# BROAD AGENCY ANNOUNCEMENT

## Federal Highway Administration
## Office of Acquisition and Grants Management

## Research to Support FHWA's Office of Infrastructure Research and Development

**Announcement Posted: 09/13/2023**
**Amendment 0002: 06/09/2026**

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# 1 INTRODUCTION AND OVERVIEW

This Broad Agency Announcement (BAA) is developed in accordance with Federal Acquisition Regulation (FAR) 6.~~102~~101(~~d~~b)(~~2~~3)(ii) and FAR 35.~~016~~102. A formal Request for Proposals or other solicitations regarding this announcement will not be issued. This BAA is an expression of interest only and does not commit the Government to pay any proposal preparation costs. All responsible sources capable of satisfying the Government's needs may submit a proposal. The Government reserves the right to award either contracts, assistance agreements, or other instruments determined to be of benefit to the Government in achieving the goals of this program.

**PLEASE NOTE: THIS IS AN OPEN BAA. FHWA ANTICPATES BAA CALLS FOR A PERIOD OF 60 MONTHS. CALLS FOR CONCEPT PAPERS ARE ANTICIPATED TO BE ISSUED ANNUALLY VIA ~~AN UPDATED APPENDIX C~~SAM.gov.**

## 1.1 Background

The Federal Highway Administration (FHWA) Office of Infrastructure Research and Development (R&D) conducts and oversees R&D programs and projects that address critical highway infrastructure needs and priorities of national importance. Studies focus on the design, materials, construction, operation, and preservation of highway pavements, bridges, culverts, tunnels, and other structures. In addition, the Office of Infrastructure R&D provides expert technical assistance to other FHWA offices, other Federal agencies, State and local transportation organizations, industry, and academic institutions.

Through an integrated and interdisciplinary research approach, the Office of Infrastructure R&D provides state-of-the-art knowledge and tools with the goal of improving the safety, performance, and cost effectiveness of the Nation's highway infrastructure, while minimizing the impacts that highway construction, operations, maintenance, and rehabilitation may have on the environment. The contributions of stakeholders from across the highway infrastructure spectrum in the development and execution of multiyear R&D plans and roadmaps are key to the success of the office.

## 1.2 Legislative Authority

The legislative authority for this BAA is found under 23 U.S.C. 502 – Surface Transportation Research, Development, and Technology, paragraph (b)(3)(C), which state: "The Secretary may carry out research, development, and technology transfer activities related to transportation by making grants to, or entering into contracts and cooperative agreements with one or more of the following: National Academy of Sciences, the American Association of State Highway and Transportation Officials, any Federal laboratory, Federal agency, authority, association, institution, for-profit or nonprofit corporation, organization, foreign country, or any other person."

## 1.3 Purpose

The purpose of this BAA is to solicit a variety of solutions that will support the strategic objectives of the FHWA Office of Infrastructure Research and Development and the tactical needs of the infrastructure program areas:

- Advanced Digital Construction
- Transportation Resilience and Safety
- Enhanced Pavement Management
- Bridge Preservation and Management
- Highway Construction Safety
- Pavement Modeling and Performance

Additional program areas may be solicited in the future, if needed.

Projects shall develop technologies that address FHWA current strategic goals and objectives (FY 2022–2026). FHWA's strategic goals are as following:

- Safety: Make our transportation system safter for all people. Advance a future without transportation-related serious injuries and fatalities.
- Economic Strength and Global Competitiveness: Grow an inclusive and sustainable economy. Invest in our transportation system to provide American workers and businesses reliable and efficient access to resources markets, and good-paying jobs.
- Equity: Reduce inequities across our transportation system and the communities

they affect. Support and engage people and communities to promote safe, affordable, accessible, and multimodal access to opportunities and services while reducing transportation related disparities, adverse community impacts, and health effects.

- Climate and Sustainability: Tackle the climate crisis by ensuring that transportation plays a central role in the solution. Substantially reduce greenhouse gas emissions and transportation-related pollution and build more resilient and sustainable transportation systems to benefit and protect communities.
- Transformation: Design for the future. Invest in purpose-driven research and innovation to meet the challenge of the present and modernize a transportation system of the future that serves everyone today and in the decades to come.
- Organizational Excellence: Strengthen our world-class organization. Advance the Department's mission by establishing policies, processes, and an inclusive and innovative culture to effectively serve communities and responsibly steward the public's resources.

FHWA's strategic goals and objectives are described in more detail in the most current FHWA Strategic Plan as shown in Appendix F.

FHWA's research, development, and technology (RD&T) program is the conduit for achieving the strategic goals of FHWA and USDOT. The FHWA RD&T program is responsible for conducting RD&T activities that produce a clear public benefit; support Federal stewardship roles; meet and address current and emerging needs; ensure the coordination of highway RD&T activities; and deliver solutions to meet current and future challenges.

Through coordination with other research partners, FHWA's role is also to conduct research to maximize value and avoid duplication by focusing on innovations with broad applicability and that leverage research investments through programs with successful technology transfer. The RD&T program covers the entire innovation lifecycle: setting an agenda, conducting R&D, testing and evaluating technologies, and deploying and evaluating market-ready technologies and innovations. This holistic approach to innovation allows FHWA to serve as national transportation leaders, thus the Agency can provide a strategic approach in shaping the direction of innovation development that supports national interests. This leadership ensures that in

working with partners, FHWA pursues a transportation future aligned with the strategic goals of the Department and promotes the most safe and efficient transportation system for taxpayers.

FHWA's core RD&T program activities improve safety, reduce congestion, enhance infrastructure design and construction, invest in transformative solutions, and provide data and analyses to decisionmakers throughout the transportation community. The infrastructure area supports safety, durability, resilience, environmental sustainability, and asset management. FHWA infrastructure research outcomes stimulate economic growth, productivity, and competitiveness through contributions to improve mobility and accessibility.

The RD&T goals and objectives are detailed in the FHWA's Annual Modal Research Plan (AMRP). Within the AMRP context, specific areas of interest for this BAA include:

1. Construction and Project Management,
2. Infrastructure Performance,
3. Pavement and Materials, and
4. Transportation Performance Management and Asset Management.

FHWA's Construction and Project Management RD&T Program seeks to strategically advance innovative technologies and best practices to accelerate construction and improve quality and durability of as-constructed infrastructure. The program is aligned with and supports achievement of the Department's Strategic Goals. Through its effort to increase work zone safety, the Goal of Safety is supported. In support of the Economic Strength and Modernization Goal, the program contributes to improving the nation's infrastructure by improving system performance in support of the Nation's economy, as well as accelerating project delivery.

The Goal of Transformation is facilitated through the development of a modern and digitally integrated approach to construction in both rural and urban communities that foster more efficient and collaborative advanced construction techniques. The program is promoting the idea of liberating data from proprietary systems and increasing data integration throughout a project life cycle. This supports the Goal of Equity by enabling access to data for all who need it. A mantra of the data integration effort is the principle that data should be collected once and used often. This minimizes the need for additional resources to collect data and indirectly supports the Climate and Sustainability Goal.

