**Request for Proposals**

**(MTC FY 2015)**



**Midwest Transportation Center**

**United States Department of Transportation**

**Region VII University Transportation Center**

**Fiscal Year 2015 Research Grants**

Table of Contents

[Introduction and Timelines 2](#_Toc398635818)

[Background 2](#_Toc398635819)

[Program Goal 2](#_Toc398635820)

[Schedule 2](#_Toc398635821)

[Proposal Information 3](#_Toc398635822)

[Eligibility Information 3](#_Toc398635823)

[Focus Areas 3](#_Toc398635824)

[Proposal Submission 4](#_Toc398635825)

[Proposal Content 4](#_Toc398635826)

[Project Duration 5](#_Toc398635827)

[MTC Research Policies 5](#_Toc398635828)

[Funding 5](#_Toc398635829)

[Funding Source & Funding Limitations 5](#_Toc398635830)

[Matching Requirements 6](#_Toc398635831)

[Proposal Review & Selection 6](#_Toc398635832)

[Review Process 6](#_Toc398635833)

[Selection Criteria 6](#_Toc398635834)

[Reporting Requirements 7](#_Toc398635835)

[Progress Reports 7](#_Toc398635836)

[Papers and Reports Produced with MTC Support 7](#_Toc398635837)

[Reporting Information for Student Involvement 7](#_Toc398635838)

[Performance Indicators for MTC (To Be Completed by Semester) 7](#_Toc398635839)

## Introduction and Timelines

### Background

The **Midwest Transportation Center** (MTC) is a consortium of six universities in Region 7 (Iowa,   
Kansas, Missouri, and Nebraska). The lead organization is the Institute for Transportation (InTrans) at Iowa State University (ISU) in Ames, Iowa. Partner universities are the University of Missouri-Columbia (MU) in Columbia, Missouri; University of Missouri-St. Louis (UMSL) in St. Louis, Missouri; and three universities new to the UTC program: Wichita State University (WSU) in Wichita, Kansas; Creighton University (CU) in Omaha, Nebraska; and Harris-Stowe State University (HSSU) in St. Louis, Missouri. Seward County Community College (SCCC) in Liberal, Kansas, is a collaborator.

**The site directors are as follows:**

|  |  |  |
| --- | --- | --- |
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### Program Goal

MTC*’*s theme is ***Data Driven Performance Measures for Enhanced Infrastructure Condition, Safety, and Project Delivery*** and will address related regional issues through a strategically focused program that is synergistic with U.S. Department of Transportation (U.S. DOT) priorities and MAP-21 goals and objectives, with **State of Good Repair** as the primary goal.

The MTC, through research activities, wants to advance U.S. technology and expertise in the many disciplines comprising transportation through the mechanisms of education, research, and technology transfer at university-based centers of excellence.

### Schedule

The RFP will be released on Friday, September 26, 2014. **Proposals are due Monday, November 10, 2014, 5:00 PM.** The proposals will be evaluated by the MTC Executive Committee, and it is anticipated that the final funding decisions will be emailed to the principal investigators (PIs) by approximately January 1, 2015. The expected start date for these projects is February 1, 2015. **InTrans will be hosting an open house on October 9, 2014, 9:00 AM – 11:00 AM in the Video Conference Room, 4040A to discuss and disseminate information regarding MTC research.**

## Proposal Information

### Eligibility Information

Research project awards will be made to individuals or teams of researchers. The principal investigator must be a current ISU faculty member or research staff member. Principal investigators may collaborate or team with others outside of Iowa State University.

### Focus Areas

MTC’s theme is Data Driven Performance Measures for Enhanced Infrastructure Condition, Safety, and Project Delivery and will address related regional issues through a strategically focused program that is synergistic with U.S. DOT priorities and MAP-21 goals and objectives, with State of Good Repair as the primary goal. The focus areas for the MTC research projects are as follows:

1. *Ensure efficient use of funds by building on existing programs, avoiding duplication, leveraging existing resources, and developing creative cooperative activities with industry.*
2. *Develop products that are useful and relevant to stakeholders, including regional, national, state, and local transportation agencies, as well as industry and other researchers in the areas of safety, asset management, performance measures, and infrastructure evaluation.*
3. *Provide leadership in the next generation of technology transfer, beginning with the research itself.*
4. *Develop the next generation of transportation professionals and provide opportunities for current professionals.*
5. *Provide leadership opportunities for students and young professionals.*
6. *Recruit and retain a diverse workforce.*

Researchers will be required to include a discussion of the pertinent completed research and related research in progress when developing their proposals. The TRB Research Needs Statements, TRIS, and Research in Progress (RiP) database should be queried to find this information if not already known to the researcher.

