

Missouri Department of Transportation
Patrick K. McKenna, Director

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June 10, 2016

Dear Research Partner:

The Missouri Highways and Transportation Commission requests proposals from qualified organizations—namely private consultants, universities, and research organizations—to furnish professional services as described in the following request for proposal to be coordinated by the Research Unit of the Construction and Materials Division.

Please submit a proposal for project TR201618 entitled, “Concrete Pavement Repair Best Practices”. Your submittal must include a work plan, the proposed project team and its background, and any related projects now active or recently completed by your firm.

The selection committee will use Qualification Based Selection. A “not to exceed” budget amount is included in the RFP to assist with the required scope, but budgets are not to be included with the proposal submissions, and will not be presented to the selection committee.

Please deliver all proposals to the Construction and Materials Contract Administrator indicated in the attachment by **July 15, 2016**. More information about project contracting in general can be found at: www.modot.mo.gov/services/OR/orRFP.htm.

Sincerely,



Bill Stone
Research Administrator

This document contains information and requirements for only this RFP. A “Standard Requirements” document contains additional needs for all research proposals and contracting. Submitters should review both this document and the Standard Requirements document, available from the Construction and Materials Contract Administrator (identified at the end of this document) or:

www.modot.org/services/OR/orTemplates.htm

TR201618

Concrete Pavement Repair Best Practices

Background:

The Missouri DOT has a large inventory of Portland cement concrete (PCC) pavements at different levels of maturity. Many have reached conditions requiring restoration. The techniques Missouri uses for repairing PCC pavements include full depth and partial depth patching, dowel bar retrofitting, cross-stitching and diamond grinding. Some of these techniques are relatively new in Missouri and MoDOT construction personnel have little or no previous experience with inspecting them. The retirement of inspectors who were knowledgeable of more commonly used techniques has also exacerbated the situation. Finally, the overall reduction in staff per project has necessitated concentrating inspectors full time on roadway paving and plant inspections, rather than secondary work items, such as repairs.

Since the quality of these repairs is highly dependent upon construction practices, it is necessary to have (1) quality construction and material contracting methods and specifications and (2) have knowledgeable and capable staff to construct and inspect the work. Therefore, the purpose of this project is to identify specific best practices for the contracting, construction, and acceptance of concrete pavement repair techniques, including full and partial patching, dowel bar retrofitting, cross-stitching and diamond grinding.

Objectives:

The objectives of this project are:

- Identifying and organizing a panel of national experts to guide the selection of best construction practices for repairing concrete pavements.
- Conducting a national survey to gauge the construction experience of State DOTs with various concrete pavement repair techniques, with emphasis on (1) full and partial patching, (2) dowel bar retrofitting, (3) cross-stitching and (4) diamond grinding
- Select State DOTs that lead in best practices for construction and acceptance of concrete repair techniques
- Develop four technology briefs that in combination address construction and material specification requirements and acceptance procedures for all concrete repair techniques of interest to this investigation.

Project Requirements and Deliverables:

Task 1 - Work Plan

A work plan will be developed which details implementation of the following tasks as well as the resources and schedule required to carry them out.

Task 2 - Expert Panel Formation

The researcher shall identify seven to nine national experts from State DOTs, construction industry and academia to serve on a panel. The panel shall initially meet in person with the purpose of providing the researcher with key characteristics of best construction practices for repairing concrete pavements. The researcher shall use this information for Task 3.

Task 3 - National Survey

The researcher shall create a national survey form, based on guidance from the expert panel, to question State DOTs and contractors on their current construction practices for concrete pavement repairs. The panel shall review and provide suggestions for the draft survey via video or teleconference. The researcher shall incorporate necessary modifications and administer the survey. The results of the survey shall be collected and consolidated for review by the expert panel.

Task 4 - Lead State Selection

Based on the survey results, the researcher, in consultation with the expert panel via video or teleconference, shall select lead State DOTs to document their best practices for construction

inspection and acceptance of concrete pavement repair techniques. The best practices of the DOTs, with respective contractor engagement, shall address all repair techniques of interest to the investigation.