Construction and Project Management Program activities include research and development to advance technologies and practices that accelerate highway construction, improve infrastructure quality (and therefore durability), improve project efficiencies, and ensure effective management of construction projects. The Program also aims to ensure that recipients of Federal-aid funding adopt and apply an optimized management strategy for construction delivery performance for Federal-aid projects as required by laws, regulations, guidance, Risk Based Stewardship and Oversight, and State Stewardship and Oversight Agreements. It encourages recipients to follow FHWA and State best practices, standard operating procedures, and key performance indexes to improve construction quality and reduce the risk of waste, fraud, and abuse. Investments made in research, analysis, technology transfer and training are ensuring that major projects are timely and within budget, and that highway construction is using best practices and leveraging advanced digital techniques to accelerate project delivery and increase the safety and efficiency of highway construction.

FHWA's Infrastructure Performance RD&T Program seeks to advance understanding of how and why highway pavements perform as they do, knowledge that will enable the improved durability and extended infrastructure life as called for in the most recent transportation bill. The LTIP research is central to FHWA's work as it pertains to advancing highway safety through the identification of effective infrastructure design and long lasting construction materials reducing maintenance intervals and consequently necessitating less traffic intrusion; maintaining a high performing highway infrastructure to enable further economic growth by providing an efficient system for moving goods and people; and validating existing and new resilient construction materials to enhance the Agency's capacity to provide climate solutions to future natural disasters. The ultimate goal is more effective management of highway infrastructure performance. Intermediate goals include improved knowledge and understanding of pavement performance to inform infrastructure design and management decisions, improved tools, technologies and practices for assessing pavements, and more reliable performance prediction models.

FHWA's Pavement and Materials RD&T Program seeks to advance a coordinated and cohesive approach to research, development and technology activities focused on providing tools, technologies and guidance, and supporting updated policies, to improve the safety, durability, sustainability and cost effectiveness of highway pavements, and the materials from which highway infrastructure is constructed. The Pavement & Materials RD&T Program undertakes

research toward improved pavement materials, as well as improve design and analysis practices. The Program seeks to develop innovative and robust technologies, tools, analysis methodologies, and best practices recommendations to support highway agencies in identifying optimized use of materials, sequence of treatment actions to enhance longevity, safety, and cost-effectively maintain their pavement network over the lifecycle. Best practice recommendations, tools and technologies are desired to facilitate consideration of sustainability and resiliency during pavement design and construction and assessment of construction quality on long term performance.

Research conducted in this program will address future pavement exigencies and advance technologies, including the impact of climate change, autonomous vehicles, shrinking work force, and changing material slates, availability, and use of recycle materials and their environmental impact. Research to enhance the assessment and selection of materials, mixtures, and pavements to advance low carbon footprint solutions will investigate and develop test procedures and analysis methodologies for the engineering and environmental performance of innovative and resource responsible materials for use in pavements as an environmentally beneficial pathway for the use of these waste materials to reduce use of virgin resources and minimize environmental and Green House Gas (GHG) impacts. Performance specifications and test methods will be advanced that address the clarity of their relationship to performance and improve their accuracy. Research on novel pavement assessments and performance prediction for cost effective maintenance and preservation over the pavement life cycle and maintain state of good repair to provide pavements that require fewer maintenance activities and resulting construction related GHG emissions. The Program will also continue to develop approaches for incorporating climate change impacts as part of pavement materials selection, design, maintenance, and management activities. Activities also include the development and application of methods, tools, techniques, including NDE technologies, and best practices for the effective and efficient assessment of in-service pavements to enable informed decisions in the management of pavements over the whole-life cycle and design and construction of safe, sustainable, resilience and long-lasting pavement structures.

The Transportation Performance Management and Asset Management (TPM and TAM) RD&T Program seeks to provide tools, innovations, technologies and developing guidance and policies to advance the effective management of highway infrastructure and system performance. RD&T activities include identification and advancement of specific strategies to enhance TPM and

TAM investment decision-making; to improve or preserve the condition of our highway infrastructure assets in a state of good repair and improve the performance of the system; and the development and deployment of TPM and TAM training, technology transfer and support initiatives.

FHWA's TPM and TAM Program is guided by the TPM Implementation Plan, which is publicly available on FHWA's TPM website, and the TPM/TAM Roadmap. Investing in these activities will support State DOTs, MPOs, other transportation partners, and industry to implement effective practices to manage the performance and condition of the highway system and with a goal to preserve our assets and minimize the whole life costs; operate in a financially sustainable manner; and provide a framework to improve performance on a long-term basis. The objectives of this Program directly support the USDOT's Strategic Goals by improving the condition of infrastructure assets, address risks associated with current and future environmental conditions to improve system resilience and enable the efficient and safe and equitable movement of people and goods.

Investments will modernize data extract and load processes used to complete the Integrated Transportation Information Platform (ITIP) tool needed to support performance data collection, processing and analysis; improve data visualization to communicate state and national performance; and develop guidance and deliver training and educational resources to support State and MPO implementation of TPM and TAM principles and practices to improve or preserve asset condition and system performance, including address risks to improve system resiliency. The program seeks specific outputs and advancements as follows: Advancing risk analysis to directly address system resiliency; the application of short term TPM targets and long-term goals for improved long term system performance, improve asset life-cycle planning; improved communication, understanding, and application of performance data for developing investment strategies for managing the NHS.

Specific research topics for this BAA are contained in **Appendix C**. Additional research topics may be announced at any time during the open period of this BAA.

# 2 PROGRAM GUIDELINES

By participating in this BAA, the Offeror agrees that if awarded a Firm-Fixed-Price type contract with milestone payments, the Government's liability for any effort performed shall not exceed the payment amount of the preceding milestone. The Offeror shall propose and implement a delivery method consistent with this requirement. If it is determined that the Offeror's performance under the contract is not progressing to the satisfaction of the Government, the Government retains the right to commence a process to modify or end performance. This process will require a 60-day notice and may be used in conjunction with FAR clause 52.242-15, Stop-Work Order.

## 2.1 Schedule

The open period for BAA Concept Papers is defined in ~~**Appendix C**~~**each issued call**. The FHWA may modify the schedule or research topics. If such changes are made, ~~**Appendix C**~~**the call** will be amended. This BAA and ~~amendments~~ calls issued thereto will be posted to https://sam.gov/ (formerly FedBizOpps) website. It is the responsibility of the Offeror and interested parties to be aware of BAA amendments by regularly checking the website by registering to receive notifications and updates to this specific solicitation.

## 2.2 Communications Protocol

Any exchanges of information must be consistent with procurement integrity requirements of section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423, as amended) (see FAR 3.104). Communication between Offerors and FHWA is encouraged prior to and throughout the project concept paper phase. After submission of project proposals, all information exchanges will be conducted through the Contracting Officer.
Offerors are advised that any indication of interest, in the affirmative, is not meant to imply nor in any way impart an obligation on the part of the Government that an award will be forthcoming for the offered work or project.

