FACILITIES

[This section should include a brief description of the facilities available to undertake the research and a list of the equipment on hand considered necessary to the project. Proposers must also specify any facilities or equipment considered necessary for completing the research but are not currently on hand. It is preferred that the equipment is borrowed, rented, or the work contracted to someone who has the equipment and the expertise to obtain valid results. Arrangements for borrowing, renting, or subcontracting work using necessary equipment must be identified. Letters of commitment should be included to indicate the availability of borrowed equipment and rental rates or subcontract costs should be included in the budget for borrowed or contracted work. In cases where it is deemed necessary to purchase equipment using project funds, proposers must be certain that the itemized cost information is included in the budget and that a justification is provided. Items of special equipment (any individual item costing \$500 or more) purchased with MDOT SHA funding are MDOT SHA property and will be delivered to MDOT SHA when the project is complete.]

9. RESEARCH TEAM

[This section should include a brief introduction of each member of the research team, **explain their role on the project**, and how their experience will benefit the research. It is understood that graduate and undergraduate students may not be identified at the time of proposal submission. However, the number of graduate and undergraduate students that will work on this project should be acknowledged in this section with a general description of what their role will be (e.g. what tasks they will work on).]

CONTACTS:

Questions on this topic **shall NOT** be directed to any project manager, technical liaison, or any other MDOT SHA employee. All questions are to be directed to research@mdot.maryland.gov.

DEADLINE

Proposals (one [1] unbound hard copy) must be received by the Research Division by 12:00PM (Noon) on Friday, **March 11th**. Please note that proposals cannot be hand delivered. Using a reliable delivery method is strongly encouraged. For this RFP only, we accept an electronic submission of **a PDF file** to research@mdot.maryland.gov. **Late submissions will NOT be accepted.**

Authorization to begin work: after March 15th, 2022.

PROPOSAL DELIVERY INSTRUCTIONS:

For all mail or delivery services, please use this address:

Hua Xiang
Office of Policy and Research
Maryland Department of Transportation
State Highway Administration
707 N. Calvert St, Mail Stop C-412
Baltimore, MD 21202