Region 2
University Transportation Research Center

RFP Cover Sheet

Title: Innovative Travel Data Collection - Planning for the Next Two Decades
RFP Number: Z-14-04
Sponsor: NYMTC
Date Issued: July 24, 2014
Final Proposal Due at UTRC: September 24, 2014 (submit electronically through the UTRC online submission system at http://www.utrc2.org/welcome-utrc-ii-submission-system)

RFP Closing Date: Wednesday, September 24, 2014

If you plan to apply:
Please contact Penny Eickemeyer at peickemeyer@utrc2.org to let us know you are assembling a proposal. We will make sure you receive any additional information that becomes available about this RFP.

Proposal submission guidelines:
Please submit your proposal electronically to UTRC. All proposals must include the UTRC cover page, http://www.utrc2.org/sites/default/files/Technical-Proposal-Cover-Sheet.doc.

Budget forms can be downloaded at http://www.utrc2.org/sites/default/files/budget-Template.xls

Funding available:
Up to $100,000 is available from NYMTC. UTRC will provide up to $35,000 in matching funds for requested funding above this budgeted amount.

For questions about this proposal, please contact:
Munnesh Patel, (212) 383-2528, Munnesh.Patel@dot.ny.gov
cc : Ismet Apdiroglu, Ismet.Apdiroglu@dot.ny.gov

For questions about budget preparation, please contact:
Penny Eickemeyer, peickemeyer@utrc2.org

Scope of Work
Innovative Travel Data Collection- Planning for the Next Two Decades
Z-14-04

OBJECTIVE

The main objective of this study is to identify and describe rapidly emerging new methods of personal travel data collection, a first step in the development of travel models relevant to the mid 21st Century.

This task assignment has the following objectives:

1. To identify and clarify these two emerging effects – real time data and changing culture - as described below
2. To identify the shifts in data collection and transportation modeling that must take place to assist in identifying and forecasting travel behavior,
3. To discuss the impacts of such operational shifts, both in cost and outcomes to provide NYMTC with the cost and efficacy impacts of incorporating these emerging tools.

BACKGROUND

The New York Metropolitan Transportation Council (NYMTC) is the Federally-mandated Metropolitan Planning Organization (MPO) for the downstate New York region. The NYMTC region includes New York City, Long Island and the lower Hudson Valley. It encompasses an area of 2,440 square miles and a population of over 12.0 million, approximately 65% of New York State's population. NYMTC consists of voting members: Counties of Nassau, Putnam, Rockland, Suffolk, and Westchester, Metropolitan Transportation Authority, New York City Department of Planning, New York City Department of Transportation, and New York State Department of Transportation, and advisory members: New York State Department of Environmental Conservation, USEPA (US Environmental Protection Agency), FHWA (Federal Highway Administration), FTA (Federal Transit Administration), and PANYNJ (Port Authority New York New Jersey).

As the MPO (Metropolitan Planning Organization), NYMTC conducts comprehensive long-range transportation planning and annually oversees several billion dollars in transportation investments for the most dynamic and complex transportation systems in the nation. NYMTC sponsors and conducts studies, and provides a forum for interagency cooperation and public input into funding decisions.

The NYMTC region has several overlapping air quality non-attainment areas. As a result, NYMTC must analyze the emissions resulting from its plans and programs under the transportation conformity regulations and as required by the Clean Air Act (CAA) and the National Ambient Air Quality Standards (NAAQS).

NYMTC has developed a set of transportation models, including Travel Demand Forecasting Model (NYBPM), to respond to the Federal Requirements of Intermodal Surface Transportation Efficiency Act (ISTEA) and the CAA of the 1990s. This model predicts changes in the future travel patterns in response to changes in the demographic profiles and transportation systems in the region. The NYBPM incorporates transportation behavior and relationships that have been developed with an extensive set of data that includes a major travel survey of households in the region, land-use inventories, socioeconomic data, traffic and transit counts, and travel times. Individual members and the Central Staff of NYMTC use its Best Practices Models system to conduct these studies.

There are two basic growing effects that will influence the efficacy of NYMTC – planning in the next decade.

- The first is the strong emergence and use of nearly ubiquitous real time information by all aspects of society, including transportation providers, information providers and their users. This includes all of the current names applied to this prevalence of digital information, including big data, the cloud, social networks, Apps and other terms. More than 75% of Apps downloaded or provided with a smart device are location (GPS) dependent. Taken together, they have shifted how information is collected, analyzed and used – both by a service provider and a customer in ways unthought-of a decade ago.
- The second is the emergence of cultural shifts between generations – generations referred to as Gen X, the millennial's and others. Understanding both the attributes of these generations and their "lifestyle" aspirations is key to planning and investment for infrastructure in the next decades.

