

***Federal Grant Opportunity
Request for Applications (RFA)
Executive Summary***

Federal Agency Name:	U.S. Department of Transportation Federal Highway Administration Office of Acquisition and Grants Management (HCFA-32) 1200 New Jersey Avenue SE Mail Drop: E65-101 Washington DC 20590 Attn: Freida Byrd, HCFA-32
Funding Opportunity Title:	“Connected Vehicle – Next Stage Certification Environment”
Announcement Type:	This is the initial announcement of this funding opportunity.
Funding Opportunity Number:	RFA Number: DTFH6114RA00014
Catalog of Federal Domestic Assistance (CFDA) Number:	20.200
Dates:	RFA Issue Date is June 18, 2014 RFA Questions End Date/Time is July 2, 2014 by 2:00PM Eastern Time (ET) Application Due Date/Time is July 18, 2014 by 2:00PM Eastern Time (ET)
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SECTION I - FUNDING OPPORTUNITY DESCRIPTION

A. STATEMENT OF PURPOSE

The Federal Highway Administration (FHWA) hereby requests applications for assistance to result in the award of a new Cooperative Agreement to establish a future certification environment for connected vehicle devices and applications.

B. LEGISLATIVE AUTHORITY

The authority to enter into a Cooperative Agreement for this effort is found under Section 502(b)(3) of USC 23, Surface transportation research, development, and technology, which states the following:

“(3) Cooperation, grants, and contracts. - The Secretary may carry out research, development, and technology transfer activities related to transportation - (A) independently; (B) in cooperation with other Federal departments, agencies, and instrumentalities and Federal laboratories; or (C) by making grants to, or entering into contracts and Cooperative Agreements with one or more of the following: the National Academy of Sciences, the American Association of State Highway and Transportation Officials, any Federal laboratory, Federal agency, State agency, authority, association, institution, for-profit or nonprofit corporation, organization, foreign country, or any other person.”

The Intelligent Transportation Systems (ITS) program is authorized under Section 516 of USC 23, Research and development which cites the following:

(a) In General. - The Secretary shall carry out a comprehensive program of intelligent transportation system research and development, and operational tests of intelligent vehicles, intelligent infrastructure systems, and other similar activities that are necessary to carry out this chapter.

(b) Priority Areas. - Under the program, the Secretary shall give higher priority to funding projects that –

(1) enhance mobility and productivity through improved traffic management, incident management, transit management, freight management, road weather management, toll collection, traveler information, or highway operations systems and remote sensing products;

(2) use interdisciplinary approaches to develop traffic management strategies and tools to address multiple impacts of congestion concurrently;

(3) address traffic management, incident management, transit management, toll collection traveler information, or highway operations systems;

(4) incorporate research on the potential impact of environmental, weather, and natural conditions on intelligent transportation systems, including the effects of cold climates;

- (5) enhance intermodal use of intelligent transportation systems for diverse groups, including for emergency and health-related services;
- (6) enhance safety through improved crash avoidance and protection, crash and other notification, commercial motor vehicle operations, and infrastructure-based or cooperative safety systems; or
- (7) facilitate the integration of intelligent infrastructure, vehicle, and control technologies.

(c) Federal Share. - The Federal share payable on account of any project or activity carried out under subsection (a) shall not exceed 80 percent.

Section 51001 (a)(4) of Moving Ahead for Progress in the 21st Century Act (MAP-21), Public Law 112-141; Statute 864, authorizes appropriations as follows: “Intelligent transportation systems program.--To carry out sections 512 through 518 of title 23, United States Code, \$100,000,000 for each of fiscal years 2013 and 2014.”

C. BACKGROUND

The United States Department of Transportation (USDOT)’s Connected Vehicle Program aims to improve safety, enhance mobility, and reduce the environmental footprint of our transportation systems through the use of connected vehicle technology.

Connected transportation systems use connected vehicle technology to link vehicles and mobile devices to each other, to transportation infrastructure, and to the larger communication infrastructure. The USDOT is engaged in assessing applications that realize the full potential of connected vehicles, travelers and infrastructure to enhance current operational practices and transform future surface transportation systems. To realize this potential, connected vehicle equipment and applications must meet minimum performance requirements, conform to common technical standards, and interoperate with one another. Certification testing provides a formal means of verifying that a device, application or service meets these requirements.

D. OBJECTIVE

The objectives of this Cooperative Agreement are to:

- Develop and document policies, plans, procedures, and tools that will be needed to conduct qualification and certification testing for various devices and applications used in large-scale deployment trials to be conducted over the next few years,
- Conduct tests on various devices and the applications (testing will include radio and message level interface testing, as well as some system performance testing (e.g., radio range and positioning accuracy), and
- Identify an approach for a Connected Vehicle Certification Testing program to become self-sustaining and, by providing support for development and early testing, contribute to establishing such a program.

USDOT is proposing a four (4) layer approach to connected vehicle devices and applications certification. This approach consists of certifying a basic device to meet environmental and communications protocol requirements. A basic device consists of hardware, software and radio components and is certified to meet the environmental and communications requirements (see Figure 1). Application certification is separated into two parts; one part for communications interface certification (layer 3), and another for overall functional certification (layer 4) of the application. This separation is necessary as interface semantics (message payload) certification is applicable to one or more application. The four (4) layers of certification are:

1. Environmental Abilities,
2. Communication Protocol Abilities,
3. Interface Abilities (both the syntax and contents of the message payload transmitted over the communications medium), and
4. Overall Application Abilities.

4 - Overall Application Abilities		Applications
3 - Interface Abilities		
1 - Environmental Abilities	2 - Communication	Basic Device

Figure 1 - Four Layer Certification Approach

Verifying the “abilities” for each layer consists of verifying that the requirements are fulfilled for that layer.

A basic device must be certified at layers one (1) Environmental Abilities, and two (2) – Communication Protocol Abilities. An application that resides on a basic device must be certified for its functional and communications capabilities requiring all four layers. This structure allows for multiple applications to be hosted on one device and use lower layer certifications (layers 1, 2, and 3). Compliance with the various layers is required to obtain the necessary security certificates used to communicate between devices. A Security Credential Management System (SCMS) is required to control the issuance of security certificates using the rules described below. USDOT will make the SCMS issued security certificates available to the Recipient.

- 1) **Environmental Abilities:** This layer certifies that a device is suitable for the environment in which it will be used (temperature, vibration, weather, etc.). Environmental suitability certification is necessary because the device’s contribution to the application or system is lost if the basic device fails prematurely. As listed below, various industry segments will likely have specific requirements in this area. Self-certification is potentially appropriate at this level, testing will most likely be conducted by device or Tier 1 suppliers, and it is believed that responsibility to customers will enforce conformance.
 - a) Automotive component Tier 1 suppliers are familiar with environmental certification based on specifications from their Original Equipment Manufacturers (OEM) customers.
 - b) Device specifications will inform roadside device manufacturers on appropriate requirements for their products. It is likely that public transportation agencies will accept self-certification once the process of self-certification has been proven to be reliable by

some entity (e.g. in a cooperative association of local transportation agencies or by the Federal Government).

- c) Aftermarket device makers will need to meet environmental requirements suitable for the cost/grade of their products.

Conformance with Layer 1 is necessary, but not sufficient to obtain security credentials. A SCMS would need to maintain a list of conforming devices by make and model as defined by government regulations (i.e., FCC, NHTSA, FMCSA...) or by industry standards.

- 2) **Communication Protocol Abilities:** This layer certifies that the basic device conforms to the communications protocol standards that govern transfer of message payloads (e.g. radio service interoperability for Dedicated Short Range Communications, message payload format consistency, header contents). The basic device must meet a specific configuration of the specified standards to ensure interoperability. USDOT and system contributors will need to work collectively to arrive at a collective understanding of the specific requirements for this level. The ability to perform certifications – either self-certifications or third-party lab certifications – will need to be established by the system contributors. Federal Communications Commission (FCC) license requirements and National Highway Traffic Safety Administration (NHTSA) application message definition requirements will make conformance necessary.

- a) Radio service operation testing will likely be done by specialized labs.
- b) Message payload construction could be done by specialized labs or specific users with the necessary expertise.

Conformance at Layer 2 is necessary, but not sufficient for device models (combination of hardware and operating system and communication protocol stack software) to obtain security credentials. A SCMS would need to maintain a list of conforming devices by make and model as defined by government regulations (FCC, NHTSA, FMCSA . . .) or industry standards.

