Request for Proposals

DUE DATE EXTENDED TO FEBRUARY 4, 2020

Mid-America Transportation Center
United States Department of Transportation
Region VII University Transportation Center

December 11, 2019
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INTRODUCTION AND TIMELINES

BACKGROUND

The Mid-America Transportation Center (MATC) was designated by the United States Department of Transportation as the Region VII University Transportation Center (UTC) in 2006. MATC is a consortium comprised of the University of Nebraska Lincoln, University of Kansas, Missouri University of Science and Technology, University of Iowa, Nebraska Indian Community College, and Lincoln University- Jefferson City, MO. MATC’s partners include the Iowa Department of Transportation (IaDOT), the Kansas Department of Transportation (KDOT), Missouri Department of Transportation (MoDOT), the Nebraska Department of Transportation (NDOT), the United States Department of Transportation (USDOT), and various private and public sector transportation organizations. The MATC research program is designed to address the United States Department of Transportation strategic objective of safety.

PROGRAM GOAL

To achieve the maximum value as the USDOT Region VII UTC designee, MATC’s vision is to become a nationally recognized center of transportation excellence focused on developing new knowledge, innovative solutions, and the next generation of transportation professionals necessary to sustain the U.S. transportation system in a manner that is safer, more effective, more efficient, environmentally friendly, and sustainable.

MATC’s research goal is to make fundamental advancements in basic and theoretical research related to improving the safety of and minimizing the risk to the U.S. surface transportation system. Transportation agencies will then use these findings to enhance accessibility and mobility for all components of the multi-modal surface transportation system. The proposals that are selected as part of this RFP process will form the major component of the MATC research program.

SCHEDULE

Submitted proposals will be sent to external reviewers (consisting of USDOT personnel, state DOT personnel, and private and public sector national experts) within two weeks of their receipt, with reviews due to the Mid-America Transportation Center approximately four weeks later. MATC staff will review budgets of proposals recommended for funding for compliance with federal guidelines and USDOT rules and will request budget adjustments if necessary. The external reviews will be evaluated by the MATC Executive Committee and it is anticipated that the final funding decisions will be made by March 1, 2020. The MATC Program Coordinator will then inform all PIs of the status of their proposals via the email address submitted with the proposal.

The projects selected as part of this solicitation will begin March 1, 2020 and end December, 2021.
PROJECT TIME TABLE

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Date Requested</th>
<th>Date Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Research Proposals</td>
<td>December 10, 2019</td>
<td>February 4, 2020</td>
</tr>
</tbody>
</table>

PROPOSAL

ELIGIBILITY INFORMATION

Research project awards will be made to individuals or teams of researchers.

The Principal Investigator must be a current faculty member or full-time research staff at the University of Nebraska-Lincoln. Note that each consortium member conducts their own project selection procedure and that this RFP is limited to UNL faculty. Other UNL researchers, including visiting scholars, are normally not eligible for funding through the Mid-America Transportation Center, although exceptions may be approved if special circumstances warranting the exception are fully explained in the proposal. For questions, please contact Ms. Janet Renoe, MATC Program Coordinator, at jrenoe2@unl.edu or (402) 472-1932.

No more than two (2) proposals should be submitted by the same PI (or Co-PI).

FOCUS AREAS

The Mid-America Transportation Center is seeking research proposals which address the US DOT’s Strategic Goal of Promoting Safety.

The MATC research portfolio focuses on hazardous goods safety through the lens of two primary goals. Firstly, MATC will reduce and/or eliminate the number of incidents involving hazardous goods. Secondly, MATC will reduce and/or eliminate the negative effects of crashes. Reduction of risk related to hazardous material transport, reducing crashes on the multimodal surface transportation system, improving emergency response to unexpected events, and increasing safety for all users in all valid research areas.

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 know to the researcher.

As of Tuesday, December 10, 2019 these databases may be found at:
- TRB Research Needs Statements Database: https://rns.trb.org/
- TRB RiP Library: http://rip.trb.org/

It is strongly recommended that the Principal Investigators coordinate with Nebraska Department of Transportation representatives of other transportation-related organizations that will benefit from the research findings before submitting the proposal.
The projects may be stand alone or complimentary to existing MATC research projects. Drs. Faller, Linzell, Stolle, and Rasmussen have all agreed to discuss potential collaborative work on their existing MATC projects. Summaries of their ongoing projects can be found at https://matc.unl.edu/research/research_search.php.

PROPOSAL SUBMISSION

Proposals submission will only be accepted through on the MATC website; http://matc.unl.edu/pss/. Detailed submission instructions can be downloaded from https://matc.unl.edu/pss/home.php, found under the ‘Links & Resources’ heading.

The following sections will provide an overview of the content required of all proposals.

PROPOSAL CONTENT

Once the submission process is started the following information will be required.

On the MATC RFP website you will need to enter in the following data:

- Project Title
- Start Date & End Date
- Principal Investigator and Co-Principal Investigator(s) Name(s) and Contact Information
- Proposal Abstract – 300 words max.
- Relationship to MATC Research Portfolio
- Project Monitor (cannot be a UNL employee; should be a professional from the public or private sector who has expertise in the technical aspects of the transportation topic being researched)
- Total Federal Funds Requested (Including F&A) – Amount and Funding Source
- Total Matching Funds (Including F&A) – Amount and Funding Source
- Name & Contact Information of Person Authorizing Matching Funds

Once the above information is inputted on the website, the following electronic PDF files will need to be uploaded to complete the process. These include:

1) Attachment A (detailed research proposal description);
2) Attachment B (budget);
3) 2-page biosketch (for all PIs and co-PI’s); and
4) Letter of commitment for matching funds.

Templates for the detailed research proposal description (Attachment A – Word Document) and budget (Attachment B – Excel Document) can be downloaded from https://matc.unl.edu/pss/, found under the ‘Resources’ heading.

Do not change the formatting of the attachment files. Please save an upload as individual PDF documents.

Please name files using 3-4 words of the project title, the PI's last name, and the letter A for Attachment A and the letter B for Attachment B.

All biosketches must be in the National Science Foundation (NSF) format. These guidelines can be found on the NSF website regarding the biographical sketch(es) section (f): http://www.nsf.gov/pubs/policydocs/pappguide/nsf08_1/gpg_2.jsp#IIC2f.
1:1 match is required for every proposal. 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, (beginning and end date), and name and contact information of sponsored programs official to contact regarding matching funds.

Note: UNL PIs DO NOT need to route these proposals through the NUgrant system. If there are any issues related to submitting a proposal, please contact Ms. Janet Renoe, MATC Program Coordinator, at jrenoe2@unl.edu or (402) 472-1932.

PROJECT DURATION

Projects can be proposed with a twelve or eighteen month time frame. It is anticipated that the final selected research projects will receive the contract with authorization to proceed no later than March 1, 2020. A one-time, 6 month no-cost extension may be requested for projects awarded on a 12 month time frame, and are approved at the discretion of the MATC Executive Committee. Please note that if an 18 month project time frame was awarded, a no-cost extension request cannot be considered. In addition, it is anticipated that the 12 month and 18 month projects will be awarded similar award amounts. The final date expenditures (including salary) may be posted for the research projects awarded as part of this solicitation is December 31, 2021.

MATC RESEARCH POLICIES

All principal investigators who submit MATC research proposals must agree to follow all requirements and guidelines in the document titled “General Provisions of Grants for 2016 and 2018 University Transportation Centers – Version 1.3 (June 2018”. This document can be accessed at: https://www.transportation.gov/utc/FAST-Act-2016-general-provisions-grants-utcs.

Principal investigators must also agree to provide the MATC Program Coordinator all information necessary to fulfill the requirements listed in document titled “Grant Deliverables and Reporting Requirements for 2016 and 2018 University Transportation Centers – Version 1.4 (June 2018). This document can be accessed at: https://www.transportation.gov/sites/dot.gov/files/docs/utc/261051/fast-act-grantdeliverablesandreporting-june-2018-version-14.pdf

In addition, Principal investigators must agree to provide the information required to fulfill MATC’s additional reporting requirements which can be accessed on the proposal site; http://matc.unl.edu/pss/.

Researchers supported by the Mid-America Transportation Center (MATC) are expected to become active members in the Mid-America Transportation Center research community. In accepting a MATC grant, recipients commit themselves to provide copies of all research publications, including journal articles, to the MATC 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 MATC-sponsored conferences and symposia, including the annual conference sponsored by MATC, and to
serve as reviewers for graduate student applications and UTC research proposals, as applicable.

Researchers are expected to acknowledge the support provided by the MATC in all presentations and publications resulting from the research. It is also expected that the MATC 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 MATC funding. In turn, MATC will not knowingly support research that is being funded or proposed for funding in whole or in part by other agencies or organizations without a specific agreement for joint funding. Failure to disclose other proposed or in-hand research funding for a project substantially similar to a MATC project is grounds for termination of a MATC grant.

Graduate student contributions to research projects must be acknowledged in any publication resulting from research using MATC funds. Acknowledgment 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 MATC Director.

FUNDING

FUNDING SOURCE

Funding is provided by the United States Department of Transportation, Research and Innovation Technology Administration.

MATCHING REQUIREMENTS

All MATC research projects are subject to non-federal matching funds, which must be provided in accordance with Section E.III Matching Funds found in the document titled “General Provisions of Grants for 2016 and 2018 University Transportation Centers – Version 1.3 (June 2018)”. This may be accessed at: https://www.transportation.gov/utc/FAST-Act-2016-general-provisions-grants-utcs.

Note: Because the education and technology transfer aspects of the MATC mission typically will not have matching funds it is generally expected that the selected research projects will have more than 1:1 match.

FUNDING LIMITATIONS

Total budgets (including direct and indirect costs) should be approximately $100,000; smaller requests are encouraged and larger requests are allowed if clearly justified in the proposal or multiple institutions are involved in the proposal. The funding for the research program is contingent upon available funding.

To emphasize the Mid-America Transportation Center’s commitment to education, all research proposals must include funding for at least one graduate student researcher for at least .49 FTE during the academic year and summer.
Research proposals may include salary for tenured faculty for one month and assistant professors and researchers for up to two months. Funding support for more than one student is encouraged in the proposal; faculty members who request extra student support will generally be expected to reduce their summer salary to half a month or less (one month or less for assistant professors and researchers).

The primary 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. This is required by all projects funded by MATC to support the USDOT technology transfer requirement of our award. MATC will provide the online software and facilitate the advertising and promotion of the webinar with the primary investigator. Expenses associated with the webinar should not be included in the research budget.

Permanent equipment and foreign travel is not allowable. For additional information see the document titled “General Provisions of Grants for 2016 and 2018 University Transportation Centers – Version 1.3 (June 2018)”. This may be accessed at: https://www.transportation.gov/utc/FAST-Act-2016-general-provisions-grants-utcs which was described in the MATC Research Policies section.

PROPOSAL REVIEW & SELECTION

REVIEW PROCESS

The MATC Review process is illustrated below in Figure 1. The proposals that are received in response will be evaluated through a peer-review process, where at least one of the reviewers for each proposal is a USDOT employee. Once the reviews are complete, the MATC Executive Committee will meet to select the research projects.

Figure 1 – MATC Proposal Review Process
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 on a score of one (being excellent) to five (being poor). 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. The external review comments will be provided to the applicant at the same time that awards are announced.

MATC 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. In addition, each applicant is required to submit names of four (4) potential external reviewers submitted on the website. Of the four potential external reviewers, the PI must recommend at least one (1) member of the USDOT and one (1) member from the state DOT personnel in Region VII. Reviewers cannot come from the University system your academic appointment is affiliated with. NSF conflict of interest guidelines (found at https://www.nsf.gov/policies/conflicts.jsp must be followed when suggesting reviewers.

SELECTION CRITERIA

The selection criteria will include:

<table>
<thead>
<tr>
<th>MATC Research Selection Criteria</th>
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<tbody>
<tr>
<td>1. Relevance to US DOT modal agencies Strategic Plans, safety-related research priorities identified in the FAST Act, and the MATC research portfolio (visit <a href="https://matc.unl.edu/research/research_search.php">https://matc.unl.edu/research/research_search.php</a> to review previously funded projects).</td>
</tr>
<tr>
<td>2. External peer-review recommendations.</td>
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<td>3. Balance among match, multi-modal initiatives, and Region 7 stakeholder needs.</td>
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<td>4. Technical soundness and feasibility during the proposed project period.</td>
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<tr>
<td>5. Documented and established expertise of the project team applicable to the proposed project, and the ability to devote adequate time to complete the work on schedule.</td>
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<tr>
<td>6. Adequacy of the proposed technology transfer.</td>
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<tr>
<td>7. A significant commitment to graduate student involvement.</td>
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</tbody>
</table>

The MATC Executive Committee members will review the combined rankings and vote to select the research proposals that will be funded based on the criteria listed above. The committee will also assign funding of each selected project based on the amount requested by the researcher and available funding.

POST AWARD REQUIREMENTS

MATC must submit a semi-annual report and an annual report to the USDOT, Research and Innovation Technology Administration each year. Each report includes a status report on all research projects. The final annual report also must provide data on all students...
funded by MATC, and all publications stemming from MATC research. Accordingly, in accepting a MATC grant, the PI agrees to the following:

DATA MANAGEMENT PLAN

As a PI on a MATC research project, you will be required to develop and submit for approval, a data management plan (DMP) for your project in accordance with USDOT's UTC requirements and the USDOT Public Access Plan.

Please note that MATC has developed a Center DMP. Your project DMP will be a subset of the MATC DMP. A template will be provided at the time of award.

TECHNOLOGY TRANSFER PLAN

As a PI on a MATC research project, you will be required to develop and submit for approval, a technology transfer plan (T2) for your project in accordance with USDOT's UTC requirements.

Please note that MATC has developed a Center T2 plan. Your project T2 plan will be a submit of the MATC T2 plan. A template will be provided at the time of award.

PROGRESS REPORTS

The PI agrees to submit brief progress reports on the MATC website 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 30 days following the completion of the research. Please see the attached MATC Final Report Template Guidelines for details.

Failure to submit quarterly progress reports and/or answer any grant-related questions by the MATC Director, MATC Associate Director, or Program Coordinator can result a hold being placed on the account preventing any financial activity or sub-awards being withheld.

FINANCIAL REPORTING

With each quarterly report each PI’s may be requested to provide detailed supporting financial information and documentation for the project.

Failure to provide requested information regarding grant-related transactions requested by the MATC Director, MATC Associate Director, or Program Coordinator can result in disallowed expenses.

At no time should the project be overspent. Should a PI have a Phase II project approved, unspent funding from Phase I can be carried forward. No deficit can be carried forward from one phase to another.
Papers and Reports Produced with MATC Support: The PI agrees to provide MATC with copies of all papers and reports produced with MATC funding, including items based on the work that are completed after the grant has ended.

Student Information: The PI agrees to provide information on all students engaged on MATC-sponsored projects, whether funded or unfunded.

MATC 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 MATC grants will be awarded to the PI.

REPORTING DEADLINES

<table>
<thead>
<tr>
<th>Report</th>
<th>Deadline (Date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signed Statement of Agreement (Need from both PI &amp; CoPI Universities)</td>
<td>March 1, 2020</td>
</tr>
<tr>
<td>Quarterly Progress &amp; Financial Report 1</td>
<td>July 30, 2020</td>
</tr>
<tr>
<td>Quarterly Progress &amp; Financial Report 2</td>
<td>October 30, 2020</td>
</tr>
<tr>
<td>Quarterly Progress &amp; Financial Report 4</td>
<td>April 30, 2021</td>
</tr>
<tr>
<td>Research Assistant Student Information</td>
<td>Required Updated Quarterly</td>
</tr>
<tr>
<td>Request for No-Cost Extension</td>
<td>60 Days Prior to End Date of Project</td>
</tr>
<tr>
<td>Draft Final Report</td>
<td>10 Days After End Date of Project</td>
</tr>
<tr>
<td>Revised Final Report*</td>
<td>30 Days After End Date of Project</td>
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</tbody>
</table>

* USDOT requires that all final research reports are due printed, mailed, and posted on the MATC website within 60 days after project completion.

CONTACT INFORMATION

If you have any questions or concerns regarding the RFP or website, please contact Ms. Janet Renoe, MATC Program Coordinator, at jrenoe2@unl.edu or 402-472-1932.