## 2.3 Data Sources and Points of Contact

All submittals shall be delivered in electronic format (Adobe PDF) to the BAA Contracting

Officer Representative with copy to the BAA Contract Specialist and BAA Contracting Officer, via the e-mail addresses listed ~~below~~in each BAA Call. The solicitation number must be included in the subject line of the submittal email.

| | |
|---|---|
| ~~BAA Contract Specialist, Raven Merchant~~ | ~~Raven.Merchant@dot.gov~~ |
| ~~BAA Contracting Officer, Bob Brown~~ | ~~bob.p.brown@dot.gov~~ |
| ~~BAA Contracting Officer Representative, Matthew Corrigan~~ | ~~Matthew.Corrigan@dot.gov~~ |

## 2.4 Offeror Eligibility

This is an unrestricted solicitation. Any responsible source may submit a proposal for consideration, including, but not limited to, States or local governments, or organizations of State or local governments, universities or institutions of higher education, hospitals, non-profit organizations, private individuals, corporations, and businesses or commercial organizations, except that any businesses owned in whole or in part by the Federal Government are not eligible. Although businesses owned in whole or in part by the Federal Government are not eligible for direct funding they may subcontract with eligible Offerors. All Offerors must be registered on the Federal Government's System for Award Management (SAM) systems prior to project award (https://sam.gov/).

Small, Small Disadvantaged (SD), and Service-Disabled Veteran-Owned Business Concerns, and Veteran-Owned (VO) and Woman-Owned (WO), and Historically Underutilized Business Zone (HUBZone) Small Business Concerns, and Historically Black Colleges and Universities (HBCU) and Minority Institutions (MIs) are encouraged to submit proposal Concept Papers on their own and/or in collaboration with others. However, no portion of this BAA will be set aside or reserved exclusively for Small, SD, or Service-Disabled Veteran-Owned Business Concerns, or for VO, WO, or HUBZone Small Business Concerns, or for HBCU and MIs.

## 2.5 Project Qualification Requirements

This BAA solicits research projects in response to specific research topics detailed in this document (**Appendix C**). The FHWA is interested in all research that may lead to safer and long-lasting highway pavements, bridges, culverts, tunnels, and other structures through

improved practices for design, construction, and evaluation. However, for the purposes of this BAA program, the FHWA will respond only to Concept Paper submittals that are in direct response to a specific research topic, as defined in ~~**Appendix C**~~**in each BAA call**.

This BAA will not be used to sponsor projects that develop specific products or systems for sale.

## 2.6 Program and Project Funding Availability

FHWA will determine if any submittals are consistent with the objectives of this BAA and of interest to the Government, and if adequate funding exists. Awards are subject to the availability of funds. No funding provision or commitment can be made at the time of award for phased or expanded work or projects beyond the initial or base phase funded at the time of award that the applicant may propose in its submissions. If appropriated funds are authorized, FHWA may, at its discretion, provide additional funding for phased or expended effort under existing awards.

Awards may be of any dollar value, but it is anticipated that most individual awards (or that part of the Government's portion in a cost sharing arrangement) will have dollar values ranging between $50,000 and $750,000.

Awards resulting from this BAA will be made based on the evaluation results of a two-phased process. The Government reserves the right to fund all, some, one, or none of the proposals submitted; may elect to fund only part of a submitted proposal; and may incrementally fund any or all awards under this BAA. In either case, the Contracting Officer will have the ultimate authority and responsibility to make final scope determinations for selections of proposals that will not be totally funded to ensure the portion selected meets the solicited requirements. In addition, the Government reserves the right to create and maintain a reserve list of proposals for potential funding, if additional funding becomes available.

All awards are subject to the availability of funds. Offers considered unresponsive to the Government's requests for information in a timely manner, defined as meeting government deadlines established and communicated with the request, may be removed from further consideration.

## 2.7 Cost Sharing

Cost sharing by awardee is not mandatory for contracts under this BAA.

## 2.8 Project Selection Process

This BAA selection process is structured as a two-step process. ~~The Government~~ All calls issued under this BAA will utilize a phased approach for the evaluation of project concept papers and proposals in response to this BAA.

### 2.8.1 Project Concept Papers

The first step of the process is the submission and evaluation of project concept papers. As detailed in **Section 3**, the project concept paper provides a brief overview of the research effort, including the current state of development, the next steps in the development plan and rough order magnitude cost and schedule data. Project concept papers will be used to gauge applicability of and the Government's interest in the technology research area. All Offerors must first submit a project concept paper to be considered for an award.

Discussions between the Offeror and FHWA are encouraged at this point in the process to develop or refine project concepts and to avoid unnecessary work efforts, by either party, on project concepts that the Government does not value, or cannot fund.

Project concept papers shall be submitted in electronic form via e-mail. FHWA will work to complete project concept paper evaluations within 60 days of receipt and will notify the Offeror of final disposition. The final disposition includes the following:

- A conclusion of FHWA's evaluation of the project concept paper: Acceptable or Not Acceptable.
- If the conclusion is Acceptable, an invitation to submit a formal proposal will be included; Not Acceptable, an invitation will not be extended.

### 2.8.2 Project Proposals

Following project concept paper evaluation and discussion, FHWA may invite the Offeror to submit a detailed technical and cost/price proposal for award evaluation. Proposals shall be prepared in accordance with the requirements of **Section 4.** Submissions that are incomplete,

materially lacking, or not responsive to the technical requirements of this BAA, may be returned unevaluated, or evaluated as is, without further opportunity for revision, at the discretion of the FHWA's evaluation committee.

Proposals shall be submitted in in electronic format (Adobe PDF) via e-mail.

## 2.9 Deliverable Requirements

All deliverables developed under this BAA must be compliant with Section 508 of the Rehabilitation Act and shall be improved, modified, or edited to address Government reviews and requirements and remediation. Section 508 requires that all electronic products prepared for the Federal Government be accessible to persons with disabilities, including those with vision, hearing, cognitive, and mobility impairments.

Applicable Standards:

- Appendix A to Part 1194 – Section 508 of the Rehabilitation Act: Application and Scoping Requirements
- Appendix B to Part 1194 – Section 255 of the Communications Act: Application and Scoping Requirements
- Appendix C to Part 1194 – Functional Performance Criteria and Technical Requirements

Section 508 Refresh standards are available at https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh.

The Contractor shall adhere to the terms and requirements in FHWA Form 4260 Section 508 Information and Communication Technology (ICT) Conformance Criteria for Section 508 conformance. The Conformance Criteria document does not need to be completed when submitting a deliverable.

All final deliverables shall be user friendly, visually appealing, and self-certified to be Section 508 compliant by the Contractor. Microsoft Word, Microsoft PowerPoint, and Adobe PDF versions of deliverables shall be provided and shall be 508 compliant. The contractor shall use the Government's publication templates for Microsoft Word and Microsoft PowerPoint deliverables. Government templates are provided upon request.

All results, data, source code, and documentation generated and collected shall be provided as deliverables, including any test data, test equipment data files, and test results obtained and used to provide the contract services and deliverables. All test data deliverables shall be submitted and in accordance with the Federal Highway Administration, Federal Highway Administration, FHWA InfoMaterials™ Dataset Management, July 2021, Publication No. FHWA-HRT-21-065 (Appendix G).

1. Proposed and final table structure, sample data, format, data dictionary and code list to store data generated under this contract, for COR review and approval.
2. Any data collected or generated under this contract, in the FHWA approved format (from Item 1), along with metadata and related documentation.
3. Delivery of all software, analysis tools, source code, and documentation for any software and analysis tools developed under this contract. Source code and documentation includes all design details, algorithms, processes, flow charts, and other materials that enable the software and analysis tools to be reproduced or recompiled.

In addition, the Offers who develop data, reports, fact sheets, technical flyers (e.g., TechBriefs and Application Notes), brochures, booklets, Web pages, articles, presentations, graphics, other publications, events, and marketing outreach, etc. shall be user friendly, visually appealing, and follow the formatting requirements, editorial style preferences, printing- publishing policies and procedures, and copyright as presented in the *Turner-Fairbank Highway Research Center (TFHRC) R&D Communication Reference Guide (CRG)* FHWA-HRT-15-058, CRG updates, and Research Publication Development Tools guidance. This CRG can be found at the following link https://www.fhwa.dot.gov/publications/research/general/15058/15058.pdf. The updates are contained in Appendix H and Appendix I. The Research Publication Development Tools guidance is available at https://highways.dot.gov/research/publication-tools. Copyrighted materials shall not be used unless permission is obtained and unlimited and irrevocable rights are provided to the Government.

Deliverables shall undergo further FHWA technical review, publication review, Office of Public Affairs review, and Office of Chief Counsel review. Because of these reviews additional changes may be required and shall be made by the Contractor to create Publication Ready deliverables. The Contractor shall provide the revised draft final deliverables as necessary to reflect required

changes and comments provided by these reviews.

## 2.10 Intellectual Property Rights

Awards will generally contain detailed provisions concerning patent rights, rights in technical data and computer software, data reporting requirements, and other terms and conditions which may be negotiated as part of the award process.

Offerors must describe any limitations on any intellectual property (patents, inventions, trade secrets, copyrights, or trademarks) that will impact the Offeror's performance of the contract or impact the Government's subsequent use of any deliverable under the contract. The Offeror must describe the intellectual property in sufficient detail to describe the limitations (Data assertions of the Offeror or any subcontractor, potential patent licenses required by the Government, etc.), and to describe why or how the Government can accomplish the stated objectives of this BAA with the limitations described or proposed by the Offeror. This information must be included in Volume III, Supplemental Information, of the proposal.

### 2.10.1 Patents

Offerors must list any known patents, patent applications, or inventions which may require the Government to obtain a license should the Offeror's proposal be selected for award. If any patent, patent application or invention is owned by the Offeror, the Offeror must provide a statement, in writing, that it either owns or possesses the appropriate licensing rights to patent, patent application or invention for which the Government may require a license. If an Offeror does not own or have license rights to license the Government for any such patent or patent application, the Offeror must explain how the Government may obtain a license or whether the Offeror plans to obtain these rights on behalf of the Government.

For any patent or patent application listed above, the Offeror must provide the patent number or patent application publication number, a summary of the patent or invention title, and indicate whether the Offeror is the patent or invention owner. If a patent or invention is not licensed by the Offeror, identify the licensor. Be advised that no patent, patent application, or invention disclosure will be accepted if any of them are identified in the Data Rights Assertion list described in Section 2.10.2. Rights in patents, patent applications, and invention disclosures are

addressed in the patent rights clause to be included in the contract and therefore, no assertion of limited rights in patents or patent applications will be accepted. The list of patents, patent applications and inventions of this section must be a separate list from the Data Rights Assertion list described below.

### 2.10.2 Proprietary Data Restrictions

Offerors are advised that the proposal Concept Papers and/or proposals may contain data the Offeror does not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes. If the Offeror wishes to restrict such data, the cover page of all submittal documents must be marked with the following legend, and relevant sheets marked as instructed.

> *This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal. However, if a contract is awarded to this Offeror as a result of – or in connection with – the submission of these data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in these data if they are obtained from another source without restriction. The data subject to this restriction are contained in Sheets [insert numbers or other identification of sheets].*

Each restricted data sheet shall be marked as follows:

> *Use or disclosure of data contained on this sheet is subject to the restriction on the cover page of this document.*

To the extent that such restrictions on proprietary data or information would not interfere with the intent of the Government to make the results of the work and projects awarded under the BAA available to all interested parties, and if in conformance with the Freedom of Information Act (5 U.S.C. 552, as amended), the Government will honor those desires.

## 2.11 Data Rights

The Government has unlimited rights to all documents/materials produced under this BAA. All documents and materials, to include the source code of any software or analysis tools produced

under this BAA, shall be Government owned and the property of the Government with all rights and privileges of ownership/copyright belonging exclusively to the Government. These documents and materials may not be used or sold by Contractor without written permission from the CO. All materials supplied to the Government shall be the sole property of the Government and may not be used for any other purpose. This right does not abrogate any other Government rights.

Copyrighted materials shall not be used unless permission is obtained and unlimited and irrevocable rights are provided to the Government.

### 2.12 Section 889 Compliance Requirement

All contracts and cooperative agreements awarded under this BAA must be compliant with Section 899 ("Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment") of Public Law 115-232, also known as the John S. McCain National Defense Authorization Act.

**52.240-90 Security Prohibitions and Exclusions Representations and Certifications. SEPT 2025**

**52.240-91 Security Prohibitions and Exclusions. SEPT 2025**

~~FAR 52.204-24 Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment. NOV 2021~~

~~FAR 52.204-25 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. NOV 2021~~

## 3 PROJECT CONCEPT PAPERS

All project concept papers must respond to a research topic defined in ~~**Appendix C**~~ **each BAA call**. The FHWA will not evaluate project concept papers that do not respond to a listed research topic. In the case of multiple project proposals from a single Offeror, a separate project concept paper is required for each project. No proposal will be considered for an award without an approved project concept paper.

Project concept papers shall be prepared simply and economically and shall provide a concise

description of the proposed research project, organized as defined in the following sections. Project concept papers shall be no more than 5 pages in length (excluding cover page and QUAD chart), no less than 12- point font, and single-spaced, single-sided letter size pages with 1" margins (minimum). Project concept paper submissions should not include promotional brochures, advertisements, taped recordings, or other extraneous material.

### 3.1 Cover Page

Project concept papers shall include a cover page containing the following information:

- Working title of the proposed project
- BAA Research Topic title and reference Number ~~(**Appendix C**)~~ as specified in each call
- Names, phone numbers, mailing and e-mail addresses for the principal technical and contractual points of contact (person or persons authorized to negotiate on behalf of the Offeror and who can contractually obligate the Offeror organization) Secondary Offeror organization addresses (project partners), if any
- Confirmation of a current **SAM.gov** registration for your organization
- Date of submittal
- Proprietary data restrictions, if any (See **Section 2.10.2**)

### 3.2 Technical Approach

The Technical Approach shall contain the Background, Scope of Work, Expected Outcomes and Impacts, and the Quad Chart sections of the project concept paper. Technology readiness levels are defined in the FHWA's Technology Readiness Level Guidebook (https://www.fhwa.dot.gov/publications/research/ear/17047/17047.pdf).

#### 3.2.1 Background

In this section, the Offeror shall describe the following:

**Objective Statement** – Briefly describe the technology proposed for research. Provide a statement(s) that conveys the Offeror's objective for this work and vision of the fully developed technology.

**Description of Need** – Describe the specific issue intended to be solved or improved by the

technology proposed for research and development. Discuss the proposed application to maintain or improve the design, construction, or evaluation of the Nation's highway infrastructure. Estimate the potential for the highway infrastructure industry adopting this technology and provide a rationale for this estimate.

**Technology Assessment** – Briefly explain the maturity of the technology in the context of the technology readiness levels detailed and defined in the FHWA's Technology Readiness Level Guidebook (https://www.fhwa.dot.gov/publications/research/ear/17047/17047.pdf).

**Development Framework** – Describe the development history of the technology, both within the Offeror's organization and from other sources, as applicable. Discuss the technical, financial, programmatic, or other significant factors that have impacted the development of this technology to date, both positively and negatively.

### 3.2.2 Scope of Work

The Offeror shall describe the general scope of work planned for this research activity. This section shall describe the major research, synthesis, testing, data collection, and analysis activities in sufficient detail to communicate the breadth of activities proposed. A detailed work breakdown structure is not required with project concept papers. The Offeror shall indicate major progress milestones and associated deliverables as part of this section.

The scope of work shall identify all Offerors and associated stakeholder groups in the major activities of the project and shall indicate the estimated work effort required from each Offeror, expressed as a percentage of the total effort for each activity. In addition, the Offeror shall identify any third-party resource needs that are required during the project. These resources may include Government furnished equipment.

### 3.2.3 Expected outcomes and impacts

Identify the significant outcomes expected from the project and their impact on the engineering practice and associated safety, durability, efficiency, sustainability, and resiliency of the Nation's highways, including short, medium, and long-term effects. Explain how the outcomes of the proposed research will be implemented into practice. The FHWA is seeking innovative ideas for dissemination and technology transfer to practice.

### 3.2.4 Patented or proprietary items

Provide an identification and description of any patented or proprietary items to be utilized in the research in the event that the items may need to be specified for use if advanced further or needed by the end user.

### 3.2.5 Quad Chart

Include a Quad chart summarizing the project concept, as per the example and instructions provided in **Appendix A**.

## 3.3 Qualifications

The Qualifications section of the project concept paper shall introduce the project team, the team's experience, and any unique capabilities.

### 3.3.1 Project Team

List all key Offerors proposed for the project, including Offerors from outside the prime Offeror's organization. Organize the team by organization name and briefly describe each person's roles and responsibilities on the project. Provide a short synopsis of each key person's education, experience, and other qualifications applicable to the proposed project. Provide information on the business type (small, large, or disadvantaged) for each Offeror organization.

### 3.3.2 Experience

Describe the relevant experience of each organization participating in the project. Identify any publicly available and accessible resources that may provide more details regarding this experience, e.g., public web site links to past or current project documents.

## 3.4 Schedule and Cost Estimate

Provide milestones for the proposed project that includes start, finish, and major activity completion times. Express milestones dates as the number of weeks from project start.

Provide a rough order magnitude cost estimate. Provide a breakdown of these costs (percentage) for each organization in the project team.

Provide a funding plan for the project. Identify each funding source and their contribution to the whole, expressed as a percentage. Include all anticipated sources, including Offeror internal sources, government funds, and other Offeror organizations.

# 4 PROJECT PROPOSALS

Following review, evaluation and discussion of the project concept paper, the FHWA may invite the Offeror to submit a formal proposal for the project. The project proposal builds upon the contents of the project concept paper, as modified through discussions between the Offeror and FHWA. Additional content and more detailed information are required in the proposal document, as described in the sections that follow.

Proposal documents are produced to the same formatting requirements as the project concept papers, except for a **20-page limit**. **This 20-page limit** is for Volume I only. Submissions that are incomplete, materially lacking, or not responsive to the technical requirements of this BAA, may be returned unevaluated, or evaluated as is, without further opportunity for revision, at the discretion of the FHWA's evaluation committee.

The proposal shall contain a Cover Page and relevant data organized into 2 Volumes:

- Volume I: Technical Proposal
- Volume II: Cost and Pricing Data

Offerors are advised that the FHWA's evaluation of a project for possible award is based solely on the contents of the Offeror's project proposal document and the Offeror's answers to any technical clarification questions, as transmitted through the Contracting Officer.

## 4.1 Cover Page

Project proposals for each call shall include a cover page containing the following information:

- Working title of the proposed project
- BAA Research Topic title and reference Number ~~(**Appendix C**)~~as specified in each call

- "Project Proposal" written below the project title
- Names, phone numbers, mailing address and e-mail addresses for the principal technical and contractual points of contact (person or persons authorized to negotiate on the behave of the Offeror and who can contractually obligate the Offeror organization)
- Secondary Offeror organization addresses (project partners) if any
- Confirmation of a current **SAM.gov** registration for your organization
- Date of submittal
- Proprietary data restrictions, if any (See Section 3.9.2)

## 4.2 Volume I: Technical Proposal

The Technical Proposal shall contain the following sections:

1. Background
2. Statement of Work
3. Technical Approach
4. Project Management Plan
5. Capabilities and Experience
6. Quad Chart

### 4.2.1 Background

Offerors shall explain, specifically, how the proposed technology or method enhances the ability to meet the research topic goals; how it could be incorporated into existing infrastructure or operations (to include how major barriers, impediments or obstacles could be overcome or mitigated); and the interface modifications required to accomplish a demonstration. Explain how its application will bring about an improvement to capital infrastructure, or operating methods, safety and/or performance improvements and correlated benefits. Quantitative support should be provided for assertions made.

Proposals may include a discussion of optional, future phase or phases of work. Such discussion shall be clearly labeled as "optional future phase or phases of work." The original phase or work shall in no way depend on work described under future phases to meet the program criteria. If a future phase or phases are included, a rough order magnitude cost estimate shall be provided as a

separately labeled section in the costs and pricing section of the proposal.

Proposals shall include references to past relevant research describing capabilities, work, and significant accomplishments in areas directly associated with proposed research area or in closely related areas. A bibliography of relevant technical papers and research notes that support the technical concepts and innovative ideas described in this proposal shall be included for technical reference.

**Objective Statement** – Describe the technology proposed for research. Provide a statement(s) that conveys the Offeror's objectives for this work and vision of the fully developed technology.

**Description of Need** – Describe the specific issue intended to be solved or improved by the technology proposed for research and development. Discuss the proposed application to design, materials, construction, project management and delivery, performance, TPM & TAM, sustainability, and resiliency of highways and/or efficiency improvement in the United States. Discuss the intended stakeholder groups expected to utilize this technology and discuss how each group is expected to leverage this technology to meet the FHWA's strategic and RD&T goals and strategies. Estimate the potential for the highway infrastructure industry adopting this technology and provide a rationale for this estimate.

**Technology Assessment** – Explain the maturity of the technology in the context of the technology readiness levels detailed in Section 3.2.1. Describe the technology readiness in the context of the highway infrastructure industry (operations, legal, regulatory, etc.).
Describe how the proposed research or technology is technically or scientifically innovative with respect to the research topic description.

**Development Framework** – Describe the development history of the technology, both within the Offeror's organization and from other sources, as applicable. Discuss the technical, financial, programmatic, or other significant factors that have impacted the development of this technology to date, both positively and negatively.

**Expected Outcomes and Impact** – Identify the significant outcomes expected from the project and their impact on the engineering practice and associated safety, durability, efficiency, sustainability, and resiliency, of the Nation's highways, including short, medium, and long-term

effects.

Explain how the outcomes of the proposed research will be implemented into practice. The FHWA is seeking innovative ideas for dissemination and technology transfer to practice.

**Patented or proprietary items** – An identification and description of any patented or proprietary items to be utilized in the research.

### 4.2.2 Statement of Work

A statement of work (SOW) document shall be prepared as a separate document contained within the proposal submittal. There shall be no company-sensitive or proprietary data included in this document. The Statement of Work is not included in the project proposal's Volume I 20-page limit, stated in Section 4.

