

**Research Proposal**

**Project Title**

Title Here

**Submitting Principal Investigator**

Your name here

**Background and Significance of Work**

Should provide findings from a preliminary literature search.

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**Problem Statement**

A clear and concise statement of the problem to be solved by the proposed research.

**Objectives of the Study**

These are the technical objectives upon which the research team is to focus attention. The objectives should clearly and concisely identify the expected products of the research effort.

**Expected Benefits**

Benefits anticipated from the research findings must be identified.

**Implementation**

This section of the proposal shall include the Project Implementation Plan.

* For studies which are expected to provide immediate results, the proposal should specify an implementable product such as a proposed specification, a procedure manual or guide, a training manual, hardware for demonstration or software and instructions ready for computer application.
* If the findings of a study will not be suitable for immediate application in practice, the research proposal should set forth additional steps which are expected to be required before application (e.g. additional research, field testing, etc.).

**Work Plan/Tasks**: The Work plan/tasks should fully describe the approach intended and specify how the study will be structured to meet each study objective. All requirements for support services and equipment from the Department shall be clearly defined as to nature and extent. An approved work plan cannot be altered or amended without the approval of the Research Section.

#### Tasks

Provide Specific details of the tasks included in your research plan and design plan. **General** **Required Tasks Must Include:** meetings with TAC members throughout the life of the project, completion of final report, completion of technical brief, and PowerPoint presentation to NDOR at completion of the project. The funded research project timeline can be found at <https://dot.nebraska.gov/business-center/research/> under For Researchers.

1.

2.

3.

4.

5.

6.

etc.

##### Schedule

Use the table to detail the proposed schedule corresponding with the Tasks listed in this proposal. Block out the corresponding quarters indicating when work will be performed for the listed tasks

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tasks** | **Description** | **Year 1** | | | | **Year 2** | | | |
| QTR 1  Jul-Sep | QTR 2  Oct-Dec | QTR 3  Jan-Mar | QTR 4  Apr-Jun | QTR 5  Jul-Sep | QTR 6  Oct-Dec | QTR 7  Jan-Mar | QTR 8  Apr-May |
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|  | 100% TAC Update Meeting Final Presentation |  |  |  |  |  |  | Mar -Apr | |
| \*Draft Report |  |  |  |  |  |  | Mar. 1st |  |
| DOT Review/Comments |  |  |  |  |  |  |  | Apr. 1st |
| Final Report/Deliverables Due |  |  |  |  |  |  |  | Apr. 15th |
| Quarterly Report 7 |  |  |  |  |  |  |  | Apr. 30th |

The Proposed Budget must include a cost breakdown by year, and must include any equipment, personnel and operating expenses that will be incurred during this project.

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| --- | --- | --- | --- | --- |
| **Proposal Budget** | | | | |
|  | **Item** | **Year 1**  **Ju1 1st-Jun 30th** | **Year 2**  **Jul 1st- May 31st** | **Total** |
| **Personnel** | Name & Role (monthly rate salary X person months) |  |  |  |
| PI- ($$$ X # hrs.) |  |  |  |
| GRA-T BD ($$$$ X 23) |  |  |  |
| Undergrad - TBD ($ X # hrs.) |  |  |  |
| **Fringe Benefits** |  |  |  |
| **(A) Personnel and Benefits Total** |  |  |  |
| **Capital Equipment** |  |  |  |  |
|  |  |  |  |
| **(B) Total Equipment** |  |  |  |
| **Operating Expenses** | Mid-American Transportation Center (Section 508 Compliance for Final Report) | - | $1,000 | $1,000 |
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| **(C) Total Operating Expenses** |  |  |  |
| **TOTAL** | **Personnel Overhead (\_\_% of A)** |  |  |  |
| **Operating Expenses Overhead (\_\_% of C)** |  |  |  |
| **Total Project Cost (A+B+C+ Overhead)** |  |  |  |

**Personnel and Budget Estimate**: A summary tabulation showing the staffing plan (such as PI, Co-PI, graduate/undergraduate students and contract personnel), estimated personnel requirements and cost for the full term of the study broken down by each work program period.

**Fringe Benefits**: These are estimates and charges for actual expenditures will be reviewed by the Department

**Equipment Purchase**: Each item of non-expendable equipment to be purchased or fabricated by the Contractor under the research project shall be listed as Capital Equipment if priced at $5,000 per unit or more. All equipment must meet Federal requirements and, if applicable, the University’s procurement standards. NDOT will required a certification that the entity meets Federal requirements. If clarification is needed, contact the RPM.

**Operating Expenses**: This item may include supplies that are essential to effectively conduct the research project, including, but not limited to, expendable equipment, laboratory supplies, office supplies and charges from other departments of the contracting agency for project services. If applicable, consider the following:

**Equipment Rental**: A list of equipment to be rented along with the rental rates shall be supplied.

**Computers and Computer Software/License**: All computer equipment, no matter the purchase amount, shall be listed. Each computer program and/or license that is purchased by project funds shall be listed.

**Travel**: Include all anticipated travel costs. In-state project-related travel shall be itemized specifying number of site visits, personnel expected, length of stay, etc. Out-of-state travel as a lead presenter for technology transfer will be considered on a case-by-case basis.

**Testing Services**: This includes materials testing, pavement performance evaluation equipment such as Falling Weight Deflectometer, core drilling, profilograph/profilers, skid testing, etc.

**Additional Proposal Information:** Please provide a general description of the items needed to complete the work/testing. The following must be listed and justified:

* All personnel and benefits,
* Operating expenses, and
* Capital equipment (>$5,000).

**Work Time Schedule**: A Gantt chart must be utilized to outline activity timelines, mileposts, the interrelationship and scheduling the major operational phases by quarter (Three months).

**Budget by Task**

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| --- | --- | --- |
| **Tasks** | **Description** | **Total Budget per Task** |
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**Additional Proposal Information:** All personnel and benefits must be listed and justified. All operating expenses must be listed and justified. All capital equipment (>$5,000) must be listed and justified. All other significant equipment and supplies must be listed and justified.

**Additional Proposal Information**

**Budget Details**

Personnel

PI – The PI is requesting \_\_ months of compensation for tasks \_\_, \_\_, and \_\_.

GRA – A graduate research assistant will be funded at $ \_\_\_\_ per year for 23 months.

Undergraduate – An undergraduate student will be hired to help the PI and GRA

Benefits – Use research institution standard fringe benefit rates (medical, retirement and tuition) for faculty, graduate students, and undergraduate students.

Adjustments – -----% increases in budgeted salaries are applied for the second project year to account for inflation.

Equipment

No equipment is requested for this project.

Operating expenses

Operating expenses include costs for purchased literature ($-----), travel costs for travel to observe existing dissipation structures ($------), Materials for building the testing facility and infrastructure ($--------), materials for building instrumentation support ($-------), materials for building alternatives ($------- each), and publication costs associated with the final report and project documentation ($------). More detailed information about material estimates can be provided if needed.