

A REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES CONTRACT

Department of Highways
Professional Services Procurement Bulletin 2022-01
Boone | 6-80 | I-75
Boone | 6-105 | US-25

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

County -	Boone
Route -	I-75
Item No. -	6-80.00
Project Description -	Reduce congestion and improve traffic mobility at the interchange of I-75 and KY-14 in Walton.
County -	Boone
Route -	US-25
Item No. -	6-105.00
Project Description -	Conduct planning study to evaluate options for reconstructing US-25 between KY-14 (Mary Grubbs highway) and KY-338 (Richwood Road).

II. PROJECT INFORMATION

Project Manager -	Dane Blackburn, P.E.
User Division -	Planning
Central Office Liaison -	Stephen De Witte, P.E.
Approximate Fee -	\$500,000 (Lump Sum) Scoping Study
Project Funding -	Federal Funds
Project Length -	Approximately 3 miles

III. PURPOSE AND NEED

The objective of the study is to identify and evaluate potential improvement options to improve safety and mobility at the I-75/KY-14 interchange (6-80), as well as identify and evaluate potential improvements to improve safety and mobility on US-25 between KY-14 and KY-16 (6-105). The highest priority improvements will be further developed in Preliminary Engineering and/or an Interchange Modification Report (IMR) as appropriate.

A [previous DNA Study](#) sufficiently evaluated improvements to US-25 between KY-16 and KY-338, so an additional study on that portion is not anticipated to be needed.

Boone County continues to be one of the fastest growing counties in Kentucky and is the fastest growing county in the OKI MPO region. Logistics and distribution industries pepper the US-25 corridor between KY-14 and KY-338, with many trucks utilizing US-25 through historic downtown Walton to reach destinations from I-75.

The KY-14 interchange with I-75 is home to a multitude of freight amenities, including truck stops and a truck wash. The close proximity of the ramp terminals to adjacent intersections combined with heavy ramp traffic form undesirable and hazardous conditions.

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. A maximum of 5 points will be considered in the Evaluation Factors for the DBE Participation Plan.

V. SCOPE OF WORK

The selected Consultant will be required to provide engineering services including, but not limited to:

1st Phase: Scoping Study

- Collect, summarize and verify existing data to create an inventory of roadway items and possible constraints.
- Gather and analyze crash data utilizing methodologies outlined in the Highway Safety Manual, KTC research, and KYTC's Data Driven Safety Analysis Implementation Plan.
- Provide and analyze traffic data for the existing and future no-build and build scenarios.
- Conduct public and local official/stakeholder involvement activities, utilizing virtual, in-person, and innovative techniques and develop Public Meeting Notebook.
- Complete red flag environmental overview and incorporate geotechnical overview.
- Draft purpose and need statement and identify project goals.
- Develop potential improvement options to improve safety and mobility at the I-75 and KY-14 interchange and surrounding area. These improvements could include small-scale maintenance and signal improvements, medium-scale spot improvements, or large-scale improvements including interchange reconstruction.
- Develop potential improvement options to improve mobility on US-25 between Mary Grubbs Highway and KY-16 (Walton Nicholson Road). These improvements should include a study of a new corridor routing both east and west of existing US-25.
- Quantify safety, mobility, economic, and/or other benefits associated with potential improvements.
- Provide planning-level cost estimates for all phases (D, R, U, C) and conduct planning-level benefit-cost analysis.
- Use ConceptStation in the concept development process, to facilitate public involvement, and as a digital deliverable to feed into OpenRoads Designer. See Section VIII. Method of Design.
- Submit a summary of findings in a Final Report.

2nd Phase: Interchange Modification Report and/or Preliminary Engineering

Pending the outcome of the scoping study, selected improvements may be advanced to include preliminary engineering, environmental services, associated studies, and final design by contract modification.

The Department also reserves the right to advertise the entire Project or parts thereof for an Interchange Modification Report, Preliminary Engineering, and/or Final Design.

VI. SPECIAL INSTRUCTIONS

The Department may retain any of the advertised services to be performed by in-house state forces.

