



New Jersey Department of Transportation
Bureau of Research, Innovation and Information
Transfer (BRIIT)
RESEARCH PROJECT
Request for Proposal
2025- 2026 SPR Program

Project Title: Best Practices for Traffic Signal Priority Integration
Posting No.: 2025-03
Date of RFP Announcement: 01/23/2025
Closing Date: 03/03/2025

NOTE: Due to P.L. 2019, c. 196, the New Jersey Department of Transportation cannot award research grants to PRIVATE and/or OUT OF STATE institutes of higher education.

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 Principal Investigator (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) and NJ Transit are launching a collaborative research initiative to develop and implement Transit Signal Priority (TSP) technologies for seamless integration between NJ Transit buses and NJDOT roadside infrastructure. The goal is to allow communication between buses and traffic signals, optimizing traffic flow, reducing delays and idling, and improving service for underserved communities. This project will enhance the TSP system knowledge base among these agencies.

1.2 Research Objectives

1. Peer Review and Best Practices: Conduct a review of successful TSP systems nationwide to identify best practices, lessons learned, technologies, and innovative solutions that can inform New Jersey's TSP development.
2. Technology Assessment and Integration: Evaluate vehicle-based and roadside technologies for TSP compatibility, including communication protocols, hardware, software, and compatibility with NJDOT and NJ Transit requirements including compatibility with our current and future planned bus fleet.
3. Implementation Report: Develop implementation report based on feasible pilot locations in New Jersey. Pilot locations should be identified in collaboration with NJDOT and NJT.



**New Jersey Department of Transportation
Bureau of Research, Innovation and Information
Transfer (BRIIT)
RESEARCH PROJECT
Request for Proposal
2025- 2026 SPR Program**

Deliverables:

- **Peer Review Report:** An analysis of TSP best practices, lessons learned, technologies, and implementation strategies based on successful systems across the country. This report will provide insights and recommendations tailored to NJ Transit and NJDOT's needs.
- **Technology Blueprint:** A set of recommendations for bus-based technologies and integration requirements to ensure compatibility with NJDOT's traffic infrastructure and with NJ TRANSIT's current and planned bus fleet. This blueprint will outline necessary communication protocols, hardware, and software for real-time coordination.
- **Proof of Concept for Piloting:** Develop implementation report based on feasible pilot locations in New Jersey. This report will validate system functionality and performance, providing valuable data on these selected locations.

Note: Must include a technical editor for the development of the project deliverables.

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.

2 - BUDGET and CONTRACT TIME

The **TOTAL** project budget shall not exceed **\$200,000 US Dollars**. The overhead rate for this RFP shall not exceed 15%.

Note:

1. Clarification that the 15% overhead rate is applicable to the prime awardee only and does not apply to consultants or subcontractors (if applicable), they may charge their normal overhead rate.
2. Modified Total Direct Cost includes all costs except equipment (>\$10,000) and subcontracts (>\$50,000).

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 note that new task orders with valid justification will be permitted only a one-time extension under 2 CFR 200.

12-month total project duration is preferred.

Please provide a Gantt Chart schedule, by month number (e.g., 1-24), showing tasks start/end, and deliverables. List corresponding deliverables below the chart.



**New Jersey Department of Transportation
Bureau of Research, Innovation and Information
Transfer (BRIIT)
RESEARCH PROJECT
Request for Proposal
2025- 2026 SPR Program**

3 – Oral Presentations

Oral online presentations may be requested as part of this RFP. If required, you will be notified by the BRIIT 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.

4 – Deadline

Proposals (no hard copies required) are due at the NJDOT BRIIT no later than **4:00 p.m. on March 3, 2025**. Electronic proposal documents (preferred pdf) shall be emailed to DOT-Research.Proposals@dot.nj.gov with the subject: **RFP-2025-03 University – PI's name**.

Approximate Start Date: 05/01/2025. The official start date is the date that the BRIIT obtains a signature from the Assistant Commissioner.

5 – CONTACTS

Interested parties shall send all questions related to this RFP to the BRIIT Manager by sending an e-mail to Pragna.Shah@dot.nj.gov or by phone (609-963-2232). 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 02/07/2025 in order to be answered**.

PROPOSAL DELIVERY INSTRUCTIONS:

Electronic proposal documents (preferred pdf) shall be emailed to
DOT-Research.Proposals@dot.nj.gov with the subject: **RFP-2025-03 University – PI's name**.
A confirmation of receipt will be sent via email.