



**REGION 2
UNIVERSITY TRANSPORTATION RESEARCH CENTER
RFP COVER SHEET**

Title: Develop Consultant Management Estimating Tool

RFP Number: C-06-15

Sponsor: NYSDOT

Date Issued: July 13, 2007

Pre-Proposal Meeting Date: None

Email Expressing Interest Due at UTRC/NYS DOT: September 21, 2007 (send to nadia@utrc2.org, cc: ckamga@utrc2.org)

Final Proposal Due at UTRC: October 30, 2007 (send to nadia@utrc2.org, cc: ckamga@utrc2.org)

RFP Closing Date: October 31, 2007

If you plan to apply:

Please contact Nadia Aslam at nadia@utrc2.org (cc: ckamga@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 let us know by email first your intention to submit a proposal by August 10, 2007. Submit your proposal electronically to UTRC. We will confirm that the proposals make comparable budget assumptions and will deliver the proposals to the sponsoring agency by the closing date.

Funding available:

Up to \$200,000 is available from NYSDOT. USDOT (UTRC) will provide up to \$50,000 in matching funds for requested funding above this budgeted amount. To the extent possible, we request that PIs identify sources of in-kind funding from their home institution (e.g., tuition waiver/reductions, overhead cost-sharing, faculty release time, etc.)

For questions about this proposal, please contact:

Paul Hoole, Director

Research and Policy Studies Section, 6th Floor

New York State Department of Transportation

50 Wolf Road

Albany, NY 12232

For questions about budget preparation, please contact:

Camille Kamga, ckamga@utrc2.org

New York State Department of Transportation
Request for Proposals
SPR # C-06-15: Develop Consultant Management Estimating Tool
7/13/07

RESEARCH PROBLEM STATEMENT

The primary business of the Consultant Management Bureau is Consultant Contract Negotiations and monitoring of Consultant Contract Budgets. Contract Negotiations include developing accurate independent Contract estimates. The estimates, which currently involve the use of engineering judgment and knowledge of projects previous and current, should be based on data compiled from past projects. At present there is not a central location where historic project cost and staffing level data and information is available. The intent of this research project is two-fold: to create a database of historical project costs and provide a computer-based estimating tool for use by Consultant Job Managers in developing independent estimates more efficiently and more accurately. A user guide and training module will also be developed.

OBJECTIVES

The objective of the research project is to estimate and calibrate a computer-based Consultant Contract Estimating Tool based on a database of previous project costs and staffing records. When this effort is concluded, the Consultant Job Managers will have a computer-based tool to assist in developing independent estimates. NOTE: The data to be accessed is proprietary to NYSDOT.

PROPOSED RESEARCH TASKS

Task descriptions are intended to provide a framework for conducting the research. NYSDOT is seeking the insights of proposers on how best to achieve the research objectives. Proposers are expected to describe research plans that can realistically be accomplished within the constraints of available funds and research period. Proposals must present the proposer's current thinking in sufficient detail to demonstrate their understanding of the issues and the soundness of their approach to meeting the research objectives.

Possible Tasks:

- Conduct a literature search to determine if similar estimating tools and databases are used by other agencies, and what is available from vendors.
- Collect data from bills and contracts for completed, consultant-designed, DOT highway and bridge projects. The first phase will involve sampling of existing data sources to develop a historical data collection plan, followed by an effort to systematically collect the data relevant to the research project.
- Review the data and determine the groupings of design tasks (with input from DOT staff)
- Generate a robust database of historic data regarding staffing resources needed to develop preliminary and final designs. This effort could include using bills, contracts, design approval documents, and final project plans and estimates to provide

correlations between staffing levels and task outputs. This is likely to be the major focus of this research project. Persons assisting in this research shall be required to sign a confidentiality statement agreeing not to share or release any of the data being accessed.

- Assist the State by interviewing expert panels to define task specific resource requirements for preliminary and final design tasks. This task is intended for task estimates which can not be derived from existing data.
- Determine significant independent variables which correlate with the actual resources to develop common classes of projects and associated tasks (i.e., hours/map, size of project, type of project, etc.)
- Develop an estimating tool based upon an existing MS Excel spreadsheet program which correlates with historic data and can be modified based on engineering judgment and parametric evaluations.
- Develop a calibration plan: select an appropriate class of projects as a prototype, test the estimating tool and database for that class of projects, and adjust the estimating tool accordingly.
- Document all user procedures and develop a user guide.
- Provide Training – Develop a MS PowerPoint presentation and training module to guide engineers (Assume 3 presentations: Albany, NYC and Rochester).