These databases may be found at:

* TRB Research Needs Statements Database: <http://rns.trb.org/>
* TRB RiP Library: <http://www.usc.edu/libraries/databases/records/database.php?db=1A5>
* TRIS Library: <http://ntlsearch.bts.gov/repository/index.do>

*It is strongly recommended that principal investigators coordinate with their state department of transportation representatives or other organizations that will benefit from the research findings before summiting the proposal. Multi-university proposals and project proposals that encompass multiple strategic goals of U.S. DOT mentioned earlier are also encouraged.*

### Proposal Submission

Please email your proposals to Judy Thomas at [jathomas@iastate.edu](mailto:jathomas@iastate.edu).

### Proposal Content

Once the submission process is started, the following information will be required:

1. PROJECT TITLE (Attachment A)
2. START & END DATE (Attachment A)
3. PI & co-PI(s) (Attachment A)
4. PROPOSAL ABSTRACT (Not to exceed 300 words) (Attachment A)
5. DESCRIPTION OF RESEARCH PROJECT (This section not to exceed 6 pages double spaced) (Attachment A)

E.1 PROBLEM STATEMENT

E.2 RELEVANCE TO MTC THEME AND THEMATIC THRUST AREAS

E.3 RESEARCH APPROACH AND METHODS

E.4 DESCRIPTION OF TASKS TO BE COMPLETED IN RESEARCH PROJECT

E.5 EXPECTED RESULTS AND PRODUCTS

E.6 TECHNOLOGY TRANSFER IMPLEMENTATION PLAN

E.7 TIMELINE (GANTT CHART)

F. DISCUSSION OF PERTINENT COMPLETED RESEARCH AND RELATED RESEARCH IN PROGRESS (Attachment A)

G. KEY WORDS (Attachment A)

H. LITERATURE CITED (Attachment A)

I. STAFFING PLAN (Should correspond with Attachment A and Attachment B)

J. BUDGET JUSTIFICATION & MATCHING FUNDS DETAILED INFORMATION (Attachment A)

K. TOTAL FEDERAL FUNDS REQUESTED (including F&A) - Amount and Funding Source

(Attachment B)

L. TOTAL MATCHING FUNDS (including F&A) - Amount and Funding Source (Attachments B & D)

M. NAME & CONTACT INFORMATION OF PERSON AUTHORIZING MATCHING FUNDS (Attachment D)

Once the above information is gathered, the following files will need to be emailed to complete the process:

1. Attachment A (detailed research proposal description)
2. Attachment B (budget)
3. Attachment C (two-page resume for PIs and co-PIs)
4. Attachment D (Letter of commitment for matching funds)

Templates for detailed research proposal description (Attachment A, Word Document), budget (Attachment B, Excel Document), resume template (Attachment C, Word Document) and matching funds commitment (Attachment D, Word Document) can be downloaded from the website (http://www.intrans.iastate.edu/mtc/). Please do not change the formatting of the attachment files. Please name files using three to four words of the project title, the PI’s last name, and the letter of the attachment (A, B, C, or D).

### Project Duration

Projects can be proposed with a two-year time frame. It is anticipated that the final selected research projects will receive the contract with authorization to proceed by February 1, 2015 or earlier. “No-cost” extensions may be requested and are approved at the discretion of the MTC Executive Committee. Please note that if a two-year project time frame is selected then, because of the length of the MTC award, there will be no extensions given.

### MTC Research Policies

Researchers supported by the MTC are expected to become active members in the MTC research community. In accepting an MTC grant, recipients commit themselves to provide copies of all research publications, including journal articles, to the MTC staff. Four times a year, researchers must provide a brief synopsis of progress on their grants, for inclusion in required reports to sponsors. We also request that grant recipients submit brief accounts of significant research findings for publication. From time to time, we will call upon grant recipients (both faculty and graduate students) to participate in MTC-sponsored conferences and symposia, including the annual conference sponsored by MTC, and to serve as reviewers for graduate student applications and MTC research proposals, as applicable.

Researchers are expected to acknowledge the support provided by the MTC in all presentations and publications resulting from the research. It is also expected that the MTC logo will be included on all presentations and publications. Research results may not be provided to other funding agencies or firms without full disclosure of MTC funding.

Graduate student contributions to research projects must be acknowledged in any publication resulting from research using MTC funds. Acknowledgement is generally expected to take the form of co-authorship of reports and articles, but could be by footnote depending upon the nature and extent of student contributions. For further information, please contact the MTC director.

## Funding

### Funding Source & Funding Limitations

Funding is provided by the U.S. DOT, Research and Innovation Technology Administration. The MTC Program does emphasize commitment to education; therefore, all research proposals should include students on projects.

The MTC budget should not exceed $100,000. The final approved budgets will depend upon the number of proposals submitted and accepted, based upon the amount and type of matching dollars, and will depend upon the total funding requested from all participants.

The principal investigator of the project will be required to submit a presentation of the results and lead an online webinar upon completion of the final research report. The MTC will provide the online software and facilitate the advertising and promotion of the webinar with the principal investigator. Expenses associated with the webinar should be included in the research budget.

