

NOTICE OF FUNDING OPPORTUNITY FOR FISCAL YEAR 2023 CENTER OF EXCELLENCE ON NEW MOBILITY AND AUTOMATED VEHICLES

AGENCY: U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA).

ACTION: Notice of Funding Opportunity (NOFO) for the Center of Excellence (COE) on New Mobility and Automated Vehicles.

FUNDING OPPORTUNITY NUMBER: 693JJ323NF00008 issued **April 4, 2023.**

ASSISTANCE LISTING NUMBER: 20.200 Highway Research & Development

TOTAL AMOUNT AVAILABLE: This NOFO will result in the award of one (1) cost-reimbursable cooperative agreement. The FHWA anticipates Federal funding up to a total amount of \$1,500,000 per year may be made available for this Agreement, subject to the availability of funds, for a total potential Federal share of \$7,500,000.

DEADLINE FOR APPLICATIONS: June 6, 2023, at 11:59 PM (Eastern).

WEBINAR: The FHWA plans to conduct outreach regarding this program in the form of a virtual meeting on April 17, 2023, Eastern Standard Time. To join the Webinar, follow the instructions posted on *TBD*. The audio portion of the Webinar can be accessed from this teleconference line: TOLL FREE *TBD*; ACCESS CODE *TBD*. The Webinar will be recorded and posted on FHWA's Website at *TBD*. A Telephone Device for the Deaf (TDD) is available for individuals who are deaf or hard of hearing at *TBD*.

QUESTIONS DUE DATE: Any questions regarding this NOFO are due to FHWA Point of Contact, Angela A. Jones, Agreement Specialist at Angela.Jones@dot.gov, no later than April 16, 2023, at 4:00 PM (Eastern).

SUBMIT APPLICATIONS TO: The FHWA uses www.grants.gov for receipt of all applications. Applicants must register and use the system to submit applications electronically. Applicants are encouraged to register in advance of the submission deadline and to register to receive notifications of updates/amendments to this Notice. Approval of user registrations for the site may take multiple weeks. It is the Applicant's responsibility to monitor for any updates to this Notice.

FHWA POINT OF CONTACT:

Angela A. Jones
Agreement Officer/Specialist
Office of Acquisition and Grants Management
Federal Highway Administration

U.S. Department of Transportation
1200 New Jersey Ave., SE.
Washington, DC 20590
Email: Angela.Jones@dot.gov
Phone: (202) 366-4255

Alternate:

Hector Santamaria
Agreement Officer
Office of Acquisition and Grants Management
Federal Highway Administration
U.S. Department of Transportation
1200 New Jersey Ave., SE.
Washington, DC 20590
Email: Hector.Santamaria@dot.gov
Phone: (202) 493-2402

Each section of this notice contains information and instructions relevant to the application process. The applicant should read this notice in its entirety so that they have the information they need to submit eligible and competitive applications.

The FHWA will not review applications in advance, but FHWA staff are available for technical questions and assistance. In addition, FHWA will post answers to questions and requests for clarifications at [Grants.gov](https://www.grants.gov) under this NOFO's page.

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NOTE: This notice contains collection-of-information requirements subject to the Paperwork Reduction Act. The collection of information through the use of Standard Forms 424, 424A, 424B, 424C, 424D, and SF-LLL has been approved by OMB under 2105-0520. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the Paperwork Reduction Act, unless that collection displays a currently valid OMB control number.

SECTION A - PROGRAM DESCRIPTION

1. STATEMENT OF PURPOSE

The FHWA hereby requests applications to result in the award of a new **Cooperative Agreement**, that will establish a ***Center of Excellence on New Mobility and Automated Vehicles (Mobility COE)***, as defined in the Technology and Innovation Deployment Program under Title 23 U.S. Code section 503(c)(6). This opportunity is being issued under assistance listing number 20.200, Highway Research & Development.

2. LEGISLATIVE AUTHORITY

Public Law 117-58, the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law, November 15, 2021, amended 23 U.S. Code §503(c), and directed the Secretary to “...establish a Center of Excellence to collect, conduct, and fund research on the impacts of new mobility and highly automated vehicles on land use, urban design, transportation, real estate, equity, and municipal budgets.” The Mobility COE may be established by creating “...partnerships with any institution of higher education...or public or private research entity.”

This opportunity will fulfill those statutory requirements by identifying a partnering institution and establishing the new Center of Excellence.

As a legislative amendment to 23 U.S. Code §503(c), Technology and Innovation Deployment Program, the FHWA understands that the Mobility COE shall continue to exist until such time as this requirement is removed. However, the period of performance for the proposed Cooperative Agreement shall not exceed 60 months and the FHWA may opt to meet this requirement using a different organizational structure in the future.

3. BACKGROUND

Today’s ground transportation sector is on the cusp of major changes arising simultaneously from three technology-driven trends: connectivity, automation, and electrification.

Connectivity combines physical transportation assets with digitalization and information sharing. It is enabled by diverse network communications strategies, ranging from cell phone apps to dedicated spectrum such as the Intelligent Transportation Services (ITS) safety band on the 5.9 GHz frequency. Some of these technologies are already widely deployed: telecommunications combined with new shared use business models have already revolutionized local travel and have enabled and accelerated adoption of the micro-mobility and ride-hail industries we are familiar with today. Connectivity can improve utilization of transportation assets and more efficiently match travel demand with supply. The introduction of micro-mobility options (including docked and dockless bicycles and electric scooters) and ride-hail epitomize the ongoing transportation and land use transformation, resulting in both potential societal benefits (improved mobility and asset utilization) and possible drawbacks (increases in congestion, scooters obstructing sidewalk access, etc.). These new mobility modes offer more options to the

traveling public and can improve transportation access locally by addressing first-mile/last-mile challenges. Connectivity can streamline trip chain planning that combines micro-mobility, ride-hail, and transit options. Such trips can be more environmentally sustainable than dedicated car trips, especially by single occupants. Connectivity today also enables drivers to re-route based on near real-time traffic updates using navigation apps, thus better utilizing the road network itself.

Other connectivity technologies are still in the burgeoning stages of deployment. For instance, the use of dedicated spectrum in the ITS safety band could improve public safety by sharing information between different transportation elements, including road infrastructure, vehicles, vulnerable road users, and the cloud. The November 2020 Federal Communications Commission (FCC) decision reallocating a portion of the 5.9 GHz radio frequency (RF) spectrum increased uncertainty around vehicle-to-everything (V2X) research and deployment. As a result, connectivity strategies to achieve V2X applications may be diverse and rely on different frequencies of the RF spectrum for different applications, pending industry consensus around the architectures, wavelengths, and technologies. In whatever form it takes, connectivity is expected to play a major part in the transportation system of the future.

Automation is the application of technology to reduce human responsibility for the dynamic driving task¹ in an effort to improve safety and potentially traffic efficiency. Since 2004 when the Defense Advanced Research Projects Agency (DARPA) Grand Challenge invigorated the automated driving industry, the number of private sector companies working on passenger and freight vehicle automation has grown from the few partners on the DARPA Grand Challenge teams to hundreds of firms, including automakers (OEMs), traditional automotive suppliers, established technology firms, startups, and others². The proliferation of SAE International Level 1 and 2 advanced driver assistance systems (ADAS), such as adaptive cruise control and lane centering, has made select automated driving features widely available to the driving public. These ADAS features have been widely adopted by the vehicle industry. SAE Level 3 through 5 advanced driving systems (ADS) are in the research and development stage with limited numbers of test vehicles being deployed by developers to conduct open-road testing and development. For the purposes of this notice, highly automated vehicles are defined as motor vehicles with taxable gross weight of 10,000 pounds or less and equipped with SAE Level 3, 4, or 5 automated driving systems per SAE standard J3016 (dated June 2018 or later).