RESEARCH PRODUCTS

Under this research project a computer-based estimating tool and database will be developed to assist Consultant Managers in developing independent estimates. The tool will include a spreadsheet type layout to help estimate hours needed to perform Base Scope of Services tasks. In addition, for each task (or group of tasks) historic data will be available which will enable the Consultant Manager to complete more accurate, independent estimates.

URGENCY / EXPECTED BENEFITS

It's important to progress this project because of the potential to save money on Design Consultant Contracts. The estimating tool will provide historic information and assistance to the Consultant Manager. This additional information will enable Consultant Managers to more efficiently estimate level of effort and identify costs. It's expected this tool will save the Consultant Manager time during the negotiations process.

FUNDING

\$200,000 has been budgeted for this project. New York State believes this is a reasonable estimate for the total cost of the work being requested.

The net cost to New York State is one of the selection criteria. When compared to competing proposals, a proposal that requires fewer New York State dollars will receive a higher score on the cost component of the selection criteria. The net cost to New York State could be reduced through the proposer's internal efficiencies (fewer hours per task and/or lower cost per hour) or through additional funds contributed to the project by sources other than New York State funds.

Proposals with a New York State cost over the budgeted amount will also be considered,

provided the New York State cost does not exceed the budget estimate by more than 10%. (Note: Cost-sharing funds may increase the total project cost further.)

RESEARCH PERIOD

It is expected that this research will require 18 months to complete.

SPECIAL NOTES

- **Expressions of interest are requested by August 10, 2007.** These expressions should be emailed to Paul Hoole at phoole@dot.state.ny.us and Deborah Mooney at dmooney@dot.state.ny.us.
- **Proposals are due by close of business, September 14, 2007.** NYSDOT has a contract in place with three research consortia. This Request for Proposals is being offered to the members of the UTRC consortium only. Members should submit proposals through the administrators of the consortium. The supplemental agreement approved by NYSDOT via this RFP will be between NYSDOT and the UTRC consortium. The consortium shall sub-contract with the selected proposing Institute of Higher Education Services. The receipt of a pdf copy of the proposal by NYSDOT on or before the above due date is satisfactory, providing **eleven (11) hard copies** follow within a week.
- **The designated contacts for this solicitation are Paul Hoole and Deborah Mooney.** Questions seeking clarification on the RFP should be e-mailed by close of business August 31, 2007 to: phoole@dot.state.ny.us and dmooney@dot.state.ny.us [See special note on Lobbying Law.]
- **Lobbying Law:** 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.NYS DOT.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 the “designated contact.”

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 New York State solicitation for four years.

- Proposals should indicate direct and indirect costs, hourly rates and hours by task, travel costs, and material costs to assist NYSDOT 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.
- The final report on the research will be expected to contain as a minimum the information described in Attachment A, *Requirements for the Final Report*.
- Proposals, where the New York State costs total more than 10% over the budgeted cost, will not be considered for selection. If a potential Principal Investigator believes the research cannot be reasonably conducted without an increase in the budget, she/he should write to:

Paul Hoole, Director
Research and Policy Studies Section, 6th Floor
New York State Department of Transportation
50 Wolf Road
Albany, NY 12232

If a sufficient number of potential Principal Investigators indicated in writing that they believe the research cannot be reasonably conducted within the funding constraints specified and there are only a limited number of proposals submitted within the funding constraints, New York State reserves the option of not proceeding with the work or revising the budget estimate and issuing a new Request for Proposals.