- 3) **Interface Abilities:** This layer is applicable to one or more applications and certifies that the message payload includes the appropriate payload content and security content, and that it is formatted properly. In short, the certification verifies that both the syntax and contents being shared across the interface is useful to an application. This layer defines operating conditions and criteria for meeting accuracy and performance requirements. Product development processes and industry or governmental regulations could enforce conformance.

- a) OEMs may conduct this level of certification with initial samples from device makers.
- b) Third party testing and certification organizations could also certify at this layer.

Conformance at Layer 3 would be needed for a specific service or application software component to get access to security credentials. A SCMS would need to maintain a list of approved service and application components by author and revision level as defined by government regulations (FCC, NHTSA, FMCSA . . .) or by industry standards.

- 4) **Overall Application Abilities:** This layer is the most difficult to certify. In order to ensure that all specifications are verified, an entity must bring multiple components together to see if the whole system works. One example of this certification layer can be seen in Crash Avoidance Metrics Partnership (CAMP) application developers' role to integrate vehicles

and infrastructure communications in the Safety Pilot Model Deployment. Similar overall interest groups will need to do this for all applications.

- a) Industry associations may develop and enforce this layer of certification prior to introducing a new application and at regular intervals thereafter based on modifications to an application.
- b) Not all applications will require certification at this layer, but which ones may be excluded has not yet been determined.
- c) If connected vehicle technology and specific safety applications are mandated by NHTSA, NHTSA could specify objective test procedures with specific pass/fail criteria in the form of Federal Motor Vehicle Safety Standards (FMVSS) certification testing.

The results of Layer 4 testing would confirm the results used in Layers 1, 2, 3 and verify the system level functions. A SCMS would need to maintain a list of the standards by name and revision level used at each certifying event. Those standards would have to be referenced by device makers (Layers 1 and 2) and application software developers (Layers 3 and 4) who want their products listed as suitable for receiving security credentials.

Phased Approach

- Phase 1: Agreement on the extent of the project
 - Only certain parts of the full, layered certification process described in the background section are practical at this time. The Recipient and other significant outside stakeholder parties shall agree on the extent of the certification activities available at this time. The Recipient must be capable of establishing certification services for Layers 2 and 3 of the certification scheme, and address how they will provide Layer 1 certification, or work with other organizations that can provide Layer 1 certification. Applications should be limited to providing Layer 2 and 3 support but include the extent to which a Recipient would be able to implement all others layers of certification.
- Phase 2: Agreement on device specifications
 - Equipment, application support specifications, and application specifications will have evolved. The Recipient in coordination with USDOT shall work with significant outside stakeholders to collectively agree on the version of these specifications that will be used during any testing done under this agreement.
- Phase 3: Definition of the test procedures and equipment requirements
 - Common practices and key tools need to be held constant so the Recipient will be able to deliver fundamentally the same results. The Recipient and significant outside stakeholders shall collectively define test procedures and tool requirements. The Government will have the right to use the test procedures and equipment requirements for Federal government purposes.
- Phase 4: Individual test facility construction
 - The Recipient shall then implement the test procedures with the tools defined in Phase 3 and prepare to be available for device and application testing. The Recipient shall participate in the USDOT sponsored PlugFests as part of this phase. The test tools and test suite software will remain the intellectual property of the Recipient. However, USDOT will have the right to use the test suites for Federal government purposes.
- Phase 5: Individual test facility operation

- o The Recipient shall operate their facilities as needed by device makers and application developers. The Recipient may charge fees for whatever services they perform. Partial Federal support will continue to be provided during this phase. USDOT sponsored and self-sustaining certification testing activities will occur in this phase.
- Phase 6: Update business plans, test procedures and tool requirements

The Recipient shall review the operation of the certification processes over the course of the agreement and make recommendations to improvements to test procedures and tool requirements. The Recipient will make updates to their business plans based on their experiences

E. STATEMENT OF WORK

The Recipient shall establish a future certification environment for devices and applications that leverage wireless communications, including all appropriate systems engineering, systems integration, testing, and technical support required.

This Statement of Work (SOW) identifies the following tasks:

- Task 1: Project Management – ongoing throughout all 6 phases
- Task 2: Agree on Device Specifications – occurs during phases 2 and 5
- Task 3: Update Test Procedures – occurs during phase 3 and 5
- Task 4: Update Test Suites – occurs during phase 4 and 5
- Task 5: Support PlugFests – occurs according to the PlugFest schedule and is part of Phase 4
- Task 6: Conduct USDOT Sponsored Certification Testing - occurs during Phase 5
- Task 7: Conduct Self-Sustained Certification Testing - occurs during Phase 6
- Task 8: Certification Organization Activities - ongoing throughout all 6 phases

In order to accomplish the objectives of this SOW the Recipient shall, as a minimum, satisfactorily perform the following tasks:

Task 1 – Project Management

The purpose of this task is for the Recipient to effectively manage all activities, including communication and reporting to the Government Task Manager (GTM) and Agreement Officer's Technical Representative (AOTR).

In this activity, the Recipient shall attend a project kick-off meeting in the Washington, DC area within five weeks of award. The Recipient shall present the proposed approach in a draft Project Management Plan (PMP) and project schedule at the kick-off meeting. The draft PMP and project schedule shall be based on the technical work defined in this document and delivered two weeks prior to the kick-off meeting.

Based on discussions at the kick-off meeting, the Recipient shall develop a final Project Management Plan (PMP) that guides the execution of Work Task Activities identified in this SOW two weeks after receipt of USDOT's comments on the Draft PMP. The Recipient shall follow PMI's (Project Management Institute) Project Management Body of Knowledge (PMBOK) standard ANSI/PMI 99-001-2008. The PMP shall include plans for: Scope

Management, Cost Management, Quality Management, Human Resources Management, Communications Management, and Risk Management.

A sample template for a PMP is included later in this document. The Recipient may use a different template for their PMP, if their organization has a standard that it uses for such plans. However, a copy of the format and proposed content for the PMP, if different from the template in the Appendix, shall accompany the application.

The Recipient shall develop a Risk Management Log that documents risks, and their characteristics that might affect the project. Types of risks that must be considered include risks potentially impacting: project schedule, scope, and costs. A Risk Management Log shall be maintained on an on-going basis during the entire period of performance to track risks, mitigation plans and status. Each risk shall have a unique number, probability of occurrence and impact of occurrence rating.

The Recipient shall prepare a detailed project schedule, in Microsoft Project 2010 format, that lists all planned tasks and milestones for the project. The USDOT expects one integrated project schedule that shall include all activities, deliverables, and milestones, including those related to project management activities. All activities and milestones shall have their predecessors and successors clearly identified, to enable the calculation of a critical path for the project. The detailed project schedule shall reflect a Work Breakdown Structure (WBS) comprised of at least three levels.

Funding for Phase 2 will be approved, once the final PMP and project schedule are approved by USDOT. Funding for phases 3-6 is dependent upon task progress associated with each previous phase. The association of phases to tasks is provided in the task summary provided in this section. The association between task deliverables and phases is provided in the Deliverable Schedule.

The Recipient shall also attend team meetings or teleconferences as requested by the AOTR and GTM. The Recipient shall be prepared to report on progress, schedule, scope issues, budget, and results of tasks at team meetings. The frequency of these meetings may vary between weekly and monthly at the discretion of the GTM.

The Recipient shall provide quarterly progress reports to the AOTR and GTM. These progress reports shall be prepared in accordance with the requirements of the Cooperative Agreement. These reports shall cover the work progress of all tasks described in this scope of work. In addition, the reports shall include the following items:

- A one (1) page summary of the overall progress
 - Total budget and remaining budget
 - Major accomplishments
 - Near-term milestones
 - Variances from the current work plan, including planned corrective actions
- A one (1) page summary of the Recipient's view of the cost, schedule and technical performance status of the overall task. The Recipient shall use Green (G), Yellow (Y), and Red (R) indicators shown below to indicate the status.
 - COST: G (green) - Project within budget; Y (yellow) - Project Costs >1% but < 10% Over Budget; and R (red) - Project Costs > 10% Over Budget. The cost

indicator shall include the total dollar value expended by all participants in the project even though all expenses have not been invoiced.