II. SCOPE OF SERVICES

TASKS

TASK 1: REVIEW OF PRACTICE AND RESEARCH

This task shall review current literature, reports, discussions and new practices to identify the use of mobile devices including, but not limited to, smart phones, mobile phones, GPS technology and social networks for conducting transportation surveys and collecting data on travel behavior. The effectiveness of using the data collected for transportation modeling and surveying to meet the federal requirements of long range transportation planning and decision making shall be documented. The research shall include identifying emerging survey data collection methods and modeling used by other MPOs, regional agencies within the United States and to some extent internationally, and among NYMTC members. Key sources of information, research and studies (e.g., Pew Surveys, research projects in progress) used for the evaluation will be identified.

Deliverables

- A discussion paper reflecting the research outlined above that shows:

- the use of alternative data sources such as "Big Data[1]" and real time travel surveys
- A list of specific data and approach to collecting the data that could replace/supplement NYMTC's modeling needs

TASK 2: COST EFFECTIVENESS AND EFFICACY OF EMERGING TRAVEL SURVEY TECHNIQUES:

Conduct a comprehensive cost benefit analysis of undertaking the alternative data collection methods identified in Task 1 to evaluate their effectiveness if deployed for data collection by NYMTC. Develop cost models that can be applied to NYMTC data collection and modeling to assess cost differentials, reliability and accuracy of the data and added benefits of these emerging data collection methods, as well as the means to use these data in traditional or new approaches to transportation modeling.

Deliverables

- A technical memo on the cost benefit analysis of undertaking the alternative data collection methods identified
- A technical memo describing the assumptions and the methodology of the cost models and their implications on NYMTC's data collection and modeling to address Long Range Transportation Planning and other required work products.

TASK 3: DEVELOP RECOMMENDATIONS FOR NYMTC's DATA COLLECTION ACTIVITIES

After the completion of Tasks 1 and 2, identify specific new data collection strategies using mobile devices that would be effective in the NYMTC region. Develop recommendations for NYMTC to consider in their current and future data collection activities for survey tools and transportation modeling while reducing costs, meeting federal mandates including new regulations of MAP 21, and enhancing the data collection, modeling and planning process in the region.

Deliverables

- A technical memo describing Recommendations for NYMTC's Data Collection Activities
- A presentation to the NYMTC staff and members.
- Draft and Final Report: Culmination of Tasks 1, 2, and 3. 20 paper copies and in MS Word electronic file format, detailing the tasks described above.

[1] Big Data refers here to large amounts of data collected in real time from GPS locations, sensors, vehicle operations, demographic counts and other sources that require innovative tools to process and analyze.

Research Period

Six Months

IV. PROPOSAL FORMAT AND CONTENTS

Respondents are requested to submit their proposal using the following format. There is no limitation on the number of pages permitted, **but concise proposals** are requested, in 12 point font. Proposals should be as detailed as necessary to explain their approach to the project and the technical methods to be utilized.

For the purpose of evaluation, each proposal must be submitted in two (2) parts. Part I shall consist of the Technical and Management Submittal. Part II is the Cost Submittal. Each part of the proposal must be complete in itself in order that the evaluation of both parts can be accomplished independently and concurrently, and the evaluation of the Training and Management Submittal can be strictly on the basis of its merit. Cost information is not to be included in the Technical and Management Submittal. Each proposal should follow the format listed below:

A. Part I: Technical Submittal

1. Title Page, indicating: Name, address and phone number of the proposer, including a contact person and the name of the person(s) who prepared the proposal.
2. Table of Contents
3. Executive Summary (1-2 pages). Provide a brief description of your approach and highlight how your firm's capabilities and experiences will help the Council achieve its objectives.
4. Approach and Scope of Services. Describe your approach for performing the work and how it will accomplish project objectives. Provide a detailed scope of services which describes what will be done and addresses learning objectives for the trainees. The proposal should reflect understanding and comprehension of project scope and objectives. You may base your scope of services on the outline provided under Section II., or suggest alternatives/modifications which could improve the ability to NYMTC to meet its objectives.

NYMTC wants to allow maximum flexibility for the ideas, initiative, and creativity of the proposer. Alternative tasks and suggestions are encouraged and will be reviewed with interest within the framework of the stated objectives and scope of the project. Fully explain and justify your approach.

5. **Experience**. Describe the experience of your organization and the proposed training staff related to the conduct of the program and the extent of the teaching skills of proposed key personnel. Prior experience of the proposer is of great

importance to NYMTC. Experience with the public and in transportation planning is highly desirable. Include information about the team's past experience in work of this type, size and scope. Identify key personnel assigned to this project who have worked on such projects. Include names, addresses and telephone numbers of contact persons with listed clients. NYMTC reserves the right to request information from any source so named.

6. Organization, Staffing and Schedule**.**

Identify the individual who will serve as principal investigator as well as the names and titles of all key personnel who will be assigned to work on this program (including any sub-consultants). Include resumes or excerpts for all such personnel. Provide the estimated amount of time required for each person (by task) and describe the level of involvement. Describe the level of interaction contemplated with NYMTC.

If sub-consultants are to be used, explain the need, indicate the arrangement, and detail how coordination will be achieved between the parties.

