

A REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES CONTRACT

Department of Highways Professional Services Procurement Bulletin 2022-12 Statewide Underwater Bridge Inspection 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 Underwater Bridge Inspection Services. Three (3) consultants will be selected to provide these services to provide full in-depth underwater structural inspection services of the substructure elements of approximately 410 various statewide bridges over a five-year period (2023 to 2027).

- Underwater Bridge Inspection Package #1 Districts 1-4 141 inspections
- Underwater Bridge Inspection Package #2 Districts 5-8 150 inspections
- Underwater Bridge Inspection Package #3 Districts 9-12 119 inspections

II. PROJECT INFORMATION

Project Manager - Erin Van Zee, P.E.
User Division - Maintenance
Approximate Fee - Inspection Package #1 Districts 1-4) – \$1,300,000
Inspection Package #2 (Districts 5-8) – \$1,400,000
Inspection Package #3 (Districts 9-12) – \$1,100,000
(Cost Plus Fixed Fee)
Project Funding - Federal Funds
Contract Term - Five Years

III. PURPOSE AND NEED

Perform underwater structural inspections of bridges to evaluate bridge scour, determine the underwater structural condition of bridge substructures, and channel cross sections. Provide bridge scour countermeasures design plans and specifications. Evaluation of observed scour and streambed stability within the limits of the bridge.

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. No additional points will be provided in the Evaluation Factors for the DBE Participation Plan.

V. SCOPE OF WORK

The selected Consultants will be required to perform underwater structural inspections of the bridges in accordance with current NBIS standards as specified by the Division of Maintenance and KYTC's Bridge Inspection Procedures Manual. The Consultants will perform emergency UW bridge inspection services as defined by KYTC. The inspection reports shall be in digital format consistent with recent reports and compatible with the Division of Maintenance's current software and documenting procedures. The bridge inspection reporting will include entering the completed underwater inspection reports, summary notes, pertinent underwater photographs, National Bridge Inspection (NBI) coding information in accordance with the Coding Guide (Item 60 or 62, 61, 92B, 93B) and Specifications for the National Bridge Inventory (more guidance forthcoming), determine observed scour, and element level condition ratings into BrM. In some cases, a bridge may require a full two-year (or one year) routine NBI and element level inspection in addition to the underwater inspection. The Consultants shall provide underwater acoustic images (if required), GPS/Hydrographic surveys, and equivalent images of the scour conditions as noted below in the hydrographic survey requirements. In addition, documentation will include chart-recorded channel cross section data, graphs, and digital photographs. The Consultants shall expedite notification to KYTC due to critical bridge inspection findings. The final underwater inspection report shall bear an engineer's seal that is licensed in the State of Kentucky. The Kentucky Transportation Cabinet's Central Office and each District Office where UW work is performed must be notified before each scheduled underwater dive(s). The lead UW diver must be a licensed professional engineer in the State of Kentucky. **All diving operations shall be conducted in accordance with 29 CFR Part 1910, Subpart T- OSHA Commercial Diving Operations (including Directive Number CPL 02-00-151), as well as the International Consensus Standards for Commercial Diving and Underwater Operations, Current Edition, published by the Association Diving Contractors International (ADCI). Additionally, all diving personnel shall possess valid commercial diver certification cards issued by the ADCI.** All divers must be equipped to meet or exceed all KYTC, State, OSHA, and Federal underwater diver safety requirements. KYTC requests a copy of UW divers diving certificates, comprehensive bridge inspection certificates, and comprehensive underwater bridge inspection certificates. KYTC reserves the right to modify this UW contract to add or remove bridges. Consultants will be selected by the Project Manager for a respective package to be advantageous to the Commonwealth.

Hydrographic Survey Requirements (Ohio, Tennessee, LBL, Cumberland, Big Sandy, Barren, Green, and Kentucky River Bridges)

All surveys shall be done using a single-beam echo sounder unless otherwise specified due to size or depth. The following requirements shall be considered:

- The surveys shall be performed under the direct supervision of a licensed engineer in the State of Kentucky who shall stamp and sign all deliverables.
- Surveys shall extend 50 feet upstream and downstream of the bridge fascia.
- Bathymetric data shall be collected using a 200 kHz single beam echo sounder unless otherwise specified.
- The survey shall use RTK (Real Time Kinematic) positioning in the field and all positioning data shall be post processed.

Deliverables

The following deliverables will be required for each hydrographic survey.