Task 5 - Case Study Developments

The researcher shall develop a case study document for one or more lead State's best practice related to construction and material specification requirements and acceptance procedures associated with a particular concrete pavement repair techniques. The information shall be gathered through direct collaboration with key personnel at each DOT and careful study of pertinent construction specifications, plans, and project histories. Each document shall be written in a technology brief format agreed upon by the expert panel. The sum of the information in the technology briefs shall satisfy all the concrete pavement repair techniques of interest to this investigation.

Task 6 - Tech Brief Reviews

The technical briefs shall be reviewed by the expert panel. Based on recommendations from the panel, the researcher shall make appropriate modifications to the documents in preparation for publishing.

Task 7 - Tech Brief Submittal

The final four technology briefs documenting best practices with accompanying appendices and example specifications, testing/measuring practices, and etc. shall be provided to the Missouri DOT and FHWA for their dissemination across the nation in an electronic format that is Section 508 compliant. The researcher shall also prepare and provide to Missouri DOT and FHWA a PowerPoint presentation presenting the finding of the research.

Project Schedule:

The following is an estimate of the project timeline or information on key dates within the project, presuming the project starts September 15, 2016. Proposals need to include a work plan with a proposed timeline. While alternative timelines will be considered, an extension is unlikely. The project timeline will be finalized during the contracting phase.

Last working day of each quarter: Quarterly updates on work accomplished during the quarter are due on or before the last working day of any March, June, September, and December during the course of the project.

On or before September 15, 2016: A kick off meeting with MoDOT will be scheduled to discuss project requirements and deliverables.

September 30, 2016: Finalized work plan and quarterly report due.

August 7, 2017: Draft Final Report due

September 15, 2017: Final Report due

October 15, 2017: Final Invoice due

(For report templates and a standard form see:
www.modot.org/services/OR/orTemplates.htm)

Special Notes:

Project budget is not to exceed \$170,000. A budget is not to be included in the proposal, but will be required for the contract and must be within this limit.

Reporting templates and standard report forms are available from the Construction and Materials Contract Administrator or the web site:
www.modot.org/services/OR/orTemplates.htm

RFP Requirements:

- Proposals must be no more than 10 pages with a font size no less than 11 points. This length limit does not include forms or resumes attached to the proposal.
- The “Standard Requirements” document provides further details and links to the required forms. It is available from the Construction and Materials Contract Administrator or at: www.modot.org/services/OR/orTemplates.htm
- Proposals will be evaluated by an agency and stakeholder team with knowledge and backgrounds in relevant areas for this project. Selection of the successful proposer will be based on the proposer’s demonstrated knowledge in the required areas, the merit of the proposed methods and approach in achieving the desired goals, the experience and qualifications of the team, the plan for ensuring implementation of results, and the adequacy and availability of team members to complete the work in a timely manner.

RFP Schedule:

The following timeline must be met for a proposal to be accepted.

Date:	Action:
June 10, 2016	MoDOT posts RFP to the website: www.modot.mo.gov/services/OR/orRFP.htm
June 24, 2016	Written comments or questions must be submitted to John Donahue at john.donahue@modot.mo.gov or 573-526-4334.
June 30, 2016	MoDOT will post written responses publicly on the website: www.modot.mo.gov/services/OR/orRFP.htm
July 15, 2016	Written proposals must be submitted to Construction and Materials Contract Administrator.
July 29, 2016	MoDOT will notify submitters about project selection, or if needed about interviews to finalize selection.

Contracting Requirements:

- The successful team will be required to complete additional documentation and enter into a contract such as a “Standard Research Agreement” or “Task Order.” Applicants should be aware of these additional needs so contracting can proceed in a timely manner.
- Standard contracts, forms, attachment templates and additional information are available from the Construction and Materials Contract Administrator or the web site:
www.modot.org/services/OR/orTemplates.htm

Contact Information:

Proposals must be either hand delivered by close of business; or faxed, emailed, or mailed by midnight (Central Standard Time) according to time stamp or postmark; on the due date indicated below. Please reference the project title since more than one RFP may be due at one time. **Electronic proposals are encouraged.** They may be faxed or emailed to the Research Administrator: William.Stone@modot.mo.gov
Fax: 573-526-4324

Proposal packages suitable for duplicating may be submitted by mail or hand delivery to:
Construction and Materials Research Administrator
Missouri Department of Transportation
1617 Missouri Blvd
PO Box 270
Jefferson City, MO 65109