Instructions for Response to Announcement can be found at:

<https://transportation.ky.gov/ProfessionalServices/Pages/Respond-to-an-Announcement.aspx>

KYTC will allow the following modifications to the standard response format for response to this project advertisement only:

- Section 3: Project Team Organization Chart, will be expanded to permit an additional page, either as two 8-½" x 11" pages or a single 11" x 17" page.
- Section 7 (A-C): Project Approach, as standard procedure, the DBE Participation Plan should also be included in this portion of the response with an additional page (A-D) allowed.

VII. AVAILABLE STUDIES

[DNA Study US-25 between KY-14 and KY-16 \(2020\)](#)

[DNA Study US-25 between KY-16 and KY-338 \(2020\)](#)

[Boone County Transportation Plan \(2018\)](#)

[6-206 I-75 & KY-14 Interchange Study and Simulation Model \(2006\)](#)

VIII. METHOD OF DESIGN

Interested Consultants should demonstrate their experience in utilizing the latest Bentley 3D modeling and design software to produce conceptual designs and visualizations. It is the intent of KYTC to use this project in the Digital Project Delivery pilot program, leveraging Bentley's ConceptStation to produce any planning-level modeling and estimate information and produce virtual design environments, such as that leveraged from LumenRT.

Furthermore, if the project advances to Preliminary Engineering and the selected consultant is retained for these serves, the Consultant can choose to continue the use of ConceptStation if they feel this technology will provide sufficient enough data to determine a preferred alternate(s) to advance to Final Design and satisfy the scope of the project as determined by the Project Manager. KYTC strongly recommends that the selected consultant use the most current available version of Bentley software, as outlined on the [CAD Standards website](#).

IX. ENVIRONMENTAL SERVICES

Any necessary Environmental Services will be provided by the Consultant. The initial scoping study will include an Environmental Overview with a red flag summary. Future phases of the project may include the preparation of an Environmental Document. Prequalification of various Environmental Services are required to be identified in the Consultant's Response to Announcement.

X. PHOTOGRAMMETRIC SERVICES

If photogrammetric information is not available for this project, the statewide LIDAR digital mapping is available for use.

XI. STRUCTURE DESIGN

The selected Consultant shall provide the necessary engineering services to determine needed improvements of the structures involved, if any. When the project advances to Final Design and if the selected Consultant is retained for Final Design services, the selected Consultant shall do the necessary engineering services to submit to the KYTC an Advanced Situation Folder(s) for the appropriate structure(s). The selected Consultant may be responsible for any necessary Structure Design services. Structure Design of the proposed structure(s) may be added as a Contract Modification. Prequalification in the area of Structure Design is not required to be identified in the Consultant's Response to Announcement.

XII. GEOTECHNICAL SERVICES

It is anticipated that a Geotechnical Overview will be completed by the Department as part of the scoping study; however, the selected Consultant may be required to provide all Geotechnical Services required for the project. The Preliminary Engineering contract may include preliminary geotechnical services to review available geological, mining, or other geotechnical information that could influence the selection of the preferred alternate. Geotechnical services necessary for the completion of Final Design may be added by contract modification at the appropriate time. At any time, if the Department has the capacity to provide these services, the Department may retain the advertised geotechnical services. Prequalification in the area of Geotechnical Services is not required to be identified in the Consultant's Response to Announcement.

XIII. TRAFFIC ENGINEERING

The selected Consultant will provide the analysis of the existing and proposed operations. The OKI MPO travel demand model is anticipated to be utilized in developing traffic projections. Microsimulation may be required to analyze potential improvement options, particularly at the I-75/KY-14 interchange. The selected Consultant should be prepared to utilize and analyze traffic origin-destination data purchased by OKI.

Traffic Signal Design and Lighting Design services, if necessary for the completion of Final Design, may be added by Contract Modification at the appropriate time. At any time, if the Department has the capacity to provide these services, the Department may retain the advertised traffic services.