- The deliverables for each survey will include electronic copies in portable document format (PDF) including contoured plan views of the survey area in one foot, two foot or five foot intervals as specified and channel cross-sections at specified intervals.

Other project deliverables will be covered and discussed in more detail during the scoping meeting, which should include representation from Central Office as well as District personnel.

Dam Valve Inspections Wood Creek and Lynnville (Included with Package 3)

Divers are required to inspect and operate underwater drawdown valves to keep the valves in good working order. The valves are located at Lake Linville in Rockcastle County and Wood Creek Lake in Laurel County. There is potential for use at other locations, as needed.

VI. SPECIAL INSTRUCTIONS

The Department reserves the option to modify the selected Consultants' agreement to include any necessary engineering and/or related services for this project. The firm(s) or one of their subconsultants must at that time be prequalified by the Department in the required area(s).

Three (3) consultants will be selected to provide these services for a period of five (5) years with no new work assigned after five (5) years from the Notice to Proceed, although the contract may be extended for time to complete work already assigned. The Consultant ranked first will be awarded first choice of the three (3) packages. The consultant ranked second will be awarded the choice of the remaining (2) packages. The consultant ranked third will be awarded the remaining package. Consultants must be prepared to make selection at the time of notification of ranking by the Selection Committee.

The Department may modify the selected Consultant's agreement to include additional bridge inspections and/or necessary bridge maintenance engineering services associated for this project. The additional related engineering services may be requested up to a contract upset limit of \$200,000 above the initial contract amount. No additional service contract shall exceed \$200,000 without written approval from the State Highway Engineer.

Any underwater bridge inspection diver performing the underwater inspection must have completed a comprehensive underwater bridge inspection training. Each Qualified Team Leader for the underwater inspection and/or routine inspection must be a Kentucky licensed professional engineer, a certified diver, and completed both a comprehensive bridge inspection training and comprehensive underwater bridge inspection training.

Instructions for Response to Announcement can be found at:

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

VII. STRUCTURES TO BE INSPECTED

[Statewide Underwater Bridge Inspections List – 2023-2027](#)

The list of KYTC structures for underwater inspection are preliminary and may be added or removed as needed. KYTC reserves the option to modify the Consultant agreement to include

additional underwater inspections and scour assessments to the package listed above. The Consultant shall separate the costs of each underwater bridge inspection and include the bridge identification number for all bridges for each fiscal year.

VIII. PREQUALIFICATION REQUIREMENTS

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

MAINTENANCE - BRIDGE MAINTENANCE SERVICES

- Underwater Structure Inspection
- In-Depth Structure Inspection

IX. PROCUREMENT SCHEDULE

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

- Advertisement Date: June 14, 2022
- Response Date: July 6, 2022 by 4:30 PM ET (Frankfort Time)
- First Selection Meeting: July 11, 2022
- Final Selection: July 27, 2022
- Pre-Design Conference: August 3, 2022
- Fee Proposal: August 12, 2022
- Contract Negotiations: August 24, 2022
- Notice to Proceed: September 14, 2022

X. PROJECT SCHEDULE

Draft Report of Inspection Services

- Within 30 calendar days after inspection (BrM Inspection entry within 7 days after initial field inspection)

Final Inspection Report

- The District Office has 14 calendar days after the draft report is submitted to review, submit report changes, and notify Central Office and the Consultant by email

Upload Inspection Report

- The Consultant has 10 calendar days to make all report changes from Central Office and the District Office, to finalize the report and upload into BrM

Completion of All Underwater Engineering Services

- 54 calendar days

XI. EVALUATION FACTORS

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

1. In-house capacity to perform the required inspection services. (30 Points)

2. Experience with NBIS safety inspections. (20 Points)
3. Experience with element-level bridge inspections. (20 Points)
4. Past record of performance on projects similar in type and complexity. (20 Points)
5. Demonstrate familiarity with regulatory requirements and KYTC procedures for underwater inspection of bridges (Certified Diver and KY Licensed Professional Engineer) with experience in underwater bridge inspections and scour evaluations. (20 Points)
6. Project approach to completing the assigned task. (10 Points)
7. Available team workload capacity to comply with project schedule. (10 Points)
8. Computer development skills with emphasis on new and innovative technology. (5 points)

XII. SELECTION COMMITTEE MEMBERS

1. Erin Van Zee, P.E., User Division
2. James Edmunds, P.E., User Division
3. Stephen De Witte, P.E., Secretary's Pool
4. Larry Krueger, P.E., Secretary's Pool
5. Cindy Evensen, Governor's Pool