



**New Jersey Department of Transportation
Bureau of Research for Pavement & Drainage Management
and Technology unit, Capital Program Management
RESEARCH PROJECT
Request for Proposal
2021-2025 Program**

Project Title: NJDOT Pavement Support Program

Posting No.: 2020-05

Date of RFP Announcement: 08/25/2020

Closing Date: 10/05/2020

Proposals must be prepared in accordance with NJDOT's Supplemental and Proposals guidelines. Please visit <https://www.state.nj.us/transportation/business/research/guidelines.shtm> for the most current version.

All proposals must also have a corresponding online PreAward Risk Assessment form completed and submitted by the PIs prior to the RFP closing date and time. This online form can be found at: https://www.state.nj.us/transportation/business/research/risk_assessment_forms.shtm

1 - RESEARCH PROBLEM STATEMENT AND OBJECTIVES

1.1 Problem Statement

The New Jersey Department of Transportation (NJDOT) Pavement Support Program is a research oriented program to support the NJDOT in its mission "To provide a world class transportation system" that enhances the quality of life for residents and travelling public, stimulates and sustains smart development and economic growth, and employs the latest technologies to adapt to changing conditions and environments. The objective of the Pavement Support Program is to guide and strengthen the State's direction and decision making through research in the areas of pavement materials, design, construction, testing, quality control, and asset management. The Pavement Support Program may include any of, but not limited to, the following activities as directed by the Pavement & Drainage Management and Technology (PDMT) Unit's needs.

1.2 Research Objectives

1. Innovative Materials:

Research and test new or innovative materials or additives or mix designs to enhance pavement performance, constructability, material production, sustainability, etc. Examples include rubber modified gap graded mix, fiber additives, warm mix technologies, trackless tack coat, recycled materials, etc. Assist in the development of related design guidance, construction specifications and quality assurance test procedures to aid in the successful implementation of new methods and technologies.

2. Innovative Technologies:

Conduct research into innovative pavement technologies that offer benefits with regard to cost, quality, performance, constructability or sustainability. These may include surveys, literature reviews,



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equipment demonstrations, Embedded Instrumentation and Monitoring, 3-D Visual Modeling etc. Examples include Intelligent Compaction, Thermal Profiling, Enhanced Traffic Speed Friction Testing, Accelerated Pavement Testing, Precast Pavement Systems customized to New Jersey needs, etc. Assist in the development of related design guidance, construction specifications and quality assurance test procedures that will aid in successful implementation.

3. Pavement Management system development:

Assist the Department in the development and continuous improvement of its Pavement Management System. Examples include evaluating alternative methods for incorporating automated distress data into the PMS network condition analysis, treatment triggers, budget analysis and program development, investigating opportunities to enhance treatment performance analysis and reporting. Investigate gaps in the full implementation of the MAP-21 and FAST acts, as well as a potential INVEST act, with regard to data collection, reporting and quality assurance requirements, and develop potential strategies to bring New Jersey's Pavement Management System into compliance. Assist the Department in the areas of Transportation Asset Management (TAM) and Transportation Performance Management.

4. Pavement Design procedures:

Assist the Department in evaluating its current Pavement Design procedures and software. Research and recommend alternatives to improve reliability of pavement designs. Investigate and develop NJ specific inputs and templates to improve productivity and develop related design guidance documents.

5. Life Cycle Cost Analysis:

Assist in developing a methodology to evaluate and compare the life cycle costs of new pavement materials and technologies that have been implemented with those of more traditional materials and technologies. Examples include BRIC w/SMA, HPTO, rubber modified mixes, etc.

6. Conduct Research in support of pavement policy decisions:

Assist in gathering and presenting information to help guide and justify DOT pavement policy through data mining, surveys, and literature searches.

7. Technology transfer:

Provide pavement related presentations and demonstrations to highlight relevant pavement information to keep NJDOT staff abreast of the current state of the practice and promising developments in the fields of pavement management, pavement design, materials engineering and pavement construction.



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8. On-call services during urgent situations:

Assist the Department and Pavement & Drainage Management and Technology unit during urgent situations by providing on-call services at a short notice and upon direction by the PDMT. These may include, but not limited to, forensic and performance testing of asphalt binders and asphalt mixtures in the field as well as in the investigation laboratory, and may be conducted by the institution and/or its sub consultants/contractors.

1-3. Type of Contract.

It is proposed that if the Issuing Office enters into a contract because of this Request for Proposal (RFP), it will be a **Cost Reimbursement, Deliverable-Based** contract containing the Standard Contract Terms and Conditions. It is also proposed to contract TWO (2) universities/institutes of higher education for this program. The actual work distribution will be done through subsequent task orders which will be executed as per the needs of the Department. The selected university/institute of higher education will be required to enter into a Basic Agreement (contract) with the Department, if it does not already exist. An absence of such a Basic Agreement at the time of awarding the contract will not disqualify the university, but it may cause a delay in executing a work task order which will follow only after a Basic Agreement is executed.

2 - BUDGET and CONTRACT TIME

The **TOTAL** project budget is anticipated to be approximately **\$3,500,000 US Dollars per year**. The PI must provide the anticipated research study duration based on the proposed tasks. Consideration should be given to potential impediments so that adjustments are incorporated into the schedule minimizing the need for time extensions. Contract time shall include sufficient time for the procurement of subcontractors, as well as no less than three months for Final Report review and acceptance. Please be advised that going forward, new task orders having permissible justification will be allowed no more than one time extension with the advent of 2 CFR 200.

Initial 60 month contract duration with an option for a renewal of up to 60 months is anticipated.

Please provide a Gantt Chart schedule, utilizing the sample provided within this document.

3 - Oral Presentations. Oral presentations may be requested as part of this RFP. If required, you will be notified by the Pavement & Drainage Management and Technology to schedule your oral presentation. They will be held at NJDOT headquarters in Trenton, NJ, attended by the Technical Advisory Panel (TAP), and be limited to no more than an hour, including time for questions and answers.



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4 – DEADLINE

Proposals (10 single-bound copies) are due at the NJDOT Pavement & Drainage Management and Technology no later than **4:00 p.m. on October 05, 2020**

Approximate Start Date: 01/01/2021. The official start date is the date that the Pavement & Drainage Management and Technology obtains a signature from the Assistant Commissioner.

5 – CONTACTS

Interested parties shall send all questions related to this RFP to the Pavement & Drainage Management and Technology, Project Engineer, by sending an e-mail to Sharad.Rana@dot.nj.gov or by phone (609-963-1648). Questions on this topic **shall not** be directed to any Research Project Manager, Research Customer, or any other NJDOT person. All questions must be received **on or before 09/04/2020 in order to be answered.**

PROPOSAL DELIVERY INSTRUCTIONS:

* During the COVID-19 pandemic, hand-carried deliveries will not be accepted.

For private, paid messenger services such as Federal Express, DHL, UPS, etc.:

RFP No. 2020-05 PROPOSAL-NJDOT
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New Jersey Department of Transportation
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