XIV. UTILITIES

The Consultant will be responsible for a planning-level estimate of utility costs that will be reviewed by the Department for accuracy. In this or future phases, the Department will send project location maps to all potential Boone County utility contacts to determine whether they may have existing utilities within these project limits. The Department will develop the utility contact list. Facility atlas maps received for this project will be provided to the selected Consultant. The Consultant will then add the approximate location to manuscripts.

XV. PREQUALIFICATION REQUIREMENTS

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

Environmental & UST Services

- UST & Hazmat Preliminary Site Assessment (Phase 1)

Environmental Aquatic & Terrestrial Ecosystems Analysis

- Fisheries
- Botany
- Terrestrial Zoology
- Wetlands
- Freshwater Macroinvertebrates
- Water Quality

Environmental Archeology & Other Services

- Air Quality Analysis
- Prehistoric Archaeology
- Socio-Economic Analysis
- Highway Noise Analysis
- Historic Archaeology
- EIS Writing & Coordination
- Cultural-Historic Analysis
- Stream & Wetland Mitigation

Roadway Design

- Rural Roadway Design
- Advanced Traffic Engineering Design & Modeling
- Surveying
- Urban Roadway Design

Transportation Planning

- Traffic Forecasting
- Traffic Data Collection
- Advanced Transportation Planning Engineering
- Pedestrian & Bicycle Planning & Design
- Transportation Planning Engineering
- Travel Demand & Simulation Modeling
- Conceptual Transportation Planning

Traffic Engineering

- Traffic Engineering
- *Electrical Engineering Roadway Lighting** (please see note below)
- *Electrical Engineering Traffic Signals** (please see note below)

Geotechnical Services (please see note below)

- *Geotechnical Engineering**
- *Geotechnical Drilling**
- *Geotechnical Laboratory Testing**

Intelligent Transportation Systems (please see note below)

- *System Design, Deployment & Integration**

Structure Design (please see note below)

- *Spans Under 500 Feet**

Utility Design (please see note below)

- *Electrical Level 1**
- *Utility Construction Inspection **
- *Utility Preconstruction Coordination **
- *Electrical Level 2**
- *Gas Level 1**
- *Communication**
- *Water & Sewer Level 2**
- *Water & Sewer Level 1**
- *Gas Level 2**

** Note - Geotechnical, ITS, Structure Design, Utility Design, and some Traffic Engineering prequalifications are not required with the initial proposal as it is uncertain to the extent practicable if they are necessary. Should any of these services become necessary during the delivery of the project in this or future phases, the selected Consultant team must obtain the required qualifications before providing those services or bring on a prequalified subconsultant at that time.*

XVI. PROCUREMENT SCHEDULE

Dates other than Response Date are tentative and provided for information only.

- Advertisement Date: July 13, 2021
- Response Date: August 4, 2021 by 4:30 PM ET (Frankfort Time)
- First Selection: August 9, 2021
- Final Selection: August 25, 2021
- Pre-Design Conference: September 1, 2021
- Consultant Fee Proposal: September 10, 2021
- Contract Negotiations: September 22, 2021
- Notice To Proceed: October 13, 2021

XVII. PROJECT SCHEDULE

- Existing Conditions Meeting – December 2021
- Initial Improvement Concepts – February 2022
- Refined Improvement Concepts – May 2022
- Final Scoping Report – August 2022
- Advancement of Selected Concepts/Begin IMR – September 2022

XVIII. EVALUATION FACTORS

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

1. Project approach and proposed procedures to accomplish the services for the project. (25 Points)
2. 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)
3. Past record of performance on projects similar in type and complexity. (15 Points)
4. Capacity to comply with project schedule. (5 Points)
5. DBE Participation Plan (5 Points)
6. Knowledge of the locality and familiarity of the general geographic area. (5 Points)

XIX. SELECTION COMMITTEE MEMBERS

1. Dane Blackburn, P.E., User Division
2. Mike Bezold, P.E., User Division
3. Stephen De Witte, P.E., Secretary's Pool
4. Charlie Dale, P.E., Secretary's Pool
5. Cindy Evensen, Governor's Pool

