A REQUEST FOR PROPOSAL
FOR
PROFESSIONAL SERVICES CONTRACT

Department of Highways
Professional Services Procurement Bulletin 2022-09
Statewide Planning Traffic Modeling Services

This document constitutes a Request for Proposals for a Professional Service Contract from qualified individuals and organizations to furnish those services as described herein for the Commonwealth of Kentucky, Department of Highways.

I. PROJECT DESCRIPTION

This statewide contract is to provide necessary Statewide Planning Traffic Modeling Services. Three (3) consultants will be selected to provide these services on an as-needed basis for two (2) years.

II. PROJECT INFORMATION

Project Manager -   Scott Thomson, P.E.
User Division -   Planning
Approximate Fee - $500,000 per contract (Upset Limit)
                      Work will be assigned via Letter Agreement, not to exceed $250,000
Project Funding -   State and Federal Funds
Contract Term -   Two Years

III. PURPOSE AND NEED

To support the efforts of Design, Planning, Operations, and Environmental Analysis in developing and maintaining a safe and reliable transportation network for the Commonwealth.

IV. DBE REQUIREMENT

The Consultant team shall include a DBE Participation Plan with their Response to Announcement to help the Department meet the 11.95% DBE goal established by FHWA. The plan needs to demonstrate how DBE companies will be mentored or used to assist in the area(s) pertaining to this contract. An additional page will be allowed in the Project Approach (Section 7) to demonstrate this plan.

V. SCOPE OF WORK

Selected consultants must possess the expertise and capacity to be able to perform any and all of the travel demand modeling tasks listed below:

1. MPO, Regional, County, and Corridor Level Modeling – These models provide a basis for

supporting KYTC's traffic forecasting, planning, and air quality conformity analysis. The Division of Planning maintains HIS data extracts for model development. Some data collection or verification will be required by the consultant. Existing models may provide methodologies and transferable parameters in the development of new work.

2. Statewide Modeling – Maintenance and improvements to the Kentucky Statewide Traffic Model. The consultant shall be familiar with model calibration and validation, long distance travel, and other unique features of statewide modeling.

3. Simulation Modeling – Work shall include creating and calibrating sub area travel demand or micro simulation models.

4. Innovative Modeling Methodologies – Research, develop, and implement new modeling methodologies for the project/applications listed above while incorporating new data sources for freight, population, and employment.

Documentation of work, data sources, collection procedures, modeling techniques, calibration methodology with results and application shall be bound into a final technical model report. A colorized PDF of the final report shall also be provided.

VI. SPECIAL INSTRUCTIONS

Three (3) consultants will be selected to provide these services for a period of two (2) years with no new work assigned after two years from the Notice to Proceed, although the contract may be extended for time to complete work already assigned. Contracts will have an upset limit of $500,000. Once the upset limit is reached or the two year term has expired, services may be re-advertised and no additional Letter Agreements will be executed under the contract. Contracts will not be modified to increase the upset limit or extended for time to assign new work. No Letter Agreement shall exceed $250,000 without written approval from the State Highway Engineer.

The Selection Committee will rank and list the selected Consultants in consecutive order to determine the initial order for which projects will be assigned. Projects will generally be assigned on a rotational basis. The Department reserves the right to select one of the firms outside of the assignment order for a particular project if it is to the benefit of the Department. That firm, if selected out of order, will be skipped in the rotation when their turn comes and the regular order will be followed thereafter. The Division of Planning reserves the right to group multiple projects together as one offering if it is advantageous to the Department. The Department may also add additional work to an existing Letter Agreement, if needed. A firm will not be offered an additional project until the remaining firms on the list have been offered a project. If a firm declines to accept a project, that firm will not be eligible to accept another project until the remaining firms on the list have been offered a project. If a firm declines a project or does not respond to an invitation to perform services for a project within five (5) business days, documentation shall be provided in the project files and the next firm on the rotating list shall be offered the project.

Instructions for Response to Announcement can be found at:
https://transportation.ky.gov/ProfessionalServices/Pages/Respond-to-an-Announcement.aspx

VII. ADDITIONAL INFORMATION

Selected consultants must have the capacity to work and use the most recent version of TransCAD & TransModeler software. Also required is familiarity with GPS centerline, the Division's Highway Information System databases, and third party databases.

The modeling tasks shall consider for incorporation innovative or state of the practice approaches when developing or updating the models. If micro-simulation is required, the most recent version of TransModeler is the preferred program. Model versions as well as electronic copies of all files and guidance manual(s) shall be provided.

Travel Demand and Simulation Modeling plus Traffic Data Collection are expected activities and are covered by the Cabinet's prequalification categories listed below.

VIII. METHOD OF DESIGN OR PLANNING

The selected consultant will use a standardized TransCAD user interface and file structure for all travel demand models. Models will be evaluated based on the allowed maximum error (RMSE) by Vehicle class using all available data. TransModeler is the preferred micro-simulation software, other software may be approved on a case by case basis.

IX. PREQUALIFICATION REQUIREMENTS

To respond to this project, the Consultant team must be prequalified in the following areas by the response due date of this advertisement.

TRANSPORTATION PLANNING
- Traffic Data Collection
- Traffic Demand & Simulation Modeling

X. PROCUREMENT SCHEDULE

Dates other than Response Date are tentative and provided for information only.
- Advertisement Date: March 8, 2022
- Response Date: March 30, 2022 by 4:30 PM ET (Frankfort Time)
- First Selection Meeting: April 4, 2022
- Final Selection: April 20, 2022
- Pre-Design Conference: April 27, 2022
- Notice to Proceed: May 18, 2022

XI. PROJECT SCHEDULE

Projects will be assigned via Letter Agreement. Project Schedule Milestones will be negotiated for each assigned project and reflected in the negotiated Letter Agreement.

Expected times to complete:
- Regional & County Model Creation   16 months
- Existing model updates   6 months
- Micro-Simulations   6 months
- Statewide Model updates   12 months
- MPO model updates   10 months
- Innovative Modeling Methods   9 months

XII. <u>EVALUATION FACTORS</u>

Consultants will be evaluated by the selection committee based on the following, weighted factors:

1. Relative experience of consultant personnel assigned to project team with highway project for KYTC and/or federal, local or other state governmental agencies. (15 Points)

2. Past record of performance on projects similar in type and complexity. (15 Points)

3. Available team workload capacity to comply with project schedule. (5 Points)

4. Project approach and proposed procedures to accomplish the services for the project. (5 Points)

5. Knowledge of the locality and familiarity of the general geographic area. (5 Points)

XIII. <u>SELECTION COMMITTEE MEMBERS</u>

1. Scott Thomson, P.E., User Division
2. Jayalakshmi Balaji, P.E., User Division
3. Stephen De Witte, P.E., Secretary's Pool
4. Charlie Dale, P.E., Secretary's Pool
5. Bart Bryant, P.E., Governor's Pool