- Following the project kick-off meeting, and any subsequent project meetings, the Principal Investigator shall provide draft minutes for review by NYSDOT within one week of the meeting. The Principal Investigator will revise the minutes, based upon the comments received, and forward final meeting minutes in Microsoft Word format to NYSDOT within one week of receiving the comments.
- Quarterly reports in Microsoft Word format will be required for the duration of the research. The reports will, at a minimum, describe the accomplishments in the most recent quarter, provide an update on the budget and schedule, describe the activities expected to be accomplished in the next quarter, and list the items currently required by the researchers from NYSDOT.
- The existing estimating tool is an MS Excel-based working copy developed by in-house staff. NYDOT has started an initiative to use Primavera software for project and program management systems. The final research report shall include a finding describing the estimating tool's compatibility with Primavera Software.

- The estimating tool developed (but not the data contained therein) in this research project may be shared with other Agencies. New York State is the sole owner of any and all property rights in the estimating tool, data, software, source code, content, passwords, manuals, look-and-feel, training materials, and any and all other work products developed under this RFP or its supplements.
- All data used in this research project is considered **confidential** and may not be shared with persons or firms not engaged in the project. Existing project files are not to be removed from State facilities during the course of the research project. Notwithstanding any language to the contrary contained in any contracts with the Research Consortia or elsewhere, no reports, summaries or other product of this research may be disseminated or published without the express written consent of NYSDOT.
- Researchers currently engaged in NYSDOT design contracts are restricted from participation in this project.
- Researchers selected for this project will be ineligible to participate in existing and future NYDOT design contracts until five years after the completion of this research project.
- Regarding confidentiality and certain restrictions or limitations listed above, NYSDOT will discuss any items of concern before a final contract is signed.

CRITERIA FOR SELECTION

Expertise / Understanding / Approach (Weight: 60%)

Expertise: What is the extent of the relevant experience of the Principal Investigator? What is the extent of the relevant experience of others who will be involved in the research. The research team should be experienced in highway and bridge design projects as well as large data collection/analysis projects.

Understanding of the Problem: Does the proposal reflect an understanding of the problem and its relevance to New York State? Does the proposal reflect an understanding of existing data and the current state of knowledge in New York State?

Approach: Is the proposed approach clear, especially in how it will build upon and enhance the state of knowledge in New York State? Will it yield the deliverables called for in the RFP? Does the approach show insight that will lead to results that will sufficiently assist New York State in addressing the problem? Is the proposed approach practical given the schedule and total budget? Will the proposed research draw upon all critical sources of pertinent information?

Investigators Previous Experience with Similar Projects (Weight 20%)

Successful completion of previous projects by the Investigator(s) will be considered. These projects should be in the area of expertise required for successful completion of this project, such as bridge inspection, structural engineering, and seismic engineering.

Cost to New York State (Weight 20%)

The lower the New York State cost, the greater consideration a proposal will receive.

Requirements for the Final Report

Copies of Report – Twenty-five (25) copies of a bound final report shall be provided at the conclusion of the research study. A pdf copy of the report is required as well. NYSDOT will own the product. All computer codes and passwords will be provided by the Consultant to NYSDOT. The Consultant will provide any and all codes to enable NYSDOT to modify and change computer codes as needed in the future. Training presentation materials will also be turned over to NYSDOT upon completion.

Required Organization for the Final Report

Title Page - that contains:

- the research number assigned by Policy and Strategy Division;
- the name of the research study as stated in the contract;
- the words “Final Report”;
- the date (month & year) the final report is finalized;
- the name(s) of the consultant(s) / principal investigator(s), along with the name of the organization(s) they represent and their address(es); and,
- if the report has a security classification, it shall be noted on the title page.

Disclaimer - as follows:

DISCLAIMER

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the New York State Department of Transportation, the United States Department of Transportation, or the Federal Highway Administration. This report does not constitute a standard, specification, regulation, product endorsement, or an endorsement of manufacturers.

Form DOT F 1700.7 – A copy of USDOT form DOT F 1700.7

Executive Summary

Introduction – a discussion of the problem, its background, a concise history of research previously completed on the topic, and a discussion of what NYSDOT policies, procedures, and practices are currently in place related to the research topic.

Research Method – a description of the methods used in conducting the research

Findings and Conclusions – a discussion on the analysis of the data (findings) and the conclusions reached based on the findings. Suggestions for additional research, if appropriate, would appear in this section.

Statement on Implementation – the statement shall discuss the potential for implementation, along with what resources and actions will be required to have the benefits of the research fully achieved.

Appendices – as appropriate