A REQUEST FOR PROPOSAL
FOR
PROFESSIONAL SERVICES CONTRACT

Department of Highways
Professional Services Procurement Bulletin 2023-08
Statewide Aviation Pavement Engineering

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 Aviation Pavement Engineering. One (1) consultant will be selected to provide these services on an as-needed basis for two years.

II. PROJECT INFORMATION

Project Manager -	Wayne Simpson, P.E.
User Division -	KY Department of Aviation
Approximate Fee -	$400,000 per contract (Upset Limit)
	Work will be assigned via Letter Agreement, not to exceed $100,000
Project Funding -	State and Federal Funds
Contract Term -	Two Years

III. PURPOSE AND NEED

Assist the KY Department of Aviation with pavement engineering analyses and services beyond the expertise and/or time constraints of existing personnel.

IV. DBE REQUIREMENT

The Consultant team may 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 would demonstrate how DBE companies will be mentored or used to assist in the area(s) pertaining to this contract. If included, an additional page will be allowed in the Project Approach (Section 7) to exhibit this plan. No additional points will be provided in the Evaluation Factors for the DBE Participation Plan.

V. SCOPE OF WORK

The selected Consultant will be required to provide pavement engineering services at the request of the Department of Aviation at public-owned airports throughout the Commonwealth on an as-needed basis, provide pavement engineering assistance to the Department of Aviation for development of pavement specifications and pavement policy documents for implementation by

the Department of Aviation, and assist the Department of Aviation in cataloging, evaluating and monitoring pavements with innovative / experimental features at General Aviation Airports and state owned airports. Other pavement engineering work may be assigned by the Department of Aviation in order to facilitate implementation of pavement related projects funded by the Department of Aviation.

Airport pavements differ from highway pavements in that most of the runway and taxiway gets little (if any) traffic. Perhaps 25-40% of the pavement surface area experiences any wheeled traffic on a regular basis. Thus, airport pavements are subject to both wheel traffic loads as well as environmentally induced distresses associated with heat, sun and weather, which contributes to oxidization and related cracking. The primary distress that the Kentucky Department of Aviation has observed in recent years for asphalt runways has been asphalt stripping, raveling and micro-cracking which are more related to environmental and weather-related conditions as opposed to load related distresses from aircraft gear loads.

Aprons and helicopter pads also represent more severe loading conditions and may need to be addressed separately in asphalt pavement specifications and policy.

The Department of Aviation recently funded development of a revised Asphalt Pavement Mixture Specification for General Aviation Airports. This specification was recently used in construction of an asphalt overlay at a General Aviation Airport in Kentucky as a pilot project and currently is being evaluated by the Department of Aviation. The scope of this project will involve further refinement of the proposed specification to ensure that the specification covers the broad range of conditions likely to be encountered across the broad range of conditions for General Aviation Airports. The Department of Aviation intends to implement various versions of this specification specifically modified to reflect the unique conditions for each airport for a series of pilot projects. Over the next two years, we hope to fund pilot projects for 2-3 General Aviation airports geographically distributed across the state.

Specific tasks associated with this project may include but are not limited to:

- **Refinement of the *Asphalt Pavement Mixture Specification for General Aviation Airports* developed in 2021 and 2022 for implementation with pilot projects using the specification**.

  - ✓ Specific tasks associated with implementation of the specification for the pilot projects include:

    - ❖ Evaluation of the pre-existing conditions for the pavement.
    - ❖ Review of available pavement management data
    - ❖ A detailed pavement condition assessment identifying the extent and severity of existing pavement distresses and how best the specifications for asphalt pavement need to be refined to specifically address the unique conditions for each pilot project.
      - ➢ Include structural pavement testing (coring, NDT, etc.) to determine more specifically the load carrying capacity of the existing pavement and underlying base and subgrade.
    - ❖ Work with the local Airport Boards and their engineers in incorporating the specifications into the bidding documents for each pilot project.
    - ❖ Document the results of the above into brief memorandum reports for the Department of Aviation.

- ❖ Work with the Department of Aviation to coordinate with the FAA regarding implementation of the new specification for trial implementation with FAA funding for selected General Aviation Airports in Kentucky with the ultimate goal of obtaining FAA concurrence for use with federally funded projects.

- **Develop implementation guidelines for the use of the *Asphalt Pavement Mixture Specification for General Aviation Airports***

- **The Department of Aviation also frequently works with local Airport Boards for General Aviation Airports in implementing innovative pavement treatments and/or materials. The Department of Aviation currently is inventorying innovative / experimental pavement features that currently have been used at General Aviation airports in Kentucky and documenting their performance. The Department of Aviation wishes to continue this effort with this project.**

  - ✓ These include features / treatments such as:

    - ❖ Projects using new specifications and construction techniques,
    - ❖ Reflective crack relief layers,
    - ❖ Fibers in asphalt mixtures,
    - ❖ Geogrids in asphalt pavement mixtures,
    - ❖ Paving fabrics, and
    - ❖ Other pavement conditions / features as may be assigned.

  - ✓ Specific tasks associated with evaluation of innovative and experimental pavement features include:

    - ❖ Coordinate with the KYTC Department of Aviation Statewide Pavement Management Consultant to correlate pavement management data with specific unique or innovative pavement engineering features and treatments.
    - ❖ As appropriate, complete field reviews / assessment of pavement conditions to correlate pavement performance with specific pavement features and treatments.
    - ❖ Document findings for the Kentucky Department of Aviation on the status of these unique or experimental features.

- **Develop asphalt pavement preservation and maintenance guidelines for General Aviation Airports.**

  - ✓ Specific tasks associated with this activity include:

    - ❖ When is the best time for seal coats?
    - ❖ When is the best time for sealing cracks and what cracks should be sealed and what cracks should be left alone?
    - ❖ When is the best time for milling and resurfacing?
    - ❖ What are the conditions where milling and resurfacing is not appropriate?
    - ❖ Best practices for pavement rehabilitation – When is more than just an overlay needed.

- **Work with Kentucky Department of Aviation Staff to form a Pavement Engineering Advisory Committee to work with the paving industry for review of proposed pavement specifications and policy recommendations for improved cost effectiveness of asphalt**

paving at General Aviation Airports in Kentucky

- **Evaluate the need for similar analyses and specifications for concrete pavements.**

VI. SPECIAL INSTRUCTIONS

One (1) consultant 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 $400,000. 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 $100,000 without written approval from the State Highway Engineer.

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

VII. PREQUALIFICATION REQUIREMENTS

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

AVIATION
- Airport Design

ROADWAY DESIGN
- Surveying

VIII. PROCUREMENT SCHEDULE

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

- Advertisement Date: February 14, 2023
- Response Date: March 8, 2023 by 4:30 PM ET (Frankfort Time)
- First Selection Meeting: March 13, 2023
- Final Selection: March 28, 2023
- Pre-Design Conference: April 5, 2023
- Notice to Proceed: April 26, 2023

IX. PROJECT SCHEDULE

Individual project schedules will be defined by Letter Agreement on a project-by-project basis.

Completion of All Services – 2 years from Notice to Proceed

X. EVALUATION FACTORS

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 pavement engineering experience on projects for Kentucky Department of Aviation and/or federal, local or other state governmental agencies. (40 points)

2. Relative experience of consultant personnel assigned to project team with aviation engineering projects for Kentucky Department of Aviation and/or federal, local or other state governmental agencies. (40 points)

3. Knowledge of, and experience with, various procedures (FAA, FHWA, AASHTO, and Kentucky) and criteria regarding to pavement engineering for aviation projects. (10 points)

4. Knowledge of, and experience at, airports within the KY Air Transportation System. (5 points)

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

XI. SELECTION COMMITTEE MEMBERS

1. Wayne Simpson, P.E., User Division
2. Joe Carter, User Division
3. Joseph Van Zee, P.E., Secretary's Pool
4. Erika Drury, P.E., Secretary's Pool
5. Bart Bryant, P.E., Governor's Pool