



September 16, 2010

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 proposals to be coordinated by the Organizational Results (OR) unit.

Please submit a proposal for project TRyy1109 entitled, “Use of Coal Fly Ash and other waste products in soil Stabilization and Road Construction.” 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 organization. The project team must be led by a licensed professional engineer in the state of Missouri and the final report must be sealed, in accordance with the provisions of Chapter 327 RsMo.

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 OR Contract Administrator indicated in the attachment by October 18, 2010. More information about project contracting in general can be found at: www.modot.mo.gov/services/OR/orRFP.htm.

Sincerely,

Mara Campbell
Organizational Results Director

Attachment

Request For Proposals (RFP)
Project Specific Requirements:

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 OR Contract Administrator (identified at the end of this document) or: www.modot.org/services/OR/orTemplates.htm

TRyy1109
**Use of Coal Fly Ash and other waste products in Soil Stabilization
and Road Construction – Including Non-Destructive Testing of
Roadway**

Project budget: Not to exceed \$120,000.

Background:

Beneficial use of coal fly ash has an overall economic and environmental benefit. Fossil Fuel power plants produce large quantity of coal fly ash each year. These fly ashes are mostly disposed of in landfills and ponds. Nationwide, only approximately 40% of coal fly ashes are beneficially used. The use of fly ash in road base and subbase applications can provide better properties and performance, and is superior to it being otherwise disposed and becoming a possible environmental liability. MoDOT is also looking for Non-Destructive Testing (NDT) methods to evaluate the effectiveness of these materials in strengthening the road base which can also hopefully enhance inspection of other areas of roadwork.

Objectives:

In addition to Coal Fly Ash, other waste products such as Lime Kiln Dust (LKD) produced from making Quick Lime have also been used for soil stabilization. MoDOT is interested in using these waste products and any others to be identified to reduce the cost while enhancing road construction.

Besides promoting the use of these waste products to improve roadways a second goal of the proposed research is to develop innovative non-destructive testing technologies to evaluate the physical and engineering properties (including spectral analysis of surface waves (SASW), ultrasonic pulse velocity, modulus, thermal conductivity, density, and moisture content of fly ash stabilized subgrade in road construction.

Project Requirements and Deliverables:

A guideline of use of fly ash in Missouri will be required as the main deliverable of this study. A recommendation of testing requirements and the best tests to use will be the second deliverable required.

A final report summarizing the completion of the following tasks shall be provided:

Task 1: Literature Review – an investigation summary of current state-of-the-art information along with a list of references found and used for this study.

Task 2: Field and lab testing (waste products) – performance results from lab sample and in-service field section testing for various waste product-modified materials.

Task 3: Field and lab testing (NDT) – precision and bias results for NDT equipment used to measure performance parameters of waste product-modified materials.

Task 4: Recommendations for best methods and practices of selecting waste products for the modification of roadway materials.

Task 5: Recommendations for using NDT equipment for performance acceptance of waste-product modified materials.

Project Schedule:

The following is an estimate of the project timeline or information on key dates within the project, presuming the project starts **November 30, 2010**. 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.

Monthly: E-mail and phone communications with MoDOT contacts are required to provide on-going updates of progress.

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 December, March, June and September during the course of the project.

January 3, 2011: A summary of a literature search on past use and studies done on use of waste products for use as soil stabilization should be submitted to MoDOT.

September 30, 2011: A draft final report is required. One or more revisions should be anticipated. A final report must have the standard documentation form completed and should have sections consistent with the typical research report. (For report templates and a standard form see: www.modot.org/services/OR/orTemplates.htm.)

November 4, 2011: Review of drafts will be completed. The time between review and next due date is to allow for final changes and formatting.

November 18, 2011: A completed final report is due. Additional time between this due date and the end of the contract is to complete any final corrections. Thus, it is important to complete the finals by this due date instead of by the end of the contract.

November 29, 2011: A presentation is required. The contractor will present the results, recommendations, and implementation ideas to MoDOT and other stakeholders. Contractor will coordinate location, date, and meeting fees with MoDOT. For stakeholder and agency participants, any travel and lodging fees are to be covered by individual attendees or their firms. MoDOT and stakeholders will provide feedback to the contractor, especially related to implementation.

December 30, 2011: Final invoice is due.

December 30, 2011: Contract ends.

Special Notes:

Project budget is not to exceed \$120,000. 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 OR Contract Administrator or the web site: www.modot.org/services/OR/orTemplates.htm

RFP Requirements:

- Proposals must be no more than 12 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 OR 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:
September 16, 2010	MoDOT posts RFP to the website: www.modot.mo.gov/services/OR/orRFP.htm
September 24, 2010	Written comments or questions must be submitted to OR Contract Administrator.
October 6, 2010	MoDOT will post written responses publicly on the website: www.modot.mo.gov/services/OR/orRFP.htm
October 18, 2010	Written proposals must be submitted to OR Contract Administrator.
October 29, 2010	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 OR 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 OR Contract Administrator:

Karmen.Stockman@modot.mo.gov

Fax: 573 526-4324

Proposal packages suitable for duplicating may be submitted by mail or hand delivery to:

Organizational Results Contract Administrator

Missouri Department of Transportation

2217 St. Mary’s Boulevard, West

PO Box 270

Jefferson City, MO 65109