- SCHEDULE: G (green) - Goal Achievement On Time; Y (yellow) - Goal Achievement >1% but < 10% Late; and R (red) - Goal Achievement > 10% Behind Schedule.
- PERFORMANCE: G (green) - Goals/Major Objectives Will Be Achieved; Y (yellow) - Goals/Several Major Objectives in Jeopardy; and R (red) - Goals Will Not Be Achieved.
- TECHNICAL: G (green) – Project technical issues and risks are within scope and not impacting cost or schedule; Y (Yellow) – Project technical issues/risks are impacting the cost or schedule>1% but < 10%; R (red) – Project technical issues/risks will impact the cost or schedule by 10% or >
- Summary of each active 2nd-level WBS element:
 - Total budget and remaining budget
 - Expenditure for the month in focus
 - Estimated % work complete
 - Brief list of activities/deliverables completed that month
 - Brief list of activities anticipated in the next month
 - Brief list of outstanding issues/comments requiring USDOT attention
 - Status of each deliverable—including the outline, the draft (or interim) version, and the final version

The Recipient shall attend a project closeout meeting in the Washington, DC area during the last week of the project. The Recipient shall present a summary of work performed under each task, the status of each deliverable, and identify pending or incomplete deliverables, and the total funds expended.

The following documents are included at the end of this document to assist the Recipient in understanding project management-related requirements for this task:

- ITS-Funded Project Control Compliance
- Risk Log Example
- Section 508 Requirements
- Sample Template for Project Management Plan (PMP)

Task 1. Deliverables

- Briefing Materials, Kick-Off Meeting
- Draft PMP, Final PMP
- Draft Project Schedule [updates included in Monthly Progress Reports]
- Coordination Meeting Briefing Materials
- Quarterly Progress Reports
- Briefing Materials, Closeout Meeting

Task 2 – Agree on Device Specifications

The purpose of this task is for the Recipient to choose the device specifications. These device specifications will influence the product development, test procedure development, and test suite development for their respective testing activities indicated below.

Activities under this task shall include:

- Conduct an initial review all USDOT identified device specifications and provide written feedback to the USDOT on how to improve them and to remove ambiguities.
- Conduct a review of the results from early PlugFests and provide written feedback to USDOT on how to improve the device specifications and to remove ambiguities.
- Conduct a review of the results from later PlugFests and provide written feedback to USDOT on how to improve the device specifications and to remove ambiguities. The intent is to support the updates of the device specifications so as to influence USDOT Sponsored Testing.

Subtask 2.1 – Conduct Review and Provide Initial Feedback on USDOT Identified Device Specifications

The purpose of this subtask is to conduct a review of the existing device specifications and provide feedback to USDOT in order to remove ambiguities and to make these device specifications more supportive of a testing environment. Feedback for this subtask includes a review of the device specifications, and any feedback from USDOT sponsored PlugFests collected by the Recipient.

To support this subtask, the Recipient shall do the following:

- Review the existing device specifications and provide feedback to USDOT, and
- Provide one feedback document for each device type (as needed).

Subtask 2.2 – Provide Feedback on Device Specifications Based on Results of USDOT Supported Testing

The purpose of this subtask is to provide feedback to USDOT on the device specifications based on feedback from the USDOT supported certification testing conducted as part of Phase 5. This will be the last updates to the device specifications in order to remove ambiguities and to make these device specifications supportive of the certification testing environment.

To support this subtask, the Recipient shall do the following:

- Prepare comments, based on the results of the USDOT Supported Certification Testing, for use by USDOT to update said device specifications, and
- Provide feedback on each type of device (as needed).

Task 2 Deliverables

- Feedback report on each device specification (this may be multiple reports dependent upon the schedule of the PlugFests).
- USDOT Sponsored Certification Testing Feedback on Device Specifications (this may be one, or up to three, reports depending on the type of devices tested and requiring feedback)

Task 3 – Update Test Procedure Specifications

The purpose of this task is for the Recipient to refine test procedures for based on device specification updates. These revised test procedures will be used in the USDOT Supported Certification testing.

Activities under this task shall include:

Subtask 3.1 – Review and Refine Certification Test Procedures

USDOT recognizes that with the updating of device specifications, test procedures may also need to be updated. The purpose of this task is to update the Certification Test Procedures to verify compliance to the updated device specifications.

To support this subtask, the Recipient shall do the following:

- Conduct an analysis on the different device certification test procedures and determine what the impact is on said test procedures based on changes to the device specifications that occurred in task 2.1, and
- Update device certification test procedures (as necessary) for each device type.

These updated certification test procedures shall be used in the USDOT Supported Certification Testing.

Subtask 3.2 – Update Test Procedures Based on Results of USDOT Supported Testing

The purpose of this subtask is to support the updating of the Certification Test Procedures based on feedback obtained from the results of the USDOT Supported Testing effort conducted as part of Phase 5.

To support this subtask, the Recipient shall do the following:

- Update the test procedures based on changes to the device specifications that occurred in task 2.2 and from the results from the USDOT Supported Certification Testing. One certification test procedure will be modified (if necessary) for each device type.

These updated certification test procedures shall be used in the Self-Sustainable Certification Testing.

Task 3 Deliverables

- Updated Device Certification Test Procedures (one for each type of device as needed)
- Updated Device Certification Test Procedures based on USDOT Supported Certification Testing (one for each type of device as needed)

Task 4 – Update Test Suites

The purpose of this task is for the Recipient to update their test suites based on feedback obtained from the testing activities. Test suites are equipment and software combinations used to manually and automatically conduct tests on devices or systems under test. USDOT may or may not choose to fund this task. If funded, USDOT may choose to fund partially or completely. There will not be USDOT funding provided if test suite updates are not necessary for more than one round of testing activities. The potential candidate is to propose and justify the number of updates to the test suite they feel are necessary to support the objective of preparing the Certification Test Suite ready for Self-Sustained Certification Testing.

Activities under this task shall include:

Subtask 4.1 – Update Test Suites Based on Device Specification Updates from Task 2.1 and Test Procedure Updates in Task 3.1

The purpose of this subtask is to help prepare the Certification Test Suite for the USDOT Sponsored Certification Testing activity.

To support this subtask, the Recipient shall do the following:

- Update the certification test suites based on the updated device specifications from subtask 2.1 and the updated certification test procedures from subtask 3.1.
- Hold a walkthrough to verify that the updated test suite meets the requirements from the updated device specifications from subtask 2.1 and the updated certification test procedures from subtask 3.1. The walkthrough shall include participants from USDOT and their designated agents. The Walkthrough shall be organized using Section 7 in the IEEE Std 1028-2008 as a guide.

These updated test suites shall be used to by the Recipient in the USDOT Supported Certification Testing.

Subtask 4.2 – Update Test Suites Based on Results From USDOT Supported Testing

The purpose of this subtask is to help prepare the Certification Test Suite for the Self-Sustained Certification Testing activity.

To support this subtask, the Recipient shall do the following:

- Update the certification test suites based on the USDOT Supported Certification Testing conducted as part of Phase 5.
- Hold a walkthrough to verify that the updated test suite meets the requirements from the updated device specifications from subtask 2.2 and the updated certification test procedures from subtask 3.2. The walkthrough shall include participants from USDOT and their designated agents. The Walkthrough shall be organized using Section 7 in the IEEE Std 1028-2008 as a guide.

These updated test suites shall be used to by the Recipient in the Self-Sustained Certification Testing.

Task 4 Deliverables

- Walkthrough materials necessary to verify the updated Certification Test Suites are compliant to updated device specifications from subtask 2.1 and the updated certification test procedures from subtask 3.1
- Walkthrough materials necessary to verify the updated Certification Test Suites are compliant to updated device specifications from subtask 2.2 and the updated certification test procedures from subtask 3.2

Task 5 – Support PlugFests

The purpose of this task is for the Recipient to attend the series of PlugFests sponsored by USDOT. PlugFests are events during which devices are tested for interoperability with emerging standards. They provide essential feedback to standards organizations as well as to the developer community whose products are tested at the event. The intent here is to have the Recipient

provide spontaneous technical services to help educate the participants on the device specifications and the testing process and then participate in interoperability tests that are representative of the conformance tests. Results from the tests will be provided to the participants but are limited to the actual results collected. The Recipient participating in the tests will not provide detailed analysis on the results.