B. Part II: Cost Submittal

Proposals should indicate direct and indirect costs, hourly rates and hours by task, travel costs, and material costs to assist NYMTC in understanding how the total cost for the work was estimated. The winning proposal will result in a fixed cost contract based on details provided.

Please provide a budget chart which shows for each task the deliverable and cost. Task headings in the Budget Chart are to match the scope task headings.

Please include a Gantt Chart, showing the duration (start to finish) for each task in terms of months (i.e. Month 1, Month 2, etc) since the actual start date is an estimate. If the proposal involves a joint venture or sub-consultants, it must be clear as to how tasks will be distributed or shared in the scope of work.

V. PROPOSAL EVALUATION CRITERIA

A. General

Proposals will be evaluated by the designated selection committee based on the technical, management, programmatic, and cost criteria described below. Technical considerations are of greater importance than pricing considerations. However, price is a significant factor in NYMTC's evaluation of proposals. Programmatic considerations will impact NYMTC's final award selections. Technical proposals will be scored based on the information provided under Section IV, Part I: Technical Submittal in accordance with the pre-established criteria listed in Section B below. The cost portion of Section IV, Part II: Cost and

Contract Submittal will be point scored in accordance with the pre-established criteria listed in Section C below.

Proposal evaluation shall be accomplished by a representative committee comprised, as appropriate, of technical, program, and management personnel.

Award shall be made to the offeror whose proposal in NYMTC's judgment represents the best overall value to the state considering all technical and cost/price evaluation factors.

At the conclusion of the evaluation period, all proposers will be advised in writing of their status under the solicitation. However, it is expressly understood that this Request for Proposals does not commit NYMTC/NYSDOT to award a contract, pay any costs incurred in the preparation of a proposal to this request, or to procure or contract services or supplies. Further, NYMTC/NYSDOT will have no obligation or liability whatsoever to the vendor selected as a result of this solicitation unless and until a contract satisfactory to NYMTC is.

B. Technical and Management

The technical and management proposal will be scored and will represent 70% of total score of a proposal.

1. Experience and Credentials (50 %)

a. Quality of credentials and experience of key staff (40%). Quality, extent and relevance of experience, education and skills of key personnel (to include any subconsultants).

b. Quality, extent and relevance of current and prior experience of the team (including subconsultants) in conducting similar efforts (10%).

2. Approach

   a. Approach Factor (4%)

   b. Scope of Work factor (3%)

3. Organization and Staffing

   a. Reasonableness of Staff Allocation (4%)

   b. Reasonableness of Hours Proposed (3%)

4. Schedule Factor – start work within 15 days of execution, and provide a schedule (Gantt chart) (6%)

C. Cost and Contract (30%)

The cost portion of the cost payable by NYMTC and contract proposal will be point scored and will represent 30% of the total score for a proposal. The calculation of a cost score will be determined by comparing the cost proposed for each competitive proposal to the lowest priced, technically acceptable proposal.

FUNDING

$ 100,000 has been budgeted for this project. NYMTC believes this is a reasonable estimate for the total cost of the work being requested.

Proposals with a NYMTC cost over the budgeted amount will also be considered, provided the NYMTC cost does not exceed the budget estimate by more than 10%. (Note: Cost-sharing funds may increase the total project cost further.)

SPECIAL NOTES

Principal investigators should be familiar with and follow the requirements of New York State (the Compliance Procurement Lobbying Law of 2005) with regard to consultant contract procurement. Information can be found on the NYSDOT web site (www.NYSDOT.gov) under "Business Center," then "Consultants," then "Non-Architectural Engineering," then "Active Solicitations."

In particular, please note that communications between Contractors, Consultants/Principal Investigators, and Vendors with the Department are restricted during the period of time when services for more than $15,000 have been requested (Request for Proposals issued), up until the time when the Consultant is selected. During this time communications, where a reasonable person would infer that the communication was intended to influence the procurement, should be

limited to Department staff identified in the solicitation as "designated contacts." Any communication with an employee, who is not a designated contact which is intended to influence the solicitation, could result in the outside party being prohibited from competing for the solicitation. A second violation will ban the Consultant/Principal Investigator from competing for any Department solicitation for four years.

The designated contacts for this solicitation are:
Munnesh Patel, 212-383-2528, email to: Munnesh.Patel@dot.ny.gov
Copy: Ismet Apdiroglu, Ismet.Apdiroglu@dot.ny.gov and
Shalendra.Ramadhin@dot.ny.gov

Questions seeking clarification on this RFP will be accepted up to two weeks prior to the due date for proposals and should be e-mailed to the above contacts.

• Proposals should indicate direct and indirect costs, hourly rates and hours by task, travel costs, and material costs to assist NYMTC in understanding how the total cost for the work was estimated. The winning proposal will result in a fixed cost lump sum milestone contract based on details provided.

• Proposals must be received by September 24 , 2014. NYMTC has a contract in place with the Region 2 University Transportation Research Center, and this Request for Proposals is being offered to the members of that consortium. Members should submit proposals through the administrators of that consortium.