This SOW shall contain the following information:

Work Scope: Describe the work to be accomplished as part of the research project. Include the technology under development, the objectives and goals of the effort, major milestones, and the expected outcomes.

Requirements: Define the work. Separate the work effort into major tasks and subtasks as numbered paragraphs, or in a table. Identify all project reviews, test, demonstrations, and all deliverables resulting from the execution of the project.

Deliverables: All project deliverables should be clearly listed and described.

### 4.2.3 Technical Approach

Offerors shall provide a narrative description of work to be performed, organized as it is expected to be performed. The technical approach shall include activities designed to integrate the transportation industry into the development effort, either through active participation in the technology development or through demonstration and/or testing support. Describe the steps, tasks, and activities necessary to achieve the desired project results. Identify and describe all deliverables, presentations, demonstrations, test, and periodic reports. Describe the quality requirements for the project and identify the processes and/or procedures that will be employed

to ensure these requirements are satisfied.

The technical approach shall include a risk assessment. Technical, programmatic, market and other risk elements shall be analyzed for their impact on the project. A scoring or ranking scheme shall be developed to quantify potential impacts. Data shall be presented in a probability/impact chart or another suitable format.

### 4.2.4 Project Management Plan

The proposal shall contain a detailed management plan for the project based upon the following minimum requirements.

Work Breakdown Structure (WBS) – Divide the project requirements into tasks and work packages. Hierarchically organize the project work down to the work package level. A table or chart format is preferred.

Project Schedule – Sequence the project activities, identify, and estimate resource requirements and activity durations. Identify the critical path. Present the project schedule as a bar, or Gantt-style chart, including activity relationships (dependencies). Provide a milestone chart for the project illustrating key activities and their expected completion time (weeks from project start). Include intermediate progress reviews, demonstrations or tests, and periodic reporting activities in the schedule. All project deliverables shall be clearly indicated on the project schedule.

Mobilization Plan – In the context of the project schedule, describe the plan to acquire and deploy resources needed for the project, including personnel, facilities, equipment, and other resources, including Government Furnished Equipment (GFE), deemed necessary for project execution.

Organization Chart – Deliver an organization chart for the project illustrating resource roles and reporting relationships. Include all Offeror organizations. Clearly highlight organizations that are participating in cost sharing activities. Identify the type of business (large, small, disadvantaged, or educational) for each Offeror organization. Provide resumes (2-page maximum each) for all key personnel on the project. Resumes shall be organized in an appendix to the proposal. Resumes do not count toward the 20-page limit for the proposal.

Subcontracts/Teaming/Cost Sharing Management Plan – Identify and describe the Offeror's plans for subcontracting, teaming, and cost sharing. Clearly identify the roles and responsibilities of all organizations working within the project team, including technical and financial elements.

Testing Plan - Describe the testing requirements, environments and methods needed to assess or demonstrate the suitability of the technology and to demonstrate the success of the proposed project. Cite transportation companies or other highway-related organizations that have expressed their willingness to permit and/or support such testing or demonstrations. Letters or statements attesting to an outside organization's interest or commitment to permit and/or support testing or demonstrations should be furnished with the proposal as an attachment. Such letters or statements will not count towards the proposal's 20-page limit.

### 4.2.5 Capabilities and Experience

Identify and describe the capabilities and experience of key personnel and organizations within the project team as these elements relate to the proposed project. Describe any relevant technological and scientific, highway or other industrial or defense capabilities, experience, and resources (or those of its team members) that will serve to demonstrate its ability to successfully conduct the proposed research or technology advancement project. Describe the team member's (or organization's) familiarity with or position in the transportation community and access to critical resources for the project.

Describe any unique capabilities that the Offeror team possesses that may reduce project risk, may reduce project duration, and/or may improve project financial performance. Describe these capabilities within the context of the objectives of the BAA and the proposed project's scope of work.

### 4.2.6 Quad Chart

Include a Quad chart summarizing the project proposal, as per the example and instructions provided in **Appendix A**. Quad charts shall be submitted electronically in PowerPoint (.ppt) format.

## 4.3 Volume II: Cost and Pricing Proposal

### 4.3.1 General Requirements

**Note to Offerors:** This section only applies to an Offeror that elects to submit a proposal for the award of a contract. The Offeror may propose a Firm Fixed Price, Cost Reimbursement, or a Time- and-Materials proposal. Please note that for cost type contracts, the Offeror must have an adequate accounting system for cost type Government contracts. An Offeror without an adequate accounting system shall submit a Firm-Fixed Price and/or Time-and-Material price proposal.

The Offeror shall provide Volume II of its formal Proposal organized by the following sections:

1. Cover Page
2. Cost/Price Information
3. Other Financial/Organizational Information
4. Small Business Subcontracting Plan
5. Recommended Procurement Instrument and Pricing Arrangement

Identify each funding source and their contribution to the whole, expressed as a percentage. Include all anticipated sources, including Offeror internal sources, government funds, and other Offeror organizations.

The cost or pricing portion of the proposal should contain a cost estimate for the proposed effort to allow for meaningful evaluation and determination of price or cost reasonableness. The cost estimate shall account for the entire cost of the project, inclusive of that portion of cost the applicant or other Offerors would bear in any proposed cost sharing arrangement or other investment of resources, as a means of venture sharing, in lieu of a formal cost sharing arrangement. The cost estimate shall be broken down for each year of the proposed work, and by all years combined. At a minimum, the cost estimate shall include the following information:

<u>Labor</u> - A breakdown of direct labor, by WBS index number, identifying the labor categories or individuals and projected hours, and their associated subtotals.

<u>Overhead and/or fringe</u> - Labor overhead and/or fringe rate(s) and base(s), and cumulative effect on labor costs.

Materials, supplies, and equipment - Description and cost of materials, supplies, and equipment, to include the basis of the cost estimate (e.g., historical data, competitive market quotes, and in-house transfers). Specific mention should be made of any highly specialized or costly test equipment or supplies needed to accomplish the project.

Travel and transportation - Breakdown of travel and transportation costs.

Subcontracts - Breakdown of individual subcontracts. State the amounts of time of subcontractor/consulting services to be devoted to the project, including the cost to be charged to the proposed contract/agreement.

ODC - Breakdown of other direct costs (reproduction, computer time, and consultants).

Misc. - Identification of any other direct or indirect cost elements not identified elsewhere. For each indirect rate (identified here or elsewhere), indicate if the proposed indirect rate and allocation base have been approved by a government audit or cognizant agency for use in proposals and when the rate(s) was approved and the name of and telephone number of the cognizant auditor or approving official.

General and Administrative - G&A rate and base, and cost outcome.

Profit or fee - Generally, the FHWA does not anticipate providing profit or fee under contracts awarded under the BAA because of the potential for long-term benefits to those firms or institutions involved in these demonstration activities. However, profit or fee may be proposed, and if proposed, is subject to final negotiations.

Cost Sharing/Cost Participation - Identify extent of cost sharing/cost participation, if any (exclusive of the Offeror's prior investment), to include the actual dollars or the percentage of the cost share of the proposed research or technology project, to be provided by the applicant, or third party contributors or other Federal funding sources, if allowable; the type and extent of cost limitations (direct or indirect); or the specifics for and extent of similar concepts indicative of cost participation. (Note: The applicant may be required to certify that it has secured the appropriate cost share funding levels and identify the source of funding.)

The value of any proposed cost participation in the form of participation in-kind or other investment of resources as a means of venture sharing, in lieu of a formal cost sharing arrangement, or third-party in- kind contributions, must be assessed by the Government.

### 4.3.2 Cover Page

Offerors shall include a Cover Page and contains information as in **Section 4.1**.

### 4.3.3 Cost/Price Information

Offerors shall provide detailed cost/price information. Offerors shall present cost/price information using the Cost Reimbursement or Time-and- Materials workbooks in **Appendix B – Cost/Price Proposal Models**.

Offerors' cost/price information shall include the total costs for the proposed period of performance. The detailed cost and price information in the Contract Cost/Price Proposal must also include a separate breakdown of costs by major SOW task areas. Offerors shall use the same task or subtask numbers as described in the SOW submitted in its technical proposal. If necessary, the Government will request additional back-up information, as appropriate.

Note: See **Section 2.6** for Program and Project Funding Availability.

<u>Cost Reimbursement Cost Proposal</u>

If the Offeror elects to submit a cost reimbursable proposal, the Offeror shall provide a detailed cost break-down showing all its proposed costs by each major cost category, including (as applicable) direct labor, fringe benefits, subcontract costs, other direct costs (travel, equipment, etc.), and indirect costs for the proposed effort.

For each major cost category, the Offeror's price proposal shall include:

*Direct Labor:*

- Personnel by name or labor category
- Number of hours proposed (commercial organizations) or percent of effort (organizations subject to OMB Circulars)

- Hourly unburdened labor rate (commercial organizations) or salary rate and basis (9- or 12-month basis) (organizations subject to OMB Circulars)
- Fringe Benefits Rates applied
- Profit/Fee percentage and amount

*Other Direct Costs*. Other Direct Costs shall be supported by explanation of estimating factors and other relevant supporting details. For example, travel costs shall be supported by detail on the estimated trips, number of travelers, and associated costs for airfare, per diem, other transportation, etc. A similar level of detail shall be provided for any meeting costs, equipment, duplication/printing charges, and other direct costs.

*Indirect Costs*. Discuss your proposed rates for all years. Identify the various specific indirect rates and what they are based on (e.g., labor overhead based on direct labor dollars) and how they are applied/calculated. State any differing rate applications (for example if there is a different proposed rate when applied to travel or material purchases than when applied to subcontractor costs). Offerors must provide dollar values as well as percentages.

Subcontractor costs should be fully detailed, and the information used by the proposer to analyze the price of the subcontract shall be provided. An SF1411 is not required for this submission of your proposal.

Details of any cost sharing to be undertaken by the Offeror shall also be included in the cost section. Describe the type of funds (cash, in-kind, etc.) and its contribution and relationship in enhancing the proposed effort.

Time-and-Materials Price Proposal

If the Offeror elects to submit a Time-and-Materials price proposal, the Offeror shall provide a detailed itemized break-down of all the proposed prices, including: fully loaded direct labor hours and rates, the number of hours proposed for each category by the SOW tasks proposed, any proposed sub-contractor prices, and all other direct costs (e.g. travel, equipment, etc.).

Assumptions

For all cost/price proposals, the Offeror shall submit, under a separate tab, all (if any)

assumptions or conditions upon which the cost/price proposal is based.

### 4.3.4 Other Financial / Organizational Information

Offerors shall provide the following financial and organizational information in its Volume II – Contract Cost/Price Proposal:

1. Standard Form LLL - Submit a completed Standard Form LLL, Disclosure of Lobbying Activities. **See Appendix D – Standard Form LLL, Disclosure of Lobbying Activities**
2. Terminated Contracts - List any contract that was terminated for convenience of the Government within the past 3 years, and any contract that was terminated for default within the past 5 years. Briefly explain the circumstances in each instance.
3. A completed copy of the Offeror's Representations and Certifications if the Offeror is not registered and in the System for Award Management (https://sam.gov/) with completed representations and certifications.
4. Conflicts of Interest - The Offerors shall provide a brief statement in its proposal that describes in a concise manner all past, present or planned organizational, contractual, or other interest(s), which may affect the Offerors' ability to perform the proposed contract in an impartial and objective manner. The Contracting Officer will review the statement and may require additional relevant information from the Offerors. In accordance with FAR Subpart 9.5, all such information, and any other relevant information known to DOT, will be used to determine whether an award to the Offerors may create an actual or potential conflict of interest. If any such conflict of interest is found to exist, the Contracting Officer may (a) disqualify the Offerors, or (b) determine that it is otherwise in the best interest of the United States to contract with the Offerors and include appropriate provisions to mitigate or avoid such conflict in the contract awarded.
5. If subcontractors and/or individual consultants will be used in carrying out the requirements of this project, the following minimum information concerning the subcontractor shall be furnished: Name and address of the subcontractor or consultant.

### 4.3.5 Subcontracting Plan

The evaluation of Small Business Subcontracting Plan will be conducted in Phase 2 of the evaluation, and it will only be evaluated for those Offeror's that elect to submit a formal Proposal that will result in a contract award over ~~$750,000~~.$900,000. A Small Business Subcontracting Plan is only required from entities that are other than small businesses. Proposals submitted from other than small businesses that exceed $900,000~~$750,000~~ in total value, must include a Small Business Subcontracting Plan in accordance with the Federal Acquisition Regulation Part ~~19.7~~19.109. Each prime Offeror who is other than a small business shall include within its proposal a complete copy of the prime offeror's Master Subcontracting Plan, satisfactorily addressing all the administrative requirements set forth in FAR section 52.219-9. The Offeror shall also submit a subcontracting plan in accordance with the instructions/format in **Appendix E - Small Business Subcontracting Plan** to this BAA. In the event that the Offeror has no such plan, the form shall be submitted with "no plan identified" indicated on the form as applicable and the offeror shall submit a statement of circumstances supporting that determination.

### 4.3.6 Recommended Procurement Instrument and Pricing Arrangement

Offerors shall include a summary of the recommended pricing arrangement proposed (e.g., firm-fixed-price, cost, cost-plus- fixed- fee, etc.) and include the rationale for their use. However, the FHWA reserves the right to negotiate the pricing arrangement most appropriate under the circumstances. If warranted, portions of resulting awards may be segregated into pre-priced options. It is anticipated that most instruments will be contracts with firm-fixed-price pricing arrangements with milestone payments. It should be noted that cost reimbursable type contractual arrangements are not permissible unless the awardee has an accounting system that has been approved by a federal cognizant audit agency as adequate to support the determination of costs applicable to the contract. Additionally, the accounting system will be subject to audit and surveillance during the awardee's performance to provide reasonable assurance that efficient methods and effective cost controls are being used.

## 5 EVALUATION AND AWARD PROCESS

The BAA evaluation process shall be conducted in accordance with FAR Subpart 35.~~016~~ 102 (d)~~-and~~ (~~e~~f). Offerors will be notified of evaluation results via letter.

The Government reserves the right to select for award any, all, part, or none of the proposals received in response to this announcement. In addition, the Government reserves the right to award contracts determined to be of benefit to the Government in achieving the goals of this program.

It is the policy of the FHWA to treat all proposals as competitive information and to disclose the contents only for the purposes of evaluation. The Government may use selected stakeholder organizations as special resources to provide feedback and input into the evaluation of proposal. All evaluators reviewing proposals from this BAA will be required to sign a conflict-of-interest statement, and a non-disclosure agreement. By submission of a proposal, the Offeror agrees that proposal information may be disclosed to those selected organizations for the limited purpose stated above.