Activities under this task shall include:

Subtask 5.1 – Preparation of Training Materials for PlugFests

The purpose of this subtask is to review and suggest updates to PlugFest training materials for use in the PlugFests. It is anticipated that at least two types of training will occur that requires training material to be prepared. These are Device Specification Training and Testing Process Training.

To support the preparation of the PlugFest training material, the Recipient shall do the following:

- Assist in Preparing and/or modifying Device Specification and Testing Process training packages (that covers all types devices bring supported at the USDOT sponsored PlugFests) by reviewing and providing comments on each training package.

Subtask 5.2 – Technical Support for USDOT Sponsored PlugFests

The purpose of this subtask is to provide spontaneous technical support to device vendors at USDOT sponsored PlugFests. The purpose of the PlugFests is to provide an environment in which vendors can verify how their equipment works in a multi-vendor environment. The PlugFests will be used to help vendors verify conformance to those standards used in the USDOT sponsored test bed(s), to verify devices meet interoperability requirements, and to help prepare devices for Certification Testing. As such, the PlugFests will not replace Certification Testing nor will PlugFest have the same level of rigor, but Certification test suites may be used, at the PlugFests, by the vendor to help prepare them for Certification Testing.

To support the USDOT PlugFests, the Recipient shall do the following:

- Support up to 2 USDOT sponsored PlugFests with the necessary staff physically present,
- Assist in training PlugFest participants on how to use and interpret the device specifications,
- Assist in training PlugFest participants how to collect and interpret the results of PlugFest tests when using Certification Test Suites, and
- Run Certification Test Suites as necessary to support the PlugFest.

The Recipient shall not provide anything other than runtime assessments, done with the device vendor(s) at the PlugFests. USDOT expects potential candidates to specify in their application the number of staff needed, the equipment needed, and they types of services provided in order to support the above objectives.

Task 5 Deliverables

- Initial Device Specification Training Package Reviews for Vehicle Awareness Devices, Aftermarket Safety Devices, and Roadside Safety Units
- Contributions to Initial Testing Process Training Package(s)

- Updates to Device Specification Training Packages and Testing Process Training Package(s) as needed

Task 6 – Conduct USDOT Supported Certification Testing

The purpose of this task is for the Recipient to refine their certification testing process and their certification granting process. USDOT will fund up to three (3) certification testing sessions supporting USDOT projects. USDOT will leave it up to the Recipient to determine if they will charge device or system manufacturers for conducting these tests. Potential organizations must indicate in their application if they plan to charge for this testing as part of their business plan.

Activities under this task will include:

Subtask 6.1 – Organizing, Outreach, and Planning

The purpose of this subtask is to plan and prepare for the USDOT Supported Certification Testing activity. USDOT anticipates that participants will require training on what the devices must comply with and on what will happen during certification testing. In addition, a test readiness review will occur to determine if the Recipient is prepared to start the certification testing. USDOT must agree that the preparations are complete and correct prior to starting the testing activities.

To support the USDOT Supported Certification Testing, the Recipient shall do the following:

- Develop device specification training package for all device types supported in the USDOT Supported Certification Testing (use of existing training packages, from the PlugFests, should be considered when estimating the effort to prepare these training packages),
- Develop a testing process training package describing what will happen, what products to expect from the testing activity, and how to interpret results, and
- Prepare for and participate in a test readiness review with USDOT and once approved, the Recipient will be funded to begin USDOT Supported Certification Testing.

Subtask 6.2 – USDOT Supported Testing

The purpose of this subtask is to conduct USDOT Supported Certification Testing. All business and technical aspects related to certification testing and issuing a certificate need to be executed in this section. This section also includes documenting the process and the results of the testing in order to help improve the certification testing process and improve compliance testing. The testing activity includes providing training, the actual certification testing, and the process of issuing a certificate (if a device met the requirements of the certification body).

In support of this subtask the Recipient shall:

- Prior to the actual testing, training specific to the device submitted for testing will be provided (USDOT expects a potential candidate to describe, in their application, how and when training will occur to meet this intent),
- Prior to the actual testing, training on the testing process will be provided (USDOT expects a potential candidate to describe, in their application, how and when training will occur to meet this intent),
- Conduct certification testing on 1 device as a minimum and not to exceed 3 device tests (USDOT expects the potential candidate to describe in their application how to structure

these tests, to propose a minimum and maximum range of tests, and how to protect the intellectual property rights of the device owner while still providing detailed analysis to USDOT), and

- Prepare and provide a detailed results report and analysis of results for use by the device owner and the certification body (USDOT expects the potential candidate to identify, in their application, what types of information and analysis is necessary to support the needs of the device owner and the certifying body).

Subtask 6.3 – Update Training Packages Based on USDOT Supported Testing Results

The purpose of this subtask is to update the device and testing training packages based on the results of the USDOT Supported Certification Testing. These packages are being updated in preparation of the Self-Sustained Certification Testing.

In support of this subtask the Recipient shall:

- Update the device specification training packages as necessary based on the results of the USDOT Supported Certification Testing, and
- Update the testing process training package as necessary based on the results of the USDOT Supported Certification Testing.

Subtask 6.4 – Develop Report on USDOT Supported Testing

The purpose of this subtask is to prepare a test report for USDOT on the USDOT Supported Certification Testing results. USDOT expects the potential candidate to propose what is needed in the report in order to support updating device specifications, test procedures, and test suites in preparation for Self-Sustained Certification Testing as part of their application.

In support of this subtask the Recipient shall:

- Develop and deliver a draft USDOT Supported Certification Testing Report, and
- Update and deliver a final USDOT Supported Certification Testing Report, based on feedback from USDOT on the draft USDOT Supported Certification Testing Report.

Task 6 Deliverables

- Initial Device Specification Training Packages (may be one or more packages depending on the number of device types to be tested in the USDOT Supported Certification Testing activity)
- Initial Testing Process Training Package
- Updates to Device Specification Training Packages as needed
- Updates to Testing Process Training Package as needed
- Certification Testing Outreach Plan
- Device or System Certification Test Report (for each device or system tested)
- Draft USDOT Supported Certification Testing Report
- Final USDOT Supported Certification Testing Report

Task 7 – Conduct Self-Sustained Certification Testing

The purpose of this task is to have the Recipient refine its certification testing process and their certification granting process and prove they can do so in a self-sufficient manner. There will not be any USDOT funding used to support the self-sustaining certification testing sessions. This task may also include updates to the test suites as necessary. Only the last sub-task will be funded by USDOT.

Activities under this task shall include:

Subtask 7.1 – Self-Sustained Certification Testing

The purpose of this subtask is to conduct the Self-Sustained Certification Testing. All business and technical aspects related to certification testing and issuing a certificate need to be executed in this section. The testing activity includes providing training, the actual certification testing, and the process of issuing a certificate (if a device met the requirements of the certification body).

In support of this subtask the Recipient shall:

- Prior to the actual testing, training specific to the device submitted for testing will be provided (USDOT expects a potential candidate to describe, in their application, how and when training will occur to meet this intent),
- Prior to the actual testing, training on the testing process will be provided (USDOT expects a potential candidate to describe, in their application, how and when training will occur to meet this intent),
- Conduct certification testing on device tests (USDOT expects the potential candidate to describe in their application how to structure these tests, to propose a minimum and maximum range of tests, and how to protect the intellectual property rights of the device owner while still providing detailed analysis to USDOT), and
- Prepare and provide a detailed results report and analysis of results for use by the device owner and the certification body (USDOT expects the potential candidate to identify, in their application, what types of information and analysis is necessary to support the needs of the device owner and the certifying body).

Subtask 7.2 – Develop Report on Self-Sustained Certification Supported Testing

The purpose of this subtask is to prepare a test report for USDOT on the Self-Sustained Certification Testing results. USDOT expects the potential candidate to propose what is needed in the report in order to support updating device specifications, test procedures, and test suites in preparation for future improvements as part of their application.

In support of this subtask the Recipient shall:

- Develop and deliver a draft Self-Sustained Certification Testing Report, and
- Update and deliver a final Self-Sustained Certification Testing Report, based on feedback from USDOT on the draft Self-Sustained Certification Testing Report.