The IDC rate for the MTC federal portion is contracted at 50%, no exceptions to this rate. Permanent equipment and foreign travel are not allowable.

The MTC federal funding allows tuition charges. Any graduate student salaries budgeted and charged to the federal funding will be assessed that portion of the tuition. Please remember, for your matching projects, if those sponsors do not allow tuition and the principal investigator works for a department within the College of Engineering, then the tuition which should be charged on those projects, will be paid and cost shared by the College of Engineering giving that the student time was charged to the matching project.

### Matching Requirements

All MTC research projects are subject to non-federal matching funds. A minimum of a 1:1 match is required. As established in federal grant regulations issued by the Office of Management and Budget (OMB), matching funds may be cash or in-kind and must, among other stated OMB requirements, be used to accomplish program objectives and the purpose of this grant and be fully documented and fully accounted for in the Grantee’s records as required in 49 CFR 19.51. Preference will be given to projects with more than a 1:1 match or those with hard cash match proposed.

The matching funds letter of commitment must include the following information: amount of matching funds, source of matching funds, authorizing party of matching funds, date funds are available, and name and contact information of the sponsored programs official to contact regarding matching funds.

## Proposal Review & Selection

### Review Process

The proposals that are received in response will be evaluated through an external peer review process. Once the reviews are complete, the MTC Executive Committee will meet to select the research projects.

Each proposal will be reviewed with respect to the selection criteria described in the following section, “Selection Criteria”.

Reviewers will be asked to rate each proposal. In view of the diversity of potential topics and the diverse backgrounds of the reviewers, it will be important for the proposal to make its case in terms that can be understood by non-specialists.

Some proposals may be funded at a reduced level, or funding may be contingent on a revision to the proposal. Review information will be provided to the applicants to make changes if necessary.

MTC will be building a list of reviewers with expertise in a variety of fields related to the center’s theme and will draw upon this list in selecting reviewers.

### Selection Criteria

This selection criteria will include the following:

1. Relevance to U.S. DOT’s strategic goals of enhancing safety, improving the state of good repair, improving economic competitiveness, and improving environmental sustainability of the U.S. surface transportation system
2. External peer review recommendations
3. Balance between
   1. Match requirements,
   2. Thematic areas,
   3. Transportation modes, and
   4. Applied and advanced research
4. Technical soundness and achievability in proposed time frame
5. The documented and established expertise of the principal investigator and researchers applicable to the proposed project, the ability of the researchers to devote adequate time to complete the work on schedule, and past performance of researchers on MTC projects, including timely submittal of final reports
6. Adequacy of proposed technology transfer
7. A significant commitment to graduate student involvement
8. Multi-university and multi-disciplinary collaborative efforts

## Reporting Requirements

### Progress Reports

The PI agrees to submit quarterly progress reports on the MTC website or to Judy Thomas each quarter (15th day of the month following the end of each quarter) for the project until the project is completed (dates may change depending on the timing of the funding cycle).

The PI also agrees to submit a final summary report and technical brief no later than 60 days following the completion of the research. Please see the MTC Final Report Template Guidelines for details.

### Papers and Reports Produced with MTC Support

The PI agrees to provide the MTC with copies of all papers and reports produced with MTC funding, including items based on the work that are completed after the grant has ended.

### Reporting Information for Student Involvement

The PI agrees to provide information on all students engaged in MTC sponsored projects, whether funded or unfunded.

The MTC will provide information on the required format for progress reports and final summary reports on its web page and will send reminders to PIs prior to report deadlines. All reports and publications must be submitted before subsequent MTC grants will be awarded to the PI.

### Performance Indicators for MTC (To Be Completed by Semester)

Please review the performance indicators on the following page. This information will be collected each semester on April 1st, August 1st, and November 1st.

Performance Indicators for MTC

To Be Completed Each Semester on April 1st, August 1st, and November 1st

Please provide the following information:

|  |  |
| --- | --- |
| **Instructions:** The use of this form is mandatory for reporting MTC performance indicators. In the event that a consortium member participates in more than one MTC project, include only the metrics corresponding with your grant and reporting period. | |
| **PI Name:** |  |
| **University:** | Iowa State University |
| **Reporting Period:** |  |
|  |  |
| **Performance Indicators** | **Consortium** |
| **1. Number of transportation-related courses offered during the reporting period that were taught by faculty and/or teaching assistants who are associated with the MTC** |  |
| Master’s-level programs |  |
| Doctoral-level programs |  |
| **2. Number of students participating in transportation research projects funded by this grant** |  |
| Master’s-level programs |  |
| Doctoral-level programs |  |
| **3. Number of transportation-related advanced degree programs that utilize grant funds to support graduate students** |  |
| Master’s-level programs |  |
| Doctoral-level programs |  |
| **4. Number of graduate students supported by this grant** |  |
| Master’s-level students |  |
| Doctoral-level students |  |
| **5. Number of students supported by this grant who received degrees** |  |
| Doctoral-level degrees |  |