



***Request for
Proposals
2007 Research Program***

March 2006

**Transportation Research Institute
Request for Proposals
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I. Center Vision, Mission, Foci and Goals:

The Transportation Research Institute (TRI) draws upon campus researchers and graduate students from a variety of disciplines, colleagues from other Universities, and public transportation entities. The Institute seeks research endeavors that encompass design, demonstration, analysis, and evaluation. The TRI fulfills a special role as a center of expertise at a public institution, i.e., it offers workshops and conferences, manages an active publication program, and cooperates with industry and government on various public education endeavors.

IA. Vision

The vision of the Transportation Research Institute (TRI) is to foster cross-disciplinary inquiry into emerging transportation issues that have broad societal significance.

IB. Mission

The mission of the TRI is to provide a cohesive organizational framework that will permit faculty, students, and partners to focus on current and future transportation-related research activities as an integrated, functional process.



IC. Foci

Research efforts are focused on three interrelated areas: infrastructure and systems; emissions and environment; and advanced vehicles and transportation systems.

Programs in the Institute are aimed towards:

- *Discovering, through research and development, new component and system technologies that advance the vehicular and transportation systems state-of-the-art;*
- *Developing a new generation of vehicles and transportation systems with improved energy efficiencies and security, lowered pollutant emissions to the environment and, increased safety and durability;*
- *Conceiving and developing tools for designing, modeling, analyzing, vehicle components and transportation systems and environmental impacts;*
- *Teaching advanced transportation-related technology through undergraduate and graduate education programs, interactions with industrial and government partners and outreach activities to regional groups.*

ID. The program goals include:

- Establishment of nationally-recognized research programs through the development of research projects and partnerships with transportation-related companies and associated suppliers, federal agencies, governmental laboratories and other universities. Infrastructure resources, including research scientists, graduate students, research laboratory space, and research equipment, will be enhanced through the programs of the Institute.
- Enhancement of the undergraduate and graduate educational programs in transportation through the development of interdisciplinary courses, seminars, research experiences for undergraduate and graduate students, and summer internships for students with governmental laboratories and industry. The program prepares the next generation workforce able to meet the development challenges of transportation-related activities.
- Service and assistance to regional and national transportation-related industries and governmental agencies for the development of transportation technologies that have an economic benefit for the State and Nation.

II. Focus Areas for Proposal Submissions

The TRI conducts an annual solicitation for proposals under its research program. Faculty members at the University of Kansas may request funding under the program for research and/or research facility and program development. The research subject areas identified in the Institute proposal to the U.S. Department of Transportation and the Kansas Department of Transportation are shown in the figure above for reference. Although the selected topic area should be consistent with the vision of the Institute, proposals in all areas of transportation research will be considered.

III. Proposal Guidelines:

Two categories of research proposals may be submitted in response to this solicitation: (1) Research Initiation (RI) endeavors that are finite, focused, and conducted by individual faculty or tightly-integrated research teams, and (2) Research Team Partnerships (RTP) projects that involve research teams and an external partner. RI projects must be completed within a 12-month period; RTP projects may extend over more than one fiscal year, but will be subject to annual review and selection as described below. All research proposals must meet the guidelines outlined for their respective category, as follow:

IIIA. Research Initiation (RI) Project Proposals

1. Projects must be for a twelve-month period; the projected starting date should be August 18, 2006, unless circumstances require a later starting date.
2. Projects must be submitted by a faculty member, who will serve as the Principal Investigator (PI).

3. Total project costs requested should not exceed \$50,000, including F&A.
4. Allowable proposed charges include equipment, faculty time, student support, tuition for GRAs, supplies, travel and F&A. Summer faculty support must be limited to no more than one month. The proposed costs must be described in detail in a budget and a budget justification, and should be appropriate for the scope of work.
5. Only one RI project proposal may be submitted per competition by a faculty member.
6. Participation by a partner external to the University (government agency or company) is not required for RI project proposals. However, PIs are encouraged to include such partnerships if they believe the partnership would strengthen the proposed project.
7. The faculty investigator must commit a minimum of ten-percent of their academic year salary as an in-kind contribution to the project. This time commitment will be included in the grant accounting system for purposes of cost sharing documentation.

IIIB. Research Team Partnership (RTP) Proposals

1. Projects must be for a twelve-month period; the projected starting date should be August 18, 2006, unless circumstances require a later starting date. RTPs will normally extend across more than one fiscal year. PIs must include a brief summary of, and budget for, out-year activities. Proposal awards will be made for a twelve-month period; continued funding will depend upon demonstrated progress and relative ranking with other submissions in subsequent competitions.
2. Total costs for the first year requested should not exceed \$175,000 including F&A.
3. Allowable proposed charges include equipment, faculty time, student support, tuition for GRAs, supplies, travel and F&A. Summer faculty support must be limited to no more than one month per investigator. The proposed costs must be described in detail, and should be appropriate for the scope of work.
4. Participation by a partner external to the University (e.g., company, governmental agency, other non-university agency) is *required* for RTP proposals, and must follow the participation levels shown in Table 1. For planning purposes, estimates for FY 2007 through FY 2009 are also shown (these are subject to change in future solicitations). The "Minimum Overall Leveraging" column (column 2) may be met by all partners (including KU). The "Minimum Cash Leveraging Required" column (column 3) must be from a partner external to The University of Kansas and must be in the form of a cash contribution to the project. Levels of leveraging above the *minimum* shown are encouraged and will be considered in the overall project evaluation.

Solicitation Year	Minimum Overall Leveraging (includes Cash and In-Kind)	Minimum Cash Leveraging Required from External Partner
<i>(2006 Proposals)</i>	50% of TRI request	25% of TRI request Additional match may be cash or in-kind
<i>(2007 Proposals)</i>	75% of TRI request	50% of TRI request Additional match may be cash or in-kind
<i>(2008 Proposals)</i>	125% of TRI request	100% of TRI request Additional match may be cash or in-kind
<i>(2009 Proposals)</i>	100% of TRI request	75% of TRI request Additional match may be cash or in-kind

5. Each faculty investigator must commit a minimum of ten-percent academic year time as an in-kind contribution to the project. This time commitment will be included in the grant accounting system for purposes of documenting cost sharing.
6. Interdisciplinary collaboration is not required, but it is greatly encouraged in those circumstances in which it is appropriate, and leads to a strengthened research team.

IV. Guidelines for Proposal Format and Content:

The proposal must be developed and assembled in a logical order, as described below. RI project proposals should not exceed ten pages in length, including a title page and all appendices. RTP proposals should not exceed fifteen pages in length, including a title page and all appendices.

The following elements must be included in the proposal:

1. Title page

The cover must include the project title, principal investigator's name, partner names (if applicable), and contact information for the PI and partner (addresses, telephone, fax number and email). The title page must clearly identify which type of proposal is being submitted (RI or RTP).

2. Executive Summary (maximum of 250 words)

This section should provide a general description of the project.

3. Introduction and Project Background

This section should provide a brief background of the project, including a description of the motivation(s), goals, importance, and the technical approach that will be followed. PIs should provide a clear description of the technical problem being addressed, why this problem is important to the transportation field, and how the proposed research will solve or contribute to the solution of the problem/issue. The PI should also describe how the requested funding will improve the research infrastructure for the individual and/or team, and how partnerships with federal agencies and/or companies will be developed.

4. Plan of Work

This section should describe the task-by-task activities that the research team proposes for accomplishing the goals and objectives of the project. The tasks should be adequately developed and defined to allow evaluation of the technical approach of the project.

5. Project Schedule

A chart-based schedule should be included; task schedules by project month should be described.

6. Project Personnel

A brief description of the key research personnel should be included. One-page resumes of the key researchers may be included in an appendix if desired, if length limitations permit inclusion.

7. Project Budget and Budget Justification

An explanation of the relationship of the requested funds to the project tasks must be included. A line-item budget must be included, and must be divided into the normal divisions for expenditures (i.e., personnel, fringe, equipment, supplies, travel, and tuition). Columns for "TRI Funds", "Partner Funds" and "Total Project Funds" should be shown. The standard indirect-cost rate should be applied to the TRI and partner-supplied funds, and the dollars should be shown in the appropriate column.

8. Out-Year Activities (RTP projects only)

A brief description of these activities should be included.

9. Leveraging Funds and Letters of Commitment from Partners (where applicable)

A description of any partnership commitment to the project, and potential long-term relationship possibilities, should be described. A letter of commitment from the external partner(s) for the project must be included for the leveraging funds (in-kind and cash) listed in the budget.

Schedule:

<u>Date</u>	<u>Action</u>
March 31, 2006	RFP released
April 19, 2006	One-page letter of intent due (for evaluation planning purposes)
June 2, 2006	Proposals due
August 1, 2006	Notification of awards
August 18, 2006	Start date

1. Evaluation Criteria:

Each of the proposals will be reviewed (including reviewers external to the university) and ranked by a committee. The committee recommendations will be used for the final selection process and award notification. The following general criteria will be followed in evaluating the proposals.

VIA. *Research Approach (60 points)*

An evaluation of the research approach proposed for achieving the objectives of the proposal will be made. The relevance/importance of the proposed topic to the transportation field, the research approach proposed, the importance/impact of the project's anticipated results, and the relevance of the proposed project to the goals, vision, mission, and goals of the TRI will be assessed.

VIB. *Partnerships (required for RTP projects) (20 points)*

A goal of the TRI is to promote the formation of partnerships between The University of Kansas and governmental agencies and companies. Therefore, the proposal will be evaluated based on the level of partnership developed and documented in the proposal. Both the immediate twelve-month project partnership(s) proposed, and the longer-term potential for partnering will be considered.

VIC. *Budget (20 points)*

The budget will be evaluated based on the guidelines presented earlier. The level of cost leveraging from non-TRI sources will be considered as part of the evaluation.

VID. *Deliverables:*

- Award recipients are required to prepare and submit project reports according to federal regulations. A final report is due to the TRI within sixty days of the project completion date. If one or more journal papers are submitted for publication based on the project results, an abbreviated final report that includes the papers in an appendix is encouraged.
- Both RI and RTP investigators are required to submit at least one proposal that is related to the project to an external funding agency during the award period. A copy of any proposals submitted should be sent to the TRI when they are submitted to the KUCR.

- Recipients may be asked to make a short project presentation at an institute meeting during the project period.

VII. Submission Instructions:

The one-page Letter of Intent and the Final Proposal must be submitted by COB (4:45pm) on the dates shown in the schedule. The Letter of Intent must include the anticipated project title, project type (RI or RTP), names of investigators, the name of a partner (if appropriate), and a one-paragraph description of the project. The documents should be submitted to:

***Ms. Amanda Thomas
Research and Graduate Programs
University of Kansas, School of Engineering
1520 West 15th Street
Lawrence KS 66045***

VIII. Publications:

The Transportation Research Institute is supported through grants with the U.S. Department of Transportation and the Kansas Department of Transportation. All work published or otherwise reported must acknowledge these partners and the supporting contracts. Investigators should contact the TRI regarding proper acknowledgement in publications.