## 5.1 Evaluation Methodology

The Government will utilize a phased approach for the evaluation of project concept papers and proposals in response to this BAA. The evaluation will consist of two phases. In Phase 1 of the evaluation, the Government will review and assess the technical merit of each Offeror's project concept paper. Based on the Phase 1 evaluation results, the Government may select Offeror(s) to advance to the next phase. Selected Offerors will be invited to submit a formal Proposal.

In Phase 2 of the evaluation, the Government will review and assess the full merit of the Offeror's formal Proposal. Based on the Phase 2 evaluation results, the Government may select awardee(s). The required conflict of interest statements and non-disclosure agreements will be utilized to mitigate against possible bias in selection decisions. Additional information on the phased evaluation methodology is delineated below:

### 5.1.1 Phase 1 – Project Concept Paper Evaluation

The Government will use Factor 1 – Technical Merit of Concept Paper in Phase 1 of the evaluation after Concept Papers are first screened for general qualification under the program. The project concept papers will be evaluated for technical value to the Government's area of interest, within the context of available funding, in accordance with the criteria established in 5.1 Evaluation Factors. FHWA will consider the degree of the potential impact of the

proposed approach the feasibility of approach, and the reasonableness of estimated costs for each project concept paper submitted. FHWA will also consider the offeror's capability to perform the work based on the technical approach, background, and referenced resources provided in the project concept paper.

Based on the Phase 1 evaluation results, the Government may select Offerors to advance to Phase 2 and submit a formal Proposal. FHWA may request formal Proposals for project concepts that are deemed to have technical value to the FHWA's objectives and are found to fit within funding constraints.

### 5.1.2 Phase 2 – Project Proposal Evaluation

The Government will review and evaluate Phase 2 proposals in accordance with Factor 2 – Technical Merit of Proposals, Factor 3 – Cost/Price, and Factor 4 - Small Business Subcontracting Plan (if applicable).

During Phase 2 of the evaluation, the Government reserves the right to conduct negotiations with Offerors to clarify technical and cost and price details from the proposals. Based on the Phase 2 evaluation results, and in consideration of all applicable Evaluation Factors (listed below), the Government will select Offerors for award.

## 5.2 Evaluation Factors

The evaluation of concept papers and proposals will be conducted using the following evaluation criteria:

**Factor 1 – Technical Merit of the Project Concept Paper**

The Government will use Factor 1 – Technical Merit of Project Concept Paper in Phase 1 of the evaluation. The technical merit of the project concept paper will be evaluated on the following factors as described in section 3 of this BAA. The factors are of equal importance:

1. Overall technical value based on defined objectives, demonstrated understanding of problem, feasibility of approach, and work plan.

2. Degree of the potential impact and improvement to the bridge and tunnel engineering practice.
3. Plan for dissemination and technology transfer to practice.
4. Qualifications of the research team to ensure project success.
5. Reasonableness of estimated costs and schedule

Once all project concept papers are reviewed and evaluated, FHWA will request formal Proposals from the project concepts that are deemed to have technical value to the FHWA's objectives and are found to fit within funding constraints. Project Concept Papers will not be evaluated or considered as part of the Phase 2 evaluation process.

**Factor 2 – Technical Merit of the Proposal**

The Government will use Factor 2 – Technical Merit of the Proposal in Phase 2 of the evaluation. The technical merit of the proposal will be evaluated on the following sub- factors as described in section 4 of this BAA. The sub-factors are of equal importance.

1. Degree to which the project outcomes will impact and improve the bridge and tunnel engineering practice.
2. Degree to which the Offeror communicates the background and need, in terms of analytical science, prior development progress, and highway infrastructure industry application.
3. Degree to which the proposal provides a clear, complete, feasible, and logical technical approach to the work.
4. Completeness of the project management plan in terms of required elements; and the degree to which the offeror has prepared the project for the execution phase.
5. Degree of experience, credentials, and capability of the project team, including key personnel and team organizational partners, as these elements relate to the project work and influence the project's potential for a successful outcome.
6. Degree to which the final deliverables are user friendly, visually appealing, and include data visualization and professional quality graphic design.

**Factor 3 - Cost/Price**

Price will be considered in the ultimate award decision. The Government will evaluate proposals to determine price reasonableness. The Government will consider the overall availability of funding for allocations or awards selected under the BAA.

**Factor 4 – Small Business Subcontracting Plan**

The evaluation of the Small Business Subcontract Plan will be conducted in Phase 2 of the evaluation, and it will only be evaluated on a "Pass/Fail" basis. **See Appendix E – Small Business Subcontracting Plan.**

### 5.3 Awards

In determining which proposals provide the best value, the Government will conduct an integrated evaluation of cost/price and non-price evaluation factors. The integrated evaluation will consist of three factors: Technical Capability and Price. The Small Business Subcontracting Plan (if applicable) is not weighted.

All awards will be subject to the availability of funds. Only the Contracting Officer can legally commit the Government to the expenditure of public funds under this BAA.

#### 5.3.1 Notifications and Negotiations

All offerors will receive written notification of the final disposition of their proposal. If selected for award, the Contracting Officer will contact the offeror with further instructions, including negotiation procedures, if needed.

## 6 ~~PROPOSAL~~ DUE DATES

~~If an Offeror does not understand the instructions as described herein, then they~~ Questions and Concept Papers must submit ~~their questions(s)~~ to the Contract Specialist ~~(Raven Merchant)~~ by the date and time specified in each BAA Call to be considered timely and acceptable. No telephone requests will be taken. ~~for clarification.~~

~~**6.1 Questions on the BAA content, issues, or procedures should be emailed to:**~~

~~Questions are due by 12pm EST on September 13, 2023 electronically to: Raven.Merchant@dot.gov and HCFA-22SRI@dot.gov.~~

~~Any questions relating to this announcement must be emailed to the contract specialist. No telephone requests will be taken.~~

~~****SEE APPENDIX C FOR CLOSING DATE OF CONCEPT PAPERS****~~

### ~~6.2~~6.1 Proposal Due Date

Proposal~~s~~ due dates will be specified in an advisory email sent to Offeror/s after Concept Paper evaluations are complete. ~~are due by 12pm EST on the date included in the letter to Offerors electronically to: Raven.Merchant@dot.gov and HCFA-22SRI@dot.gov~~

~~**Offers must be received by the time and due date specified herein to be considered timely and acceptable.**~~

## 7 LIST OF ATTACHMENTS: BAA DOCUMENTS

Appendix A – Project Quad Chart

Appendix A-1 - Project Quad Chart Microsoft PowerPoint Template

Appendix B – Cost/Price Proposal Models

Appendix C – Research Topics

Appendix D – Standard Form LLL, Disclosure of Lobbing Activities

Appendix E – Small Business Subcontracting Plan

Appendix F – FHWA Strategic Plan – FY 2022–2026

Appendix G – Federal Highway Administration, FHWA InfoMaterials™ Dataset Management, July 2021, Publication No. FHWA-HRT-21-065

Appendix H – Communication Reference Guide: Updates, dated 07/01/2021

Appendix I – Communication Reference Guide: Updates, dated 02/22/2022