Task 7 Deliverables

- Device or System Certification Test Results and Analysis Report (for each device or system tested)
- Draft Self-Sustained Certification Testing Report

- Final Self-Sustained Certification Testing Report

Task 8 – Certification Organization Activities

The Recipient shall develop or refine the following under their own funding as part of the Next Stage Certification Testing project. Progress on these items will be provided to USDOT as well as specific deliverables. The intent of this effort is for USDOT to determine if the organization is progressing toward a self-sustaining operation and will be ready to become self-sustaining by the start of Phase 5 of the project (see figure 2). USDOT intends to fund the development of more than one organization in order to promote a competitive environment for this testing. The Recipient shall provide, to USDOT, a business plan that addresses all the issues identified below and any additional issues the Recipient determines are relevant. The potential candidate may propose a different organizational structure and certification process than what is implied below in their application. If proposing an alternative, the potential candidate must clearly describe, in their application, the organizational structure, how the certification process works and relates to tasks 1 through 7, and how it addresses the issues described below.

Activities under this task shall include:

Subtask 8.1 – Organization Governance

The intent of this subtask is for the Recipient to define and refine the form of governance the certifying organization will take to manage both the business and technical aspects of the certifying a device. Organizational governance must at least address the following issues/activities:

- Overall form of the organization;
- Form or structure and responsibilities of the governing board or body;
- How the legal, financial, and business aspects of the organization are to relate to each other;
- What rules will the organization governance portion need to establish to operate the organization and how the organization interfaces with stakeholders and the security certificate issuing entity; and
- How will the business become fully self-sustaining?

Subtask 8.2 – Technical Evaluation

The intent of this subtask is for the Recipient to define and organize how the technical aspects of the certification process will be managed. Some technical authority (or body) will need to address the following issues/activities:

- Who in the organization will be responsible for determining the technical aspects of the certification process (e.g. verify the test suites, participate in the development of associated standards, conduct configuration management activities, etc.);
- Who will provide evaluations and feedback on test procedures, approve test suites for use, and provide feedback on device specifications and standards that affect the business of this industry;
- Who and how will changes to the standards and device specifications be addressed in the test procedures and test suites;

- Who will develop technical requirements for testing (internal or third party) and certification;
- Who will give final technical approval on any organization that will do the testing (internal or third party); and
- Who will respond to questions and evaluations on test suites and test results (can be from USDOT, device manufacturers, device users, etc.)?

Subtask 8.3 – Certification Approval

The intent of this subtask is for the Recipient to define the technical aspects of the certification approval process. The certification process (and the certification body) shall address the following issues/activities:

- What is the certification approval process and how does it relate to the testing process;
- Will the certification testing and approval processes be done internally by a third party; Who will evaluate the results of the certification testing, decides what requirements are to be met, and grants certificates for devices passing their requirements;
- Who and how will the test and certification records be maintained; and
- How will certified devices be authorized to receive security certificates?

Subtask 8.4 – Updated Certification Business Plan

The intent of this subtask is for the Recipient to update the business plan submitted in the application based on lessons learned from the project so far. The updated business plan shall be provided to USDOT prior to the start of the USDOT Sponsored Certification Testing and must be part of the Pre-USDOT Supported Testing Test Suite Walkthrough package. The intent of this update is to provide a more recent plan on how the Recipient plans to become self-sustaining in this business.

Task 8 Deliverables

- Self-Sustaining Certification Business Plan (provided to USDOT prior to start of USDOT Supported Certification Testing)

F. REPORTS AND DELIVERABLES

The offeror's technical application shall include the proposed schedule with both dates for those deliverables whose dates are marked "TBD" below, as well as the proposed dates for each phase of the program, as described in the Proposed Phase Approach and Figure 2 of this SOW. All deliverables must be completed within the 24 month Period of Performance.

TASK NAME AND DELIVERABLE	DUE DATE
Task 1 – Project Management and Systems Engineering Management	
Briefing Materials, Kick-off Meeting	5 weeks after contract award

TASK NAME AND DELIVERABLE	DUE DATE
Draft PMP, Final PMP	Draft: 3 weeks from contract award; final: 2 weeks after receipt of USDOT comments
Draft Project Schedule	3 weeks from contract award
Monthly Progress Reports, including updates to Project Schedule	2 weeks after end of month
Briefing Materials, Closeout Meeting	2 weeks prior to the end of the POP
Task 2 – Agree on Device Specifications	
Feedback reports on each device specification, 1-2 reports per device type, depending upon PlugFest scheduling	TBD, during Phase 2
Feedback reports on each device specification based on results of certification testing conducted as part of phase 5	TBD, During Phase 5
Task 3 - Update Test Procedure Specifications	
Updated Device Certification Test Procedures (one per device type)	TBD, during Phase 3
Updated Device Certification Test Procedures based on results of certification testing conducted as part of phase 5	TBD, during Phase 5
Task 4 - Update Test Suites	
Walkthrough material to verify the updated Certification Test Suites are compliant to updated device specifications completed under subtask 2.1 and updated certification test procedures completed under subtask 3.1	TBD, during Phase 4
Walkthrough material to verify the updated Certification Test Suites are compliant to updated device specifications completed under subtask 2.2 and updated certification test procedures completed under subtask 3.2	TBD, during Phase 4
Task 5 – Support PlugFests	
Initial Device Specification Training Packages for Vehicle Awareness Devices, Aftermarket Safety Devices, and Roadside Safety Units	TBD, during Phase 3
Initial Testing Process Training Package(s)	TBD, during Phase 3
Updates to Device Specifications Training Packages and Testing Process Training Package(s)	As required
Task 6 – Conduct USDOT Supported Certification Testing	
Initial Device Specification Training Packages (may be one or more packages, depending on the number of device types to be tested in the USDOT Supported Certification Testing activity)	TBD, during Phase 5
Initial Testing Process Training Package	TBD, during Phase 5
Updates to the Device Specification Training Packages	As required
Updates to the Testing Process Training Package	As required
Certification Testing Outreach Plan	TBD, near the beginning of Phase 5
Device or System Certification Test Report	TBD, during Phase 5

TASK NAME AND DELIVERABLE	DUE DATE
USDOT Supported Certification Testing Report (Draft and Final)	Draft TBD, 4 weeks prior to end of Phase 5 Final, 2 weeks after receipt of USDOT comments on the draft
Task 7 – Conduct Self-Sustained Certification Testing	
Device or System Certification Test Results and Analysis Report (for each device or system tested during Phase 4)	As required, during Phase 5
Self-Sustained Certification Testing Report (Draft and Final)	Draft TBD, 4 weeks prior to end of Phase 5 Final, 2 weeks after receipt of USDOT comments on the draft
Task 8 – Certification Organization Activities	
Self-sustaining certification business plan	TBD, at least 6 weeks prior to scheduled start of phase 5

Formats of the deliverables shall be included in the Applicant’s Work-Plan and finalized at the kick-off meeting

G. SECTION 508 OF THE REHABILITATION ACT OF 1973

While the requirements of Section 508 of the Rehabilitation Act of 1973, as amended, do not apply to assistance agreements, the FHWA is subject to the Act’s requirements that all documents posted on an FHWA or FHWA-hosted website comply with the accessibility standards of the Act. Accordingly, final deliverable reports prepared under this agreement and submitted in electronic format must be submitted in a format whereby FHWA can easily meet the requirements of Section 508 of the Rehabilitation Act of 1973, as amended.

NOTE: Quarterly Progress Reports, business plans, and financial reports are not considered final deliverables and therefore the following requirements do not apply.

All final reports prepared under this agreement and the website required under this agreement must meet the requirements of Section 508 of the Rehabilitation Act of 1973, as amended. The Act 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. View [Section 508 of the Rehabilitation Act \(http://www.access-board.gov/508/508standards.htm - PART 1194\)](http://www.access-board.gov/508/508standards.htm) and the [Federal IT Accessibility Initiative Home Page \(http://section508.gov\)](http://section508.gov) for detailed information. The following paragraphs summarize the requirements for preparing FHWA reports in conformance with Section 508 for eventual posting by FHWA to an FHWA-sponsored website.

Electronic documents with images

Provide a text equivalent for every non-text element (including photographs, charts and equations) in all publications prepared in electronic format. Use descriptions such as “alt” and “longdesc” for all non-text images or place them in element content. For all documents prepared, vendors must prepare one standard HTML format as described in this statement of work AND one text format that includes descriptions for all non-text images. “Text equivalent” means text sufficient to reasonably describe the image. Images that are merely decorative require only a very brief “text equivalent” description. However, images that convey information that is important to the content of the report require text sufficient to reasonably describe that image and its purpose within the context of the report.

Electronic documents with complex charts or data tables

When preparing tables that are heavily designed, prepare adequate alternate information, so that assistive technologies can read them out. Identify row and column headers for data tables. Provide the information in a non-linear form. Markups shall be used to associate data cells and header cells for data tables that have two or more logical levels of row and column headers.

Electronic documents with forms

When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

SECTION II – AWARD INFORMATION

A. FUNDING

FHWA anticipates Federal funding in the amount of \$2,000,000 will be made available for the awards subject to availability. FHWA anticipates this funding will be split between multiple awards, with a maximum of approximately \$600,000 for each award.

NOTE: Application preparation costs are not allowable as direct charges under this Agreement.

B. COST SHARING OR MATCHING

The Federal share shall not exceed 80 percent. Program income will be handled in accordance with SECTION VI, Item **18. Program Income**.

C. NUMBER/TYPE OF AWARDS ANTICIPATED

FHWA anticipates making up to three Cooperative Agreement awards as a result of this RFA. FHWA reserves the right to make more or less than three awards.

D. PERIOD OF PERFORMANCE

The period of performance for this Cooperative Agreement will be 24 months commencing from the effective date of the agreement.

E. DEGREE OF FEDERAL INVOLVEMENT

FHWA anticipates the Federal involvement will include:

- Technical assistance and guidance;
- Close monitoring during performance;
- Involvement in technical decisions; and
- Participation in status meetings including kick off meeting and annual budget reviews.

SECTION III - ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS

This competition is full and open to all qualified applicants.

SECTION IV – APPLICATION AND SUBMISSION INFORMATION

A. APPLICATION FORMS

Applicants will complete and submit all forms included in the Application Package for this RFA as contained at www.grants.gov.

B. CONTENT AND FORM OF APPLICATION SUBMISSION

Note: *Applications under this RFA are not subject to the State review under E.O. 12372.*

The application package shall consist of the following:

- 1) **Volume 1 – Technical Application** as described below (50 double spaced pages maximum):
 - Part I - Technical and Management Approach
 - Part II - Staffing Approach
 - Part III - Experience
- 2) Volume 2 – Business Plan (12 double spaced pages maximum)
- 3) **Volume 2 – Budget Application** as described below (no page limit):

- Part I – Standard Forms
 - SF424 (**Note: Applicants may leave 5a, 5b, 6, 7, and 13 blank on the form.**)
 - SF424A (**Note: Section A: block 1(a) print opportunity title listed on page 1; block 1(b) print the CFDA number listed on page 1; block 1(c) print \$ Total Federal Funds Requested; block 1(d) print \$ Total Cost Share, and leave blank columns (e), (f), and (g) and rows 2, 3, and 4.**)
 - SF424B
 - SF-LLL (**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.**)
 - Grants.gov Lobbying Form
 - Attachments
- Part II - Cost Information and Other Financial Information

3) Volume 3 – Past Performance Information

Volume 1 - Technical Application

Note: The Technical Application cannot exceed 50 pages double spaced. In the event an application exceeds the 50 - page limitation, the Government will evaluate only the first 50 pages of the application.

- Applications will be prepared on 8½ x 11 inch paper except for foldouts used for charts, tables or figures, which will not exceed 11 x 17 inches. Foldouts will not be used for text, and will count as two pages.
- A page is defined as one side of an 8 ½ by 11 inch paper. Therefore, a piece of paper with printing on both sides is considered two pages.
- Text will be printed using the Times New Roman, and with no less than 12 point font.
- Page margins will be a minimum of 1 inch top, bottom and each side.
- Pages shall be number consecutively starting with the first page.
- No cost/price data will be included in Part I.

Technical applications must contain:

Part I - Technical and Management Approach

The application will include a program narrative statement that describes the technical and management approach.

- a. Describe in detail how you would proceed if awarded this agreement and how you propose to meet the program objectives, activities, and the anticipated outcomes.
- b. Include a discussion on proposed Activity outcomes, work products, and timeframes/timelines.
- c. Include your five year outline work plan and a detailed work plan for the first year.

Part II - Staffing Approach:

- a. Provide a program organizational chart identifying proposed staff members assigned to the project by Activity. Include the title and a brief description of each position's responsibilities, as well as the proposed level of effort and allocation of time for each position. Provide the level of effort for each position for each Activity for each year within the period of performance. Identify your Key Personnel.
- b. Provide brief tailored resumes for the proposed Program Manager and other Key Personnel to include name, experience, education, and proposed role in project. (**Note:** resumes **do** count against the designated page limitations.)

Part III - Experience:

- a. For each Activity, provide a summary of the applicant's recent (within the last 5 years) and relevant experience related to this project.

Volume 2 – Business Plan

Note: The Business Plan cannot exceed 12 pages double spaced. In the event an application exceeds the 12 - page limitation, the Government will evaluate only the first 12 pages of the application.

The Applicant shall provide a business plan that describes the services they plan to offer and how they will plan to become self-sufficient. The Business Plan shall contain a five year financial forecast of how and when the Applicant plans to become self-sufficient (for the certification testing business area) and will include income, balance sheet and cash flow information. An example outline of a business plan is provided in clause F in this section.

Volume 3 - Budget Application

Note: There is no page limit on budget applications.

Part I – Standard Forms

Part II – Cost Information and Other Financial Information

Provide a separate detailed budget plan for each year, and then summarize all years for all Activities. Spreadsheets can be formatted similarly to the format in DOT Form 4220.44 located at: http://www.fhwa.dot.gov/aaa/pdfs/frm4220_44.pdf.

Period	Summaries
Agreement Year 1:	Summary Spreadsheet for Year 1
Agreement Year 2:	Summary Spreadsheet for Year 2

Period	Summaries
TOTAL	Summary Spreadsheet for all Activities & Years

The detailed budget plan will consist of addressing each of the following items/sub-items:

1. Detailed spreadsheet and supporting information clearly delineating and supporting all estimated costs by Activity (per year and in summary form) as follows:
 - a. Provide labor categories, labor hours (or percentage of time), labor rates.
 - b. Provide indirect rates and bases, and include any audit information to support rates (for example, a copy of signed DHHS rate agreement).
 - c. Provide supporting information to justify estimates that are different than those suggested in Attachment A, Estimated Level of Effort costs such as Travel, Equipment/Material, Other Direct Costs (ODCs), etc.

Note: Travel will be reimbursed at cost in accordance with the Federal Travel Regulations in effect at the time of travel.

2. Identify any exceptions to the anticipated award Administrative Information in Section VI. 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. If sub-recipients (lower-tiered organizations and/or individual consultants) will be used in carrying out this project, the following minimum information concerning such, should be furnished:
 - a. Name and address of the organization or consultant.
 - b. Description of the portion of work to be conducted by the organization or consultant.
 - c. Cost details for that portion of work.
 - d. Letter of commitment from sub-recipient.
4. The use of a Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number is required on all applications for Federal grants or Cooperative Agreements. Please provide your organization's DUNS number in your budget application.
5. 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.
6. Include a statement to indicate whether a Federal or State organization has audited or reviewed the applicant's:
 - a. accounting system,
 - b. purchasing system, and/or
 - c. 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 Cooperative Agreements or contracts - List any Cooperative Agreements or contracts that were 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.

8. Describe how your organization will obtain the necessary resources to complete this agreement.
9. The applicant is directed to review Title [2 CFR §170](#) [located at http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr170_main_02.tpl] dated September 14, 2010, and [Appendix A](#) thereto, [located at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=10ee5024047f849dcfc5c299ee2626af&rgn=div9&view=text&node=2:1.1.1.8.8.3.1.8.2&idno=2>] 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 Request for Applications.

Volume 4 – Past Performance

Note: There is no page limit on past performance.

The Applicant shall include documentation regarding their relevant past performance as it relates to the work under this RFA. The Applicant shall submit data for past performance within the past 36 months, and not beyond. To illustrate the Applicant's past performance, the following documentation shall be submitted:

1. Agreement number, award date and agreement type.
2. Cost– original awarded AND final (or projected final, if agreement is current).
3. Significant deliverables.
4. Name, telephone number, fax number and e-mail address for the following:
 - a. Agreement Officer,
 - b. Agreement Specialist, and/or
 - c. Agreement Officer's Technical Representative.
5. Identify in specific detail for each Agreement listed, why or how that effort is considered relevant or similar to the effort required by this RFA. 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, and sub-recipient interaction.
6. A narrative explanation on each Agreement listed describing the goals accomplished and any cost growth or schedule delays encountered. For any Agreements 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 the event an Applicant does not have a record of relevant past performance, the applicant's past performance will not be evaluated favorably or unfavorably.