Electrification will alter the fuel source used by most ground transportation and pivot the system from fossil fuels like gasoline and diesel to a potentially cleaner energy mix. It tightly couples the transportation and energy sectors in pursuit of a decarbonized, more environmentally sustainable transportation system. Efforts are currently underway to electrify light-duty passenger vehicles as well as medium- and heavy-duty freight vehicles, accompanied

¹ SAE International standard [J3216 202107: Taxonomy and Definitions for Terms Related to Cooperative Driving Automation for On-Road Motor Vehicles - SAE International](#)

² [Landscape of the Autonomous Driving Ecosystem \(10th edition\)](#)

simultaneously by investments in charging infrastructure and power generation to support the increased electric demand.

These three technologies and related services are anticipated to transform the way individuals choose to travel both locally and over long distances. Holistic, multi-modal transportation networks are tightly coupled with land use and development, as individual traveler choices about where to live, work, and pursue leisure aggregate into larger trends. Such trends may also have very disparate impacts on different communities: for example, safety, environmental impacts, and accessible mobility may affect underserved and disadvantaged communities very differently than they do more affluent ones. Labor participation in the new mobility workforce may likewise vary. Planning for these emerging technologies can be daunting, from understanding the uncertainties related to rapidly evolving technical capabilities to the way systems interact with each other and the surrounding geophysical, financial, and social context when the systems are deployed at scale. Yet, the need for planning is even greater as a result: it is imperative that we better understand how to navigate major technological changes such that their potential benefits accrue to all Americans, regardless of ability, location, or economic situation.

The U.S. Department of Transportation and Department of Energy (DOT/DOE) Joint Office of Energy and Transportation³ seeks to understand long-term system-level impacts from the electrification trend. Automation and connectivity trends will be studied by both this Mobility COE, as well as the USDOT Highly Automated Systems Safety Center of Excellence (HASS COE). However, these two centers will evaluate different aspects of the overall impacts: the Mobility COE will seek to understand how new multi-modal ground transportation technologies can be used to improve efficiency, mobility, and sustainability. Meanwhile, the HASS COE will focus on studying systems safety and interoperability.

Apart from these dedicated offices, there are many additional relevant US Government-funded projects and portfolios involving ground transportation system connected and automated technologies, including:

- [US Department of Energy Systems and Modeling for Accelerated Research in Transportation \(SMART\) Mobility Consortium](#)
- [USDOT Complete Streets](#)
- [USDOT Smart Cities and Communities](#)
- [USDOT Strengthening Mobility and Revolutionizing Transportation \(SMART\) Grants](#)
- [USDOT ITS4US](#)
- [Micromobility: A Travel Mode Innovation](#)
- [USDOT/NSF Award #1951890: Making Micromobility Smarter and Safer](#)
- [USDOT/NSF Award #2044026: Shared Micromobility for affordable-accessible housing \(SMILIES\)](#)
- [Micromobility Policies, Permits, and Practices](#)

³ [Home Page · Joint Office of Energy and Transportation \(driveelectric.gov\)](#)

- [Analysis of Travel Choices and Scenarios for Sharing Rides](#)
- Rural Autonomous Vehicle Program

This Notice of Funding Opportunity will establish the Mobility COE.

4. GOALS

The Mobility COE shall seek to develop an understanding of how new mobility and automated vehicles may impact the evolving transportation system when deployed at scale. It will collect, fund, and conduct research on how behaviors of emergent new technologies aggregate over time with increased market penetration and geographic scale, including system-level impacts on:

- Land use, real estate, and urban design;
- Transportation system optimization, including:
 - System-level efficiencies;
 - Travel demand and associated energy use;
 - System resilience, security, and reliability;
 - Commercial and freight operational models; and
 - Mode switching and transfers.
- Equitable access to mobility and job participation; and
- Municipal budgets and cost-effective allocation of public resources.

In concert with FHWA, the Mobility COE shall publish and release research results and tools that empower state and local governments, metropolitan planning organizations, and commercial operators to work together to make informed decisions that will achieve their shared desired outcomes and promote the USDOT's goals.

5. STATEMENT OF WORK

Task 1: Administration and Reporting

Task 1 involves the non-technical regular planning, tracking, and reporting. The Recipient will engage in the following: a project kick-off meeting within four weeks of award, monthly scheduled and also ad-hoc status conference calls, quarterly progress reports detailing work accomplished in the past quarter and work expected in the next quarter, quarterly financial reports with labor/cost/expenditure tracking, and monthly invoicing.

Task 1.1: The Recipient shall schedule and facilitate a project kick-off meeting (either virtually or in-person) with FHWA within four (4) weeks of this agreement's effective date. The location of the kick-off meeting will be determined by FHWA within one week of the agreement effective date. The Recipient shall be responsible for providing a final approved meeting agenda no later than three (3) business days prior to the kickoff meeting as well as providing full meeting minutes within ten (10) business days after the kick-off meeting.

NOTE: The kick-off meeting may be a virtual (e.g., teleconference, webinar), in-person, or hybrid format.

Task 1.2: The Recipient shall furnish an electronic copy of quarterly progress reports to the Agreement Officer (AO), Agreement Officer's Representative (AOR), and any other FHWA personnel, as instructed by the AO, on or before the 15th of the next month in accordance with the instructions in Section F.3 QUARTERLY PROGRESS REPORTS. Each report shall contain concise statements covering the activities relevant to the statement of work including, but not limited to:

- a. A clear and complete account of the work performed during the period.
- b. An outline of the work to be accomplished during the next reporting period.
- c. A description of any problem encountered or anticipated that will affect the completion of the work within the time and fiscal constraints as set forth in the contract, together with recommended solutions to such problems.
- d. Preliminary or interim results, conclusions, trends, or other items of information that may be of timely interest to FHWA.
- e. A comparison of current and completed activities against planned schedule of activities.
- f. A tabulation of the current and cumulative labor expended by the personnel, compared against planned labor expenditures.
- g. A tabulation of the current and cumulative costs expended by cost element (labor, travel, indirect costs, subcontractors, etc.) versus budgeted costs, for the Federal share and the cost share.

Task 1.3: The Recipient shall facilitate monthly conference calls with FHWA to discuss the status of the projects and products of the Mobility COE. The Recipient shall submit a summary of the topics discussed during each monthly conference call to the AOR and any other FHWA personnel as instructed by the AOR within five (5) business days following each call.

Task 1 Deliverables:

- *Kick-Off Meeting Agenda and Minutes*
- *Facilitation of Monthly Calls*
- *Conference Call Notes/Summaries (as performed)*
- *Quarterly Progress Reports*

Task 2: Establish Steering Committee

The Recipient shall conduct outreach to relevant Stakeholders and, in consultation with the FHWA, assemble a Steering Committee (SC) comprised of approximately 5-10 individuals representing diverse perspectives. The FHWA shall chair the SC. Stakeholders are defined as potential end users of the research, analysis, tools, and other work products generated by the Mobility COE. They may be from the public, non-profit/not-for-profit, or private sectors. The purpose of the SC will be to exchange facts and/or information relevant to the efforts of the Mobility COE. In addition, the SC will participate in information-gathering and sharing sessions related to cutting edge and emerging issues, and potential gaps that are relevant to the Mobility COE's Mission, and success in the advancement of new mobility and automated vehicle technologies. The SC will also be responsible for evaluating the Mobility COE's research

progress, monitoring the quality of its outputs, and ensuring that the Mobility COE activities align with the requirements of the cooperative agreement. SC member selection, term limits, and other processes shall be mutually decided between the Recipient and the FHWA.

The Recipient will convene the SC twice per year except for Option Period 3 (Year 5) where one meeting shall be held. Meetings may be in-person, virtual, or hybrid.

The Mobility COE shall provide logistical support in preparing working sessions with the SC, such as meeting invitations and facilitation, correspondence between the Mobility COE and SC members, and meeting agendas and minutes.

A proposed schedule of meeting dates with the SC shall be provided within eight (8) weeks of this agreement effective date. The first face-to-face or virtual working session with the SC shall be held within six (6) months of this agreement effective date. The recipient will facilitate the session, take minutes, and disseminate minutes.

Task 2 Deliverables:

- *A finalized list of potential candidates for the SC will be submitted by the Recipient within two (2) months of this agreement effective date for consideration by FHWA.*
- *Publish SC meeting minutes*

Task 3: Define research agenda

In collaboration with the SC, the Recipient shall define a research agenda based on a preliminary literature review and assessment of research gaps and needs. The research should also identify and publish a report on transportation system-level performance metrics of interest that promote safety, efficiency, sustainability, equity, and municipal budgets. A five-year research agenda will be proposed. FHWA may participate as chair of the SC, which will review and concur with the Mobility COE's proposed research agenda. As an example, the COE may choose to address topics related, but not limited, to the following:

- Residential and commercial land use
 - Zoning (e.g., setbacks, hours, etc.)
 - Land resource management (e.g., parking, curbs, etc.)
- Optimizing to meet supply and demand
 - Operations/efficiency
 - Energy
 - Resilience, security, and reliability
 - Budgets
- Human-centered design
 - Safety
 - Mobility equity
 - Workforce equity
- Analyses processes to help stakeholders understand how to plan pathways (technologies, policies, economics, etc.) to reach notional system performance goals

Task 3.1: For year 1, the Recipient or its selected delegate organization(s) shall synthesize existing research on the effects of emergent technologies and new mobility services as those technologies that are deployed at scale. This will be used to identify research gaps.

Task 3.2: Define a five-year research agenda based on research gaps identified under Task 3.1. The research agenda shall be revisited annually to ensure relevance as technologies quickly evolve. The research agenda shall also propose approaches to identify which technological, economic, behavioral, and policy levers are expected to have greatest impact on system-level performance metrics.

Task 3 Deliverables:

- *Report describing performance metrics and how to measure them, due within 12 months of signed agreement*
- *Report and presentation outlining 5-year research agenda, due within 12 months of signed agreement*
- *Report and presentation on annual updates to research agenda*

Task 4: Select, conduct, and/or fund research

To produce research that creates novel insights, the Mobility COE is encouraged to establish strong, creative, and unique partnerships that leverage multiple organizations' expertise and capabilities in modeling, analysis, big data analytics, statistics, artificial intelligence (AI) and machine learning (ML), freight logistics, operations research, business and operational models, emergent technology demonstrations, systems engineering, urban planning, ecology (natural, transportation-system, or otherwise), and stakeholder outreach.

Task 4.1: The Recipient and its core partners shall conduct research in alignment with the research agenda defined under Task 3. The Recipient shall define a matrix of technical core competencies and strengths and identify which of it or its partners is best suited to perform in what area.

Task 4.2: For research needs outside the expertise of the Recipient and its partnering institutions, the Recipient is encouraged to select and fund research by other organizations based on the research agenda defined under Task 3. The selection process may be competitive, but to avoid any potential conflicts of interest, no organization represented on the Steering Committee may be funded.

Task 4 Deliverables:

- *Matrix identifying organizational technical strengths*
- *Selection of at least 2 research projects in the first year*

Task 5: Publish research and engage with stakeholders

Task 5.1: White Papers and Reports

Task 5.1.1: The Recipient shall author and publish White Papers or equivalent that will synthesize existing work as well as research gaps in each of the selected research focus areas identified under Task 3, with all relevant references cited. At a minimum, one White Paper shall be submitted annually. It is anticipated that these syntheses will inform Task 3.2.

Task 5.1.2: The Recipient shall write and publish annual reports describing results of research regarding impacts of new mobility and highly automated vehicles.

In year 1, this annual report will serve as the basis of FHWA's report to the Congressional Committees on Environment and Public Works and Commerce, due no later than one year after the Mobility COE is established. Therefore, the draft final report shall be due to USDOT no later than 9 months after award. The report may leverage findings from the study of impacts on roads from self-driving vehicles that was commissioned under Section 11504 of the Bipartisan Infrastructure Law passed in 2021.

In years 2-5, the annual report shall be delivered to FHWA in 12-month increments.

Task 5.1.3: As appropriate, the Recipient shall write and publish final research reports for research funded or performed by the COE within 3 months of the conclusion of each research project.

Task 5.2: The Recipient shall share and transfer knowledge by forming and operating an online, public-facing clearinghouse to publish research results and products funded and/or performed by the Mobility COE. This may include reports, analysis results, data sets, open-source software, training materials, process documents, and best practices of interest to its stakeholders. The clearinghouse shall also disseminate resources relevant to its mission that may be created by other organizations. At the end of the period of performance, when this Mobility COE is re-competed, all clearinghouse materials will be transferred to the new awardee if it is a different organization.

The Mobility COE shall aim to provide products and tools developed and identified under Task 4 that state and local governments, planners, and private sector operators may leverage to inform their decision-making about what investments and policies to make.

To support the clearinghouse, the Mobility COE shall provide:

- Website maintenance and improvements, including configuration management, administration, troubleshooting, and fixing links; adapting to new Web standards; and search engine optimization requirements and updates to ensure the Website and its resources are easily accessible.
- Material from Mobility COE events and activities, such as peer exchanges and summits.
- Web pages for key topics such as syntheses of best practices and key information, tools, and communities of practice.

- Direct links and access to resources and activities supported by other groups (FHWA, AASHTO, APA/AICP, ITS America, etc.).
- Multiple knowledge transfer delivery methods to meet the communications needs of users, such as features to increase accessibility through closed captioning, audio services, and improved video delivery methods.

The Mobility COE clearinghouse may provide integration with existing industry tools, resources, and databases to leverage these existing information sources. It may also provide forums for managing and sharing lessons learned, emerging technologies, and research and development opportunities and capabilities.

Task 5.3: The Recipient shall hold and/or participate in public events and conferences in which research products are discussed and publicized to potential stakeholders. A calendar of events of interest to stakeholders may be linked from the online clearinghouse.

The Recipient shall establish a strategy for engaging the stakeholder community, identifying emerging needs, and providing opportunities for feedback on the Mobility COE's research results.

Task 5 Deliverables

- *Annual white papers synthesizing and summarizing existing research on effects of emergent technologies deployed at scale, delivered on a 12-month cadence.*
- *For year 1, publish annual report no later than 9 months after award.*
- *For years 2-5, publish annual reports summarizing COE activities on a 12-month cadence.*
- *Publish final reports for research projects funded or performed by the COE.*

SECTION B – FEDERAL AWARD INFORMATION

1. FUNDING AND NUMBER OF AWARDS

The FHWA anticipates making one award(s) as a result of this Notice of Funding Opportunity.

The FHWA anticipates Federal funding up to a total amount of \$1,500,000 per year may be made available for this Agreement, subject to the availability of funds, for a total potential Federal share of \$7,500,000. In the application, applicants must identify at least two partnering organizations and the associated roles and responsibilities of each partner organization in order to fully cover the breadth of research topics.

2. TYPE OF AWARD

The planned award type is a cost reimbursement **Cooperative Agreement** with an 80/20 funding match.

3. PERIOD OF PERFORMANCE

The period of performance will consist of one 24-month Base period, with up to three (3) 12-month Option periods. The total potential period of performance if all option periods are exercised, is 60 months. The period of performance will begin on the effective date of the award, as stated in the resulting grant agreement, and end on the period of performance end date that is listed in the signed grant agreement.

4. DEGREE OF FEDERAL INVOLVEMENT

The FHWA anticipates substantial Federal involvement between it and the Recipient during the course of this project. The anticipated Federal involvement will include:

- Participation in the SC;
- Technical assistance and guidance to the Recipient;
- Close monitoring of performance;
- Review and selection of appropriate research topics;
- Review and comment on draft and final documents, as appropriate;
- Involvement in technical decisions; and
- Participation in status meetings including kick off meeting, monthly conference calls, and annual technical and budget reviews.

Federal involvement is not expected to include responsibility for the day-to-day management of the Mobility COE or its associated research projects.

SECTION C – ELIGIBILITY INFORMATION

1. ELIGIBLE APPLICANTS

This competition is open to all eligible parties and their partnering organizations. Eligible parties include, but are not limited to, institutions of higher education, public research entities (e.g., University Affiliated Research Center (UARCs), Federally Funded Research and Development Center (FFRDCs), national laboratories, etc.), and private research entities.

2. COST SHARING OR MATCHING

Cost sharing or matching is required.

The Federal Share of the cost of activities carried out by the **New Mobility and Automated Vehicles Center of Excellence** under Title 23 Section 503(c) is **80** percent. Program income must be handled in accordance with Section F.

Cost sharing or matching means the portion of project costs not paid by Federal funds (unless otherwise authorized by Federal statute). For a more complete definition, please see the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 CFR Part 200, including section 200.306 on Cost Sharing or matching. Other Federal funds using their appropriate matching share may be leveraged for the deployment but cannot be considered as part of the recipient's matching funds, unless otherwise supported by statute. Applicants should refer to section D.2 of this opportunity for more information about submission requirements concerning cost sharing under this program.

FHWA will not consider previously incurred costs or previously expended or encumbered funds towards the matching requirement for any project. Matching funds are subject to the same Federal requirements as awarded funds.

The matching requirements will be monitored by FHWA over the life of this effort. At the conclusion of the Agreement, FHWA will determine whether the 20 percent cost sharing percent matching requirement has been achieved in accordance with closeout and post closeout requirements in 2 CFR 200.344 and 200.345.

SECTION D - APPLICATION AND SUBMISSION INFORMATION

1. ADDRESS TO REQUEST APPLICATION PACKAGE

Applicants may obtain application forms at [grants.gov](https://www.grants.gov) under the Notice of Funding Opportunity Number cited herein.

The Applicant must complete and submit all forms included in the application package for this Notice as contained at www.grants.gov.

2. CONTENT AND FORM OF APPLICATION SUBMISSION

Applicants shall submit an application consisting of the following application volumes and sections:

- a. Tables are permitted and text in tables must be doubled spaced.
- b. Text in captions below charts, tables or figures shall not be less than 10-point and may be 2 lines of text long (limited by the width of the chart, table, or figure) and single spaced.
- c. Page margins shall be a minimum of 1-inch top, bottom, and each side.
- d. Page numbers may be located within the 1-inch margins
- e. A Header or Footer identifying the Applicant/Team and the Volume may be located within the 1-inch margins
- f. No cost/price data will be included in Volume I but shall be included in Volume II.

Table D.1 – Application Volumes

Volume	Section	Page Limitations
Volume I. Technical Application	Cover Page	One (1) file, 25- page limit
	I – Technical and Management Approach	
	II – Staffing Approach (resumes are <u>not</u> included in the pages limitation but shall not exceed 2 pages each)	
	III – Experience	
Volume II. Budget Application*	I – Application Standard Forms	One (1) file, no page limit
	II – Summary Budget Plan	
	III – Subaward Information	
	IV – Organizational Information	

NOTES: Applicants shall provide resumes in Volume 1 of the application. Resumes will not count against the page limit; however, each resume must not exceed 2 pages.

For the submitted application package, FHWA suggests that pictures, graphics, and other large files be reduced in number and quality to keep the size of the files of the application manageable.

The application package must consist of the following in this order:

APPLICATION FORMS:

1. SF-424

Note: Applicants may leave fields 5a, 5b, 6, 7, and 13 blank on the form.

Note: A number of separate PDF flat files must be attached in Item 15 to provide required project information that is not included in the body of the SF-424.

Instructions for adding Item 15 Attachments:

- Click on “Add Attachments” in Item 15 to open the first pop-up window. Click “Add Attachment” and a second pop-up File Explorer/Directory window will appear, from which you can choose files to attach. Attachments can be added one at a time or all at once by holding down the CTRL key and selecting multiple files. Select “Open” to add the selected files as attachments.
- Click “Done” to finalize the attachments.
- Click “View Attachments” to see a list of files that have been added as attachments.

2. SF-424A

Note: Section A:

- Block 1(a): fill-in opportunity title listed on page 1;
- Block 1(b): fill-in CFDA number listed on page 1;
- Block 1(c): fill-in Total Federal Funds Requested in dollars; and,
- Block 1(d): fill-in Total Cost Share in dollars, and leave columns (e), (f), and (g) and rows 2, 3, and 4 blank.

3. SF-424B

4. SFLLL

Note: The form must be completed and submitted even if no lobbying to report. If no lobbying to report insert none or n/a in the relevant blocks.

Required attachments: the following files must be added as Attachments to Item 15 of the SF-424:

- **Volume 1 – Technical Application** as described below – maximum of 10,000 words, with minimum 12-point font, double spaced, each Part can be included as a separate attachment.
 - Part I – Technical and Management Approach (*included* in the page limit)
 - Part II – Experience (*included* in the page limit)

- Part III – Staffing Approach (*included* in the page limit; resumes are *not included* in the page limit)
- **Volume 2 – Budget Application** as described below - no page limit
 - Cost Information and Other Financial Information

Submit your attachments in the following format:

Volume 1 - Technical Application

Volume 1 – Technical Application as described below (see page limitations above).

OPTIONAL: An Applicant may include, at their option, a one-page cover page and a second page to include both a Table of Contents and/or a Listing of Tables/Figures to facilitate displaying the organization of their application. These pages are for orienting evaluators to the contents of the application package and will not be evaluated and are not included in the Volume I page limitation.

In the event a technical application exceeds the page limitation, the Government will evaluate only the first pages identified within the limitation above.

- a. Part I – TECHNICAL AND MANAGEMENT APPROACH: A detailed technical and management plan describing in detail how you would proceed if awarded this Agreement. Discuss and describe the ability of the proposed project to meet the purpose and objectives of this program, and the manner in which they will be addressed by your project. Objectives include understanding how, when deployed at scale, new mobility and automated vehicles may impact:
 - The evolving transportation system;
 - Land use, real estate, and urban design;
 - Transportation system optimization;
 - Equitable access to mobility and job participation; and
 - Municipal budgets and cost-effective allocation of public resources.

Discuss and describe proposed performance metrics, milestones, and deliverables. Provide a table listing all proposed milestones and deliverables and estimated dates, based on time from award.

- b. Part II – EXPERIENCE: A summary of the Applicant’s experience relevant to this project, listing projects of similar size and complexity over the past five years, and show which of the named key staff were involved in those projects. List the following information for a minimum of three specific past projects in which the Applicant participated as project leader and/or member of project team:
 - Project title, description, value, and dates;

- Sponsor/customer point of contact to include sponsor/customer name, title, organization, email address, phone number;
- Role of Applicant in project;
- Explanation of why or how the project is considered relevant or similar to the effort required by this Notice of Funding Opportunity; and
- Explanation of the project goals accomplished and any cost growth or schedule delays encountered. For any projects which did not/do not successfully achieve its goals, a brief explanation of the reason(s) for such shortcomings and any demonstrated corrective actions taken to avoid recurrence.

NOTE: In determining relevancy, consideration should be given, but not limited to, such things as product/service similarity, size and complexity, Agreement type, division of company proposing, recency of accomplishments, and sub-recipient interaction.

NOTE: Prior to award, FHWA may contact past sponsors or customers to support the agency's risk assessment of the application.

NOTE: If an Applicant does not have a history of relevant experience, or if past performance information is not available, the Applicant's experience will be considered to be neutral.

- c. Part III – STAFFING APPROACH: Provide a project organizational chart identifying proposed staff members assigned to the project. The chart must be supported with narrative text to include the title and a brief description of each position's responsibilities, as well as the proposed level of effort and allocation of time (% in relation to their other duties) for each position on a yearly basis and in summary format. The level of effort may be displayed (single spaced) in a table format. One table can be presented if the level of effort will be constant over all years, and the table is annotated as such. The hours in this table must be consistent with the information presented in Volume II, Parts I and II, as part of the detailed budget plan. Provide brief *tailored* resumes for the proposed Program Manager, Principal Investigator, and other key personnel to include name, experience, education, and proposed role in project.

Volume 2 - Budget Application

Volume 2 – Budget Application as described below - no page limit

NOTE: If needed, the FHWA may request additional budget information to clarify an application.

OPTIONAL: An Applicant may include, at their option, a one-page cover page, and a second page to include both a Table of Contents and/or a Listing of Tables/Figures to facilitate displaying the organization of their application. These pages are for orienting evaluators to the contents of the application package and will not be evaluated.

Part II – COST INFORMATION AND OTHER FINANCIAL INFORMATION

Provide a SF-424A Budget Information - Non-Construction Programs and a separate detailed budget plan for each year and summarize the information for all years for all activities. The format of the budget plan is at the discretion of the recipient, but spreadsheets may be formatted similarly to the format in DOT Form 4220.44, located at:
https://www.fhwa.dot.gov/cfo/pdf/frm4220_44.pdf.

The detailed budget plan must include each of the following items/sub-items:

1. Detailed Excel® (or compatible) workbook containing spreadsheets/tabs (formatted to be printed out) and supporting information clearly delineating and supporting all estimated costs: with columns for Federal Share, Cost Share (if applicable) and Total Costs (per year and in summary form) as follows:
 - a. Personnel Labor Rates- Direct labor-by-labor categories to include hours, rates and annual escalation. Anticipated promotions for any personnel must be included with the escalation calculation. The annual direct labor escalations rate and its basis should be clearly stated with the proposal. Discuss your proposed rate as compared to historical experience and include when and how escalation will be calculated/implemented.
 - b. Indirect Rates- Discuss your proposed fringe benefits and indirect costs and rates for all years. Identify all the various specific indirect rates including what they are (pool and base), and what they are based on (e.g., labor overhead based on direct labor dollars) and how they are applied/calculated. Provide dollar values as well as percentages. Please also provide any audit information to support these rates (for example, a copy of signed Department of Health of Human Services rate agreement).

Note: Per 2 CFR 200.414(f), Indirect (F&A) Costs, an Applicant may elect to propose a de minimis indirect rate of 10% of modified total direct costs.

- c. Other Direct Costs- Applicants must provide a breakout and justification of Other Direct Costs by Category (travel, equipment, supplies, etc.)
 - d. If contractors and/or subrecipients (lower-tiered organizations or individual consultants) will be used in carrying out this project, the following minimum information concerning such, must be furnished:
 - i. Name and address of the organization or consultant;
 - ii. Description of the portion of work to be conducted by the organization or consultant;
 - iii. Cost details for that portion of work;
 - iv. **For Contractors, applicant's cost/price analysis of each contractor showing how their cost/price is fair and reasonable;** and
 - v. Letter of commitment from each sub-recipient (this includes any sub-recipient that will be included in the Federal share, the non-Federal share or in a non-paid (volunteer) capacity).
 - e. Provide detail and support for cost share as part of overall project budget.
 - f. Clearly delineate cost share match versus Federal share.
2. Identify any exceptions to the anticipated award terms and conditions as contained in Section F, Federal Award Administration Information. Identify any preexisting intellectual property that you anticipate using during award performance, and your position on its data rights during and after the award period of performance.
 3. The use of a Unique Entity Identified (UEI) is required on all applications for Federal grants or cooperative agreements. Please provide your organization's UEI number in your budget application.
 4. A statement to indicate whether your organization has previously completed an A-133 Single Audit and, if so, the date that the last A-133 Single Audit was completed.
 5. A statement regarding Conflicts of Interest. The Applicant must disclose in writing any actual or potential personal or organizational conflict of interest in its application that describes in a concise manner all past, present or planned organizational, contractual or other interest(s), which may affect the Applicant's ability to perform the proposed agreement in an impartial and objective manner. Actual or potential conflicts of interest may include but are not limited to any past, present or planned contractual, financial, or other relationships, obligations, commitments or responsibilities, which may bias the Applicant or affect the Applicant's ability to perform the agreement in an impartial and objective

manner. The AO will review the statement(s) and may require additional relevant information from the Applicant. All such information, and any other relevant information known to DOT, will be used to determine whether an award to the Applicant may create an actual or potential conflict of interest. If any such conflict of interest is found to exist, the AO may (a) disqualify the Applicant, or (b) determine that it is otherwise in the best interest of the United States to contract with the Applicant and include appropriate provisions to mitigate or avoid such conflict in the agreement pursuant to 2 CFR 200.112.

6. A statement to indicate whether a Federal or State organization has audited or reviewed the Applicant's accounting system, purchasing system, and/or property control system. If such systems have been reviewed, provide summary information of the audit/review results to include as applicable summary letter or agreement, date of audit/review, Federal or State point of contact for such review.
7. Terminated Contracts - List any contract/agreement that was terminated for convenience of the Government within the past 3 years, and any contract/agreement that was terminated for default within the past 5 years. Briefly explain the circumstances in each instance.
8. Describe how your organization will obtain the necessary resources to fund and fulfill the proposed cost share, as applicable.
9. The Applicant is directed to review Title 2 CFR §170 (http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr170_main_02.tpl) dated September 14, 2010, and Appendix A thereto, and acknowledge in its application that it understands the requirement, has the necessary processes and systems in place, and is prepared to fully comply with the reporting described in the term if it receives funding resulting from this Notice. The text of Appendix A will be incorporated in the award document as a General Term and Condition as referenced under this Notice's Section F, Federal Award Administration Information.
10. Disclose any violations of Federal criminal law involving fraud, bribery, or gratuity violations. Failure to make required disclosures can result in any of the remedies described in 2 CFR 200.339 entitled Remedies for Noncompliance, including suspension or debarment. (See also 2 CFR Part 180 and 31 U.S.C. 3321).
11. If a nonprofit or not-for-profit status, please provide evidence of this status preferably from the Internal Revenue Service

3. UNIQUE ENTITY IDENTIFIER AND SYSTEM FOR AWARD (SAM)

The Applicant is required to: (i) be registered in SAM before submitting its application; (ii) provide a valid unique entity identifier in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency.

The Federal awarding agency may not make a Federal award to an Applicant until the Applicant has complied with all applicable unique entity identifier and SAM requirements. If an Applicant has not fully complied with the requirements by the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the Applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another Applicant.

4. SUBMISSION DATES AND TIMES

The application must be received electronically through www.grants.gov by the application due date/time listed on page 1 of this Notice of Funding Opportunity.

The deadline stated on page 1 is the date and time by which the agency must receive the full and completed application, including all required sections.

A late application will not be reviewed or considered unless the AO determines that doing so is in the FHWA's best interest.

5. INTERGOVERNMENTAL REVIEW

An application under this Notice of Funding Opportunity is not subject to the State review under E.O. 12372.

6. FUNDING RESTRICTIONS

The FHWA will not reimburse any pre-award costs or application preparation costs under this proposed Agreement.

7. OTHER SUBMISSION REQUIREMENTS

In the event of system problems or technical difficulties with the application submittal, Applicants should contact the FHWA point of contact designated on page 1. If Applicants are unable to use the system due to technical difficulties, Applicants must e-mail applications to the FHWA point of contact listed on page 1 no later than the application deadline cited above.

<end of section>

SECTION E - APPLICATION REVIEW INFORMATION

C. CRITERIA

The Government will evaluate applications on following criteria:

MERIT: FHWA will evaluate and rank the applications against the following technical evaluation criteria. These criteria are distinct from eligibility criteria (see Section C) that are addressed before an application is accepted for review.

- The proposal documents a demonstrated understanding of the overarching objective of the proposed Center of Excellence in new Mobility and Automated Vehicles and outlines a potential research agenda of interest.
- The proposing organizations have demonstrated capability to form and lead multidisciplinary teams with knowledge and relevant experience in completing the type of research that will be under the purview of the proposed Center of Excellence in New Mobility and Automated Vehicles.
- The proposal identifies partners and corresponding scopes of partnerships, then articulates how research will be strengthened by the partnerships.
- The proposal includes specific and detailed qualification of key personnel in evaluating, planning, and conducting the type of research that will be under the purview of the proposed Center of Excellence in New Mobility and Automated Vehicles.
- The proposal includes a clearly described management approach for establishment of the proposed Center of Excellence in New Mobility and Automated Vehicles, a team of both internal and external research partners, and a Steering Committee.
- The proposal describes how the proposing organization and its partners consider equity in their research.

COST: Relative cost will be considered in the award decision. The budget application will be analyzed to assess cost reasonableness and conformance to applicable cost principles. This evaluation factor will not be rated.

If applicable, the degree of cost share and leveraging of non-federal funds will be considered in the award decision. Applicants must provide the required matching funds and supporting detail for these funds. Additional cost sharing will be considered beneficial to break ties among applications with equivalent ratings after evaluation against all other factors.

Funding availability will also be considered in the award decision.

After evaluation of the criteria and degree of cost share, the government may take into account the following key Departmental objectives:

- a. Supporting economic vitality at the national and regional level;
- b. Utilizing alternative funding sources and innovative financing models to attract non-Federal sources of infrastructure investment;

- c. Accounting for the life-cycle costs of the project to promote the state of good repair;
- d. Using innovative approaches to improve safety and expedite project delivery; and
- e. Holding grant recipients accountable for their performance and achieving specific, measurable outcomes identified by grant applicants.

D. REVIEW AND SELECTION PROCESS

FHWA will utilize the following merit review process to evaluate applications:

A panel of agency experts will evaluate all eligible technical applications using the merit criteria listed above. The panel will individually evaluate the technical applications. The panel will then collectively assign an adjectival rating to each eligible technical application using the following merit ratings: Exceptional, Satisfactory, Marginal, and Unsatisfactory.

Agency personnel from the FHWA Office of Acquisition and Grants Management will evaluate the cost criteria listed above and conduct a risk assessment of the Applicant prior to award as described below.

The Government will accept the application that is considered the most advantageous to the Government using the criteria cited above, and subject to the results of an Applicant risk assessment. Applications selected for possible award using the criteria cited above, will undergo the following risk assessment prior to award. The Government reserves the right to not make an award to an Applicant based on the results of the risk assessment.

The AO is the official responsible for final award selection. The Government is not obligated to make any award as a result of this notice.

Risk Assessment

The Government will assess the risks posed by an Applicant before they receive an award. This Risk Assessment will include evaluation of some or all of the following items relative to the Applicant and/or sub-applicants as applicable:

- (1) Applicant's financial stability;
- (2) Applicant's quality of management systems and ability to meet the management standards prescribed in 2 CFR Part 200;
- (3) Applicant's history of performance;

Note: History of performance includes the Applicant's record in managing Federal awards, if it is a prior Recipient of Federal awards, including timeliness of compliance with applicable reporting requirements, conformance to the terms and conditions of previous Federal awards, and if applicable, the extent to which any previously awarded amounts will be expended prior to future awards. The Government will evaluate the relevant merits of the Applicant's history of performance based on its reputation and

record with its current and/or former customers with respect to quality, timeliness and cost control. The history of performance will be reviewed to assure that the Applicant has relevant and successful experience and will be considered in the risk assessment. In evaluating history of performance, the Government may consider both written information provided in the application, as well as any other information available to the Government through outside sources.

(4) Applicant's audit reports and findings from audits performed on the Applicant pursuant to 2 CFR Part 200 Subpart F—Audit Requirements or the reports and findings of any other available audits;

(5) Applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities;

(6) Applicant's potential for conflict of interest if applicable; and

Note: The FHWA will review information provided by the Applicant, and any other relevant information known to DOT, to determine whether an award to the Applicant may create an actual or potential conflict of interest. If any such conflict of interest is found to exist, the AO may (a) disqualify the Applicant, or (b) determine that it is otherwise in the best interest of the United States to award to the Applicant and include appropriate provisions to mitigate or avoid such conflict in the Agreement pursuant to 2 CFR 200.112.

(7) Applicant's eligibility to receive Federal funding. Per the guidelines on government-wide suspension and debarment in 2 CFR Part 180, the Government will confirmation that the Applicant and any named sub-applicants are not debarred, suspended or otherwise excluded from or ineligible for participation in Federal programs or activities.

Pursuant to 2 CFR Part 200.206, prior to making a Federal award, the Federal awarding agency is required to review information available through any OMB-designated repositories of government-wide eligibility qualification or financial integrity information, such as Federal Awardee Performance and Integrity Information System (FAPIIS), Dun and Bradstreet, and "Do Not Pay." At a minimum, the information in the system for a prior Federal award recipient must demonstrate a satisfactory record of executing programs or activities under Federal grants, cooperative agreements, or procurement awards; and integrity and business ethics.

If FHWA does not make a Federal award to a non-Federal entity because the official determines that the non-Federal entity does not meet either or both of the minimum qualification standards as described in 2 CFR 200.206, the FHWA will report that determination in FAPIIS.

E. ANTICIPATED ANNOUNCEMENT AND FEDERAL AWARD DATES

The FHWA anticipates making award on or about **September 22, 2023**.

SECTION F – FEDERAL AWARD ADMINISTRATION INFORMATION

1. FEDERAL AWARD NOTICES

If your organization's application is selected for award, you will be notified and sent an award document for signature. Applicants not selected for award will be notified in writing by FHWA.

Only the AO can commit the FHWA. The award document, signed by the AO, is the authorizing document. Only the AO can bind the Federal Government to the expenditure of funds.

Notice that an Applicant has been selected as a Recipient does not constitute approval of the application as submitted. Before the actual award, FHWA will enter into negotiations concerning such items as program components, staffing and funding levels, and administrative systems, if necessary. If the negotiations do not result in an acceptable submittal, the FHWA reserves the right to terminate the negotiation and decline to fund the Applicant.

2. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

All awards will be administered pursuant to the Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards found in 2 CFR Part 200, as adopted by DOT at 2 CFR Part 1201. Applicable Federal laws, rules and regulations set forth in 23 U.S.C. and 23 CFR and 49 CFR also apply.

A. TRAVEL

Travel and per diem authorized under the cooperative agreement will be reimbursed in accordance with the travel cost section of 2 CFR 200.475.

B. RECIPIENT INTEGRITY AND PERFORMANCE MATTERS

If the Federal Share of this award will be more than \$500,000 over the period of performance, the reporting requirements in 2 CFR Part 200, Appendix XII (Award Term and Conditions for Recipient Integrity and Performance Matters) will apply.

GENERAL CLAUSES

General terms, conditions, and governing regulations that apply to this agreement are available online at:

[Contractors & Recipients General Terms and Conditions for Assistance Awards | Federal Highway Administration \(dot.gov\):
https://www.fhwa.dot.gov/cfo/contractor_recip/gtandc_generaltermsconditions.cfm](https://www.fhwa.dot.gov/cfo/contractor_recip/gtandc_generaltermsconditions.cfm)

and

2 CFR Part 1201

Applicable Federal laws, rules, and regulations set forth in title 23 U.S.C. and 23 and 49 CFR shall also apply to awards provided under this program.

Special terms and conditions follow:

A. AVAILABLE FUNDING

The total estimated amount of Federal funding that may be provided under this Agreement is \$_____ (to be filled in at award) for the entire period of performance, subject to the limitations shown below:

(1) Currently, Federal funds identified on page 1 of the award document, are obligated to this agreement.

(2) Subject to availability of funds, and an executed document by the AO, the difference between the current funding and the total estimated amount of Federal funding may be obligated to this Agreement.

(3) The FHWA's liability to make payments to the Recipient is limited to those funds obligated under this Agreement as indicated above and any subsequent amendments.

B. INDIRECT COSTS

Indirect costs are allowable under this Agreement in accordance with the Recipient's Federally Negotiated Indirect Cost Rates as documented in writing and approved by the Recipient's cognizant Government agency. In the absence of such Government-approved indirect rates, the following rates are hereby approved for use under this agreement as shown below:

<i>Type*</i>	<i>Indirect Rate</i>	<i>Period</i>	<i>Rate (%)</i>	<i>Base</i>
(*** Information to be filled in at award ***)				

*Types of Rates: Pred = Predetermined; Fixed = Fixed; Final = Final;
Prov = Provisional/billing; or De minimus.

In the event the Recipient determines the need to adjust the above listed rates, the Recipient will notify the AO of the planned adjustment and provide rationale for such adjustment. In the event such adjustment rates have not been audited by a Federal agency, the adjustment of rates must be pre-approved in writing by the AO.

This Indirect Cost provision does not operate to waive the limitations on Federal funding provided in this document. The Recipient's audited final indirect costs are allowable only insofar as they do not cause the Recipient to exceed the total obligated funding.

C. KEY PERSONNEL

Pursuant to 2 CFR 200.308(c)(2), the Recipient must request prior written approval from the AO for any change in Key Personnel specified in the award. The following person(s) are/have been identified as Key Personnel:

Name	Title/Position
(***) to be filled in at award (***)	

D. PROGRAM INCOME

Pursuant to 2 CFR 200.307, Program income earned during the agreement period must be added to the Federal award and used for the purposes and under the conditions of the Federal award, unless otherwise approved by the AO. Program income must not be used to offset the Federal or Recipient contribution to this project.

E. SUBAWARDS

Unless described in the application and funded in the approved award, the Recipient must obtain prior written approval from the AO for the subaward, transfer, or contracting out of any work under this award. This provision does not apply to the acquisition of supplies, material, equipment, or general support services.

The following subawards are currently approved under the Agreement:

Name
(***) to be filled in at award (***)

F. CONFERENCE SUPPORT RESTRICTIONS

The Recipient must obtain written approval from the AOR prior to incurring any costs for conference support. See the definition of conference as contained in 2 CFR 200.432.

Food and beverage costs are not allowable conference expenses for reimbursement under this Agreement.

Note: Costs of meals are allowable as a travel per diem expense for individuals on travel status and pursuant to the Travel clause of this Agreement.

G. PERSONALLY IDENTIFIABLE INFORMATION (PII)

Personally Identifiable Information (PII) as defined at 2 CFR Part 200.1 will not be requested unless necessary and only with prior written approval of the AO with concurrence from the AOR.

H. PUBLIC ACCESS TO DOCUMENTS

The Applicant agrees that the resulting deliverables/documentation submitted to the FHWA under this Agreement may be posted online for public access and/or shared by FHWA with other interested parties. The FHWA anticipates the documents cited herein may be posted on an FHWA website or other appropriate website.

I. PUBLIC ACCESS REQUIREMENTS AND COMPLIANCE

In response to the White House Office of Science and Technology Policy memorandum dated February 22, 2013, entitled *Increasing Access to the Results of Federally Funded Scientific Research*, DOT is incorporating Public Access requirements into all funding awards (grants and cooperative agreements) for scientific research. This section sets forth the requirements a funding recipient must satisfy to be in full compliance with the USDOT Public Access plan. For all wholly or partially federal funded scientific research agreements, the Recipient hereby agrees to comply with the requirements of the USDOT Public Access plan. The Recipient is required to include these obligations in any sub-awards or other related funding agreements. The full requirements of the DOT Public Access plan requirements include, but are not limited to, the following:

1) Copyright License

Recipient hereby grants to the USDOT a worldwide, non-exclusive, non-transferable, paid-up, royalty-free copyright license, including all rights under copyright, to any and all Publications and Digital Data Sets as such terms are defined in the USDOT Public Access plan, resulting from scientific research funded either fully or partially by this funding agreement. Recipient herein acknowledges that the above copyright license grant is first in time to any and all other grants of a copyright license to such Publications and/or Digital Data Sets, and that USDOT shall have priority over any other claim of exclusive copyright to same.

2) Reporting and Compliance Activities

Recipient hereby agrees to satisfy the reporting and compliance requirements as set forth in the USDOT Public Access plan, including, but not limited to, the submission and approval of a Data Management Plan, the use of Open Researcher and Contributor ID (ORCID) numbers, the creation and maintenance of a research project record in the Transportation Research Board's (TRB) Research in Progress (RiP) database, and the

timely and complete submission of all required publications and associated digital data sets as such terms are defined in the DOT Public Access plan. Additional information about how to comply with the requirements can be found at: <https://ntl.bts.gov/public-access/how-comply>

3) Section 508 Requirements

The following applies to all FHWA Contracts issued on or after January 18, 2018, containing Information and Communication Technology (ICT) as a deliverable. In addition to the work requirements specified in this statement of work, vendors must ensure that all ICT that they prepare will meet the requirements of Section 508 of the Rehabilitation Act and the Information and Communication Technology (ICT) Final Standards and Guidelines (508 Refresh) at 36 CFR Part 1194.

As defined in the 508 Refresh, at 36 CFR Part 1194, Appendix A, E103.4, ICT is “Information technology and other equipment, systems, technologies, or processes, for which the principal function is the creation, manipulation, storage, display, receipt, or transmission of electronic data and information, as well as any associated content. Examples of ICT include but are not limited to: computers and peripheral equipment; information kiosks and transaction machines; telecommunications equipment; customer premises equipment; multifunction office machines; software; applications; Web sites; videos; and, electronic documents.”

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>.

Before final acceptance of any ICT item, including updates and replacements, if the contractor claims its products or services satisfy the applicable Revised 508 Standards specified in the statement of work, and the contracting officer’s representative, in coordination with the contracting officer, determines that any furnished ICT item is not in compliance with such requirements, the contracting officer will promptly inform the contractor in writing of the noncompliance. The contractor shall, at no cost to the agency, repair or replace the non-compliant products or services within the period specified by the contracting officer.

J. DATA RIGHTS

The Recipient must make available to the FHWA copies of all work developed in performance with this Agreement, including but not limited to software and data. Data rights under this agreement shall be in accordance with 2 CFR 200.315, Intangible property.

Funded researchers must comply with the U.S. DOT Public Access Plan (<https://doi.org/10.21949/1520559>) of research outputs acquired or generated during the course of the project. Research outputs are defined for the purpose of this contract – and as consistent with Federal laws (including FAR 52.227-14) and the DOT Public Access Plan (<https://doi.org/10.21949/1520559>) – as the recorded factual material commonly accepted in the scientific community as necessary to validate research findings, as may be textually represented in a publication or stored in a digital machine-readable format for further computational analysis. This term includes, but is not limited to, publications, research data, source code, and computer software documentation. This definition includes at a minimum the data required to validate research findings. It does include the refined and/or compiled data on which final research findings and conclusions are based.

K. DESIGNATION AS RESEARCH OR NON-RESEARCH AGREEMENT

This agreement is designated as: RESEARCH

L. ORDER OF PRECEDENCE

The Recipient's technical and budget applications are accepted, approved, and incorporated herein as Attachments A and B. In the event of any conflict between this agreement document and the Recipient's proposal and/or application, this Agreement document shall prevail.

M. AGREEMENT PERFORMANCE REQUIREMENTS SUMMARY

Attached Agreement Performance Requirements Summary documents the performance requirements of this Agreement and the standard against which the Recipient's performance will be measured.

N. CIVIL RIGHTS AND TITLE VI

As a condition of a grant award, grant recipients should demonstrate that the recipient has a plan for compliance with civil rights obligations and nondiscrimination laws, including Title VI of the Civil Rights Act of 1964 and implementing regulations (49 CFR Part 21), the Americans with Disabilities Act of 1990 (ADA), and Section 504 of the Rehabilitation Act, all other civil rights requirements, and accompanying regulations. FHWA's Office of Civil Rights may work with awarded grant recipients to ensure full compliance.

O. DISPUTES

The parties to this Agreement will communicate with one another in good faith and in a timely and cooperative manner when raising issues under this provision. Any dispute, which for the purposes of this provision includes any disagreement or claim, between the FHWA and the Recipient concerning questions of fact or law arising from or in connection with this Agreement and whether or not involving alleged breach of this Agreement, may be raised only under this Disputes provision.

Whenever a dispute arises, the parties will attempt to resolve the issues involved by discussion and mutual agreement as soon as practical. In no event will a dispute which arose more than three months prior to the notification made under the following paragraph of this provision constitute the basis for relief under this article unless FHWA waives this requirement.

Failing resolution by mutual agreement, the aggrieved party will document the dispute by notifying the other party in writing of the relevant facts, identify unresolved issues and specify the clarification or remedy sought. Within five working days after providing written notice to the other party, the aggrieved party may, in writing, request a decision from one level above the AO. The AO will conduct a review of the matters in dispute and render a decision in writing within thirty calendar days of receipt of such written request. Any decision of the AO is final and binding unless a party will, within thirty calendar days, request further review as provided below.

Upon written request to the FHWA Director, Office of Acquisition and Grants Management or designee, made within thirty calendar days after the AO's written decision or upon unavailability of a decision within the stated time frame under the preceding paragraph, the dispute will be further reviewed. This review will be conducted by the Director, Office of Acquisition and Grants Management. Following the review, the Director, Office of Acquisition and Grants Management, will resolve the issues and notify the parties in writing. Such resolution is not subject to further administrative review and to the extent permitted by law, will be final and binding. Nothing in this Agreement is intended to prevent the parties from pursuing disputes in a United States Federal Court of competent jurisdiction.

P. CLOSEOUT OF AGREEMENT FILE

The Government will initiate the administrative closeout of the cooperative agreement after receiving evidence that all technical work and administrative requirements have been completed. The Recipient shall furnish all required documents in support of the closeout of the cooperative agreement within the timeframes requested by the Government. The Government anticipates the timeframe to complete administrative closeout of the cooperative agreement will not exceed six (6) months.

3. REPORTING

A. QUARTERLY PROGRESS REPORT

The Recipient must submit an electronic copy of the SF-425, Federal Financial Report, and SF-425A, Federal Financial Report Attachment (if applicable). The forms must be submitted to the AOR and the Agreement Specialist on or before the 30th of the month following the calendar quarter being reported. Final forms are due 90 days after the end of the Agreement period of performance.

These forms may be found by searching using the form numbers at:

<https://www.gsa.gov/forms-library/federal-financial-report>

Calendar quarters are defined as:	Reports due on or before:
1st: January — March	April 30th
2nd: April — June	July 30th
3rd: July — September	October 30th
4th: October — December	January 30th

The quarterly progress report must include the required certification pursuant to 2 CFR 200.415.

In addition to the financial report, the Recipient must provide a quarterly progress report with following required attached information:

- a. Work performed for the current quarter;
- b. Work planned for the upcoming quarter;
- c. Description of any problem encountered or anticipated that will affect the completion of the work within the time and fiscal constraints as set forth in the Agreement, together with recommended solutions to such problems; or a statement that no problems were encountered;
- d. A tabulation, clearly delineated by Federal share, cost share and total, of the current and cumulative costs expended by cost element (labor, travel, indirect costs, sub-recipient/subcontractor, etc.) by quarter versus budgeted costs;
- e. Work performed in support of the FHWA and DOT Strategic Goals; and
- f. Budget revisions.

B. ANNUAL BUDGET REVIEW AND PROGRAM PLAN

The Recipient must submit an electronic copy and one hard copy of the Annual Budget Review and Program Plan to the AOR and one electronic copy and one hard copy to the Agreement Specialist 60 days prior to the anniversary date of this Agreement. The Annual Budget Review and Program Plan must include the required certification pursuant to 2 CFR

200.415. The Annual Budget Review and Program Plan must provide a detailed schedule of activities, estimate of specific performance objectives, include forecasted expenditures, and schedule of milestones for the upcoming year. If there are no proposed deviations from the Approved Project Budget, the Annual Budget Review must contain a statement stating such. The Recipient must meet via teleconference or web conference with the FHWA to discuss the Annual Budget Review and Program Plan. Work proposed under the Annual Budget Review and Program Plan must not commence until AO's written approval is received.

SECTION G – FEDERAL AWARDING AGENCY CONTACTS

Address any questions to:

Angela Jones, Agreement Specialist
Federal Highway Administration
Office of Acquisition and Grants Management
Email: angela.jones@dot.gov
Phone: 202-266-4255

Secondary point of contact is:

Hector Santamaria, AO/Team Leader
Federal Highway Administration
Office of Acquisition and Grants Management
Email: hector.santamaria@dot.gov
Phone: 202-493-

<end of section>

SECTION H – OTHER INFORMATION

(Fill-in as applicable: This section may include any additional information that will assist a potential Applicant. For example, the section might:

- Indicate whether this is a new program or a one-time initiative.
- Mention related programs or other upcoming or ongoing Federal awarding agency funding opportunities for similar activities.
- Include current Internet addresses for Federal awarding agency Web sites that may be useful to an Applicant in understanding the program.
- Alert Applicants to the need to identify proprietary information and inform them about the way the Federal awarding agency will handle it.)