C. SUBMISSION DATES AND TIMES

Applications must be received electronically through www.Grants.gov by the application due date/time listed on page 1 of this Request for Application package.

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.

Late applications will not be reviewed or considered unless the Agreement Officer (AO) determines it is in the Government's best interest to consider the late application.

D. FUNDING RESTRICTIONS

This award will not allow reimbursement of pre-award costs or application preparation costs.

E. OTHER SUBMISSION REQUIREMENTS

FHWA uses www.Grants.gov for receipt of all applications. Applicants must register with www.Grants.gov and use the system to submit applications electronically. **Applicants are encouraged to register with www.Grants.gov in advance of the submission deadline and to register to receive notifications of any updates/amendments to the RFA. It is the Applicant's responsibility to monitor www.Grants.gov for any updates to the RFA.**

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 www.Grants.gov system due to technical difficulties, applicants must e-mail applications to the FHWA point of contact listed on page 1 to arrive no later than the application deadline cited above.

F. Business Plan Outline Example

Executive Summary

- Mission Statement
Provides a brief summary of the services (and products, if applicable) to be offered, the estimated market, and any key differentiators from perspective competitors.
- Summary of projected five-year income statement, profit, head count and capital requirements
- Please describe if this business is to be a new start-up or an expansion of an existing business.

Customer Need and Business Opportunity

- What services (and possibly products) are you planning to offer?
- Who are the planned customers and what are their needs that would require these services or products?
- What value do these services (and products) provide to customers? What is the value proposition?
- What is the size of the market, and are there distinct market segments (provide an annual assessment of the market for up to five years)?
- What is the basis for this market assessment (also what sources and assumptions were made)?
- How much of the market do you expect that this business to capture (provide an annual assessment for up to five years)?

Business Strategy and Key Milestones

- What are the key milestones to make the business self-sustaining and when to you anticipate this business will be self-self-sustaining? Summarize the business strategy, including key milestones, expected head count, cash needs and cash flow at each milestone.
- What types of investments are needed?
- How will the initial investments be provided and from whom?
- What is the overall business model for selling the services (and products, if applicable) and when will they be available?
- What is the anticipated competition, and what are your strengths and weaknesses in comparison with the anticipate competitors?
- What are the key business challenges and plans for addressing said challenges over the five year period?

Operations Plan

- What is the operations plan?
- What major facilities, equipment, software, and other items are required, and how will they be obtained?

Management and Key Personnel

- Organization
- Staffing plan and head count projections

Financial Projections

- o Provide a five-year financial forecast by year and describe the baseline assumptions and show how they may change over the years. Forecasts should include income statement expectations
- o Balance sheet expectations
- o Cash flow forecast
- o How much will be needed in investments and when will they be needed (should be included in the cash flow forecast)?
- o When will the organization achieve the break-even point?

SECTION V – APPLICATION REVIEW INFORMATION

A. EVALUATION FOR RESPONSIVENESS

FHWA will evaluate the applications for responsiveness to the request for applications. If an application is found to be nonresponsive at any time during evaluation, the FHWA will notify the applicant of the non-responsive determination, and the application will not receive further consideration, unless otherwise determined by the AO that further consideration is in the best interest of the Government. The FHWA also will consider the application non-responsive for any of the following reasons:

1. The application is received after the specified receipt date;
2. The application is incomplete;
3. The application does not comply with the content and format requirements of the solicitation;
4. The application does not comply with the requirements of the request for application; or
5. The material presented is insufficient to permit an adequate review.

B. EVALUATION CRITERIA

The Government will evaluate applications on these factors as specified herein and listed in descending order of importance: Technical, Cost, and Past Performance.

(1) Technical

- The applicant shall thoroughly demonstrate the following:
 - The soundness and thoroughness of the approach employed to provide certification testing and granting services;
 - The Innovation with which an approach for how to make the certification process feasible for the industry while meeting all requirements in the device specifications is described;
 - The inclusiveness of the applicants organization (and organization partners) to meet the skill and capability set that is required; and
 - The plan for coordinating with other resources (SDOs, USDOT sponsored test beds for connected vehicles) in maturing the ITS standards involved.
- The Recipient shall thoroughly demonstrate in the application that it has experience in the following areas, in order of importance:
 - Detailed knowledge of the ITS Standards involved with connected vehicles
 - Expertise in testing of devices and systems for conformance to standards and compliance to specifications
 - Expertise in using specialized equipment for testing
 - Institutional/organizational and business knowledge for testing labs and industry practices
 - Knowledge of the ITS National Architecture and the Connected Vehicle Reference Implementation Architecture (CVRIA)
 - Technical and administrative program management

- Understanding of both technical and business challenges to vehicle manufacturers, device manufactures, system integrators, and public transportation agencies in developing and deploying connected vehicle systems

(2) Feasibility of the Business Plan

- The business plan will be evaluated to assess reasonableness and realism of the business approach and its ability to achieve a self-sustaining condition. It will also be evaluated for how the planned services will promote the industry and confidence in the connected vehicle technology.

(3) 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 scored.
- If applicable (see Section III), 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.
- Funding availability will also be considered in the award decision.

(4) Past Performance

- The Government will evaluate the relevant merits of each Applicant's past performance based on its reputation and record with its current and/or former customers with respect to quality, timeliness and cost control. Past performance will be reviewed to assure that the Applicant has relevant and successful experience and will be considered in the ultimate award decision, but will not be scored. In evaluating past 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. In the event an Applicant does not have a record of relevant past performance, the Applicant's past performance will not be evaluated favorably or unfavorably.

C. REVIEW AND SELECTION PROCESS

The Government will accept the applications that are considered the most advantageous to the Government taking into account the best use of available funds to meet the objectives of the program legislation in accordance with the evaluation factors listed above.

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

D. ANTICIPATED ANNOUNCEMENT AND AWARD DATES

FHWA anticipates making award on or about September 17, 2014.

E. AWARD NOTICES

If your 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 Government. The award document, signed by the AO, is the authorizing document.

Notice that an organization 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 the negotiations do not result in an acceptable submittal, the FHWA reserves the right to terminate the negotiation and decline to fund the applicant.

SECTION VI – AWARD ADMINISTRATION INFORMATION

A. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

1. GOVERNING REGULATIONS

Performance under this agreement will be governed by and in compliance with the following requirements as applicable to the type of organization of the Recipient and to the type of organization of any applicable subrecipients:

For Indian Tribal Governments:

- 49 CFR Part 18, “Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments,” the DOT codification of OMB Circular A-102 [located at www.dot.gov/ost/m60/grant/49cfr18.htm];
- 2 CFR Part 225 (OMB Circular A-87), “Cost Principles for State, Local, and Indian Tribal Governments” [located at www.whitehouse.gov/omb/circulars_a087_2004];
- OMB Circular A-133, “Audits of States, Local Governments, and Non-Profits” [located at www.whitehouse.gov/sites/default/files/omb/circulars/a133/a133.pdf];

For State and Local Governments:

- 49 CFR Part 18, “Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments,” the DOT codification of OMB Circular A-102 [located at www.dot.gov/ost/m60/grant/49cfr18.htm];
- 2 CFR Part 225 (OMB Circular A-87), “Cost Principles for State, Local, and Indian Tribal Governments” [located at www.whitehouse.gov/omb/circulars_a087_2004];
- OMB Circular A-133, “Audits of States, Local Governments, and Non-Profits” [located at www.whitehouse.gov/sites/default/files/omb/circulars/a133/a133.pdf];

For Institutions of Higher Education:

- 49 CFR 19, “Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations”, the DOT codification of OMB Circular A110 [located at: www.dot.gov/ost/m60/grant/49cfr19.htm];
- 2 CFR Part 220 (OMB Circular A-21), “Cost Principles for Educational Institutions” [located at <http://edocket.access.gpo.gov/2005/05-16648.htm>];
- OMB Circular A-133, “Audits of States, Local Governments, and Non-Profits” [located at www.whitehouse.gov/sites/default/files/omb/circulars/a133/a133.pdf];

For Non-Profit Organizations:

- 49 CFR 19, “Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations”, the DOT codification of OMB Circular A110 [located at: www.dot.gov/ost/m60/grant/49cfr19.htm];
- 2 CFR Part 230 (OMB Circular A-122), “Cost Principles for Non-Profit Institutions” [located at edocket.access.gpo.gov/2005/05-16650.htm];
- OMB Circular A-133, “Audits of States, Local Governments, and Non-Profits” [located at www.whitehouse.gov/sites/default/files/omb/circulars/a133/a133.pdf];

For Hospitals:

- 49 CFR 19, “Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations”, the DOT codification of OMB Circular A110 [located at: www.dot.gov/ost/m60/grant/49cfr19.htm];

- 45 CFR 74, App E, “Principles for Determining Costs Applicable to Research and Development under Grants and Contracts with Hospitals” [located at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;sid=85fa827d5b4cde0a8286b0541125d28e;rgn=div5;view=text;node=45%3A1.0.1.1.35;idno=45;cc=ecfr#45:1.0.1.1.35.6.11.3.11>]
- OMB Circular A-133, “Audits of States, Local Governments, and Non-Profits” [located at www.whitehouse.gov/sites/default/files/omb/circulars/a133/a133.pdf];

For-profit Organizations:

- 49 CFR 19, “Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations”, the DOT codification of OMB Circular A110 [located at: www.dot.gov/ost/m60/grant/49cfr19.htm];
- 48 CFR 31 (Federal Acquisition Regulations) Subpart 31.2 [located at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=0cf942e3e8ae91947f14fc14b35ee2fd&rgn=div6&view=text&node=48:1.0.1.5.30.2&idno=48>]

For all organizations:

- 49 CFR Part 20, “New Restrictions On Lobbying,” [located at www.dot.gov/ost/m60/grant/49cfr20.htm];
- 49 CFR Part 21, “Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964” [located at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=a99a8496b34462b98f7cd8521c395837&rgn=div5&view=text&node=49:1.0.1.1.15&idno=49>]
- 49 CFR Part 26, “Nondiscrimination by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs” [located at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;sid=5f45dc360bda3a664764634da75532a3;rgn=div5;view=text;node=49%3A1.0.1.1.20;idno=49;cc=ecfr>]
- 49 CFR Part 27, “Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance” [located at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;sid=807a6b2d9f013f5d83a52e5de8e49450;rgn=div5;view=text;node=49%3A1.0.1.1.21;idno=49;cc=ecfr>]
- 49 CFR 32, “Governmentwide Requirements for Drug-Free Workplace (Financial Assistance) [located at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=9817ef9f832e74732ee322ffcb848d97&rgn=div5&view=text&node=49:1.0.1.1.25&idno=49>]
- Any other applicable Federal regulation or statute.

2. RESPONSIBILITIES OF THE RECIPIENT

The Recipient will provide overall program management. Specifically, the Recipient will be responsible for the following, as a minimum:

- a. Performing the Statement of Work as described in Section I, Funding Opportunity Description.
- b. Coordinating and managing work, including issuing and managing subcontracts/sub awards and consulting arrangements, as necessary.
- c. Submitting all required reports including Quarterly Progress Reports. (See Part B of this Section, entitled Reporting.)
- d. Meeting with the AOTR as necessary.
- e. During the period of performance, the FHWA and the Recipient will meet periodically, at a minimum twice annually, to discuss project activities. The location of the meeting will be established by the AOTR. **Note:** for application process, assume the meeting will be in Washington, DC and will last 1 full day.
- f. Participate in monthly meetings via teleconference or web conference with the AOTR.
- g. Participating in a kick-off meeting with the AO and/or the AOTR to discuss agreement expectations and procedures.

3. TRAVEL AND PER DIEM

Travel and per diem authorized under this agreement will be reimbursed in accordance with the travel costs section of 2 CFR Part 225 (OMB Circular A-122), "Cost Principles for State and Local Governments" or 2 CFR Part 220 (OMB Circular A-21), "Cost Principles for Educational Institutions," and 2 CFR Part 230 (OMB Circular A-122), "Cost Principles for Non-Profit Institutions" as applicable based on recipient or subrecipient type. In the absence of an acceptable, written institution policy regarding travel costs, the rates and amounts established in the Federal Travel Regulations in effect at the time of travel will apply. In addition, all non-domestic travel will be approved in writing by the AO prior to incurring costs. Travel requirements under this agreement will be met using the most economical form of transportation available. If economy class transportation is not available, the request for payment vouchers must be submitted with justification for use of higher class travel indicating dates, times, and flight numbers.

4. AMENDMENTS

Amendments to this Cooperative Agreement may only be made in writing, signed by both parties for bilateral actions and by the AO for unilateral actions, and specifically referred to as an amendment to this Cooperative Agreement.

5. AGREEMENT OFFICER'S TECHNICAL REPRESENTATIVE

The AO has designated (to be filled in at award) , as the AOTR to assist in monitoring the work under this agreement. The AOTR will oversee the technical administration of this agreement and act as technical liaison with the performing organization. The AOTR is not authorized to change the scope of work or specifications as stated in the agreement, to make any commitments or otherwise obligate the Government or authorize any changes which affect the agreement funding, delivery schedule, period of performance or other terms or conditions.

The AO is the only individual who can legally commit or obligate the Government for the expenditure of public funds. The technical administration of this agreement will not be

construed to authorize the revision of the terms and conditions of performance. The AO will authorize any such revision in writing.

6. PUBLIC ACCESS TO DOCUMENTS

The Recipient 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. FHWA anticipates the documents cited herein may be posted on a FHWA website or other appropriate website.

7. INDIRECT COSTS

Indirect costs are allowable under this agreement as follows:

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

In the event the recipient determines the need to adjust the above listed rates, the Recipient will notify the U.S. DOT 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.

8. DATA RIGHTS

The Recipient will make available to the Government copies of all work developed in performance with this Cooperative Agreement, including but not limited to software and data. The Government and others acting on its behalf will have rights to obtain, reproduce, publish or otherwise use the data developed in the performance of this Cooperative Agreement pursuant to 49 CFR Part 18 or 19, and as applicable:

- Upon completion of this Agreement, the Recipient will provide complete, useable electronic copies of the information center databases and libraries to the Government, including any source code.
- During the period of performance of this Agreement, the Recipient may access the information center databases for its own independent analyses, reporting, and distribution purposes.
- The Recipient will make the information center databases and libraries available to the Government and State agencies for analyses and for report generation without an additional fee.

- The Recipient may make the databases and libraries available to other organizations, and may choose whether or not to charge a fee for service. (See Section VI, Paragraph 19: *Program Income*.)
- Personally Identifiable Information (PII)¹ will not be requested unless necessary and only with prior approval of the AO, with concurrence from the AOTR.
- The Recipient will not provide information about private individuals or customers to others without prior approval of the AO or AS, with concurrence from the AOTR. This includes mailing lists that may have personal addresses.
- Written materials intended for the general public, whether posted on a website, electronically, or in print, must comply with the standards of the U.S. Government Printing Office's Style Manual, available at <http://www.gpoaccess.gov/stylemanual/browse.html>.

9. PAYMENT

The Recipient may request advances or reimbursement of costs incurred in the performance hereof as are allowable under the applicable cost provisions see 49 CFR Part 18.21 not-to exceed the funds currently available as stated herein. Requests should be made no more frequently than monthly.

Payments by Reimbursement: Requests for payments by reimbursement will be submitted to the payment office via DELPHI eInvoicing System. When requesting reimbursement of costs incurred and credit for cost share incurred, the Recipient will submit supporting cost detail electronically with the SF 270, Request for Advance or Reimbursement to clearly document all costs incurred. Cost detail includes a detailed breakout of all costs incurred including direct labor, indirect costs, other direct costs, travel, etc. Identify the Federal share and the Recipient's cost share portions as applicable.

The AO or Agreement Specialist (AS) reserve the right to withhold processing requests for reimbursement until sufficient detail is received. In addition, reimbursement will not be made without AOTR review and approval to ensure that progress on the Agreement is sufficient to substantiate payment. After AOTR approval, the AO will certify and forward the request for reimbursement to the payment office via DELPHI eInvoicing System.

Advance Payments: Approved Advance Payments will be processed via Markview. Instructions for the use of Markview will be provided after the Advance Payment is approved. Advance Payments will NOT be processed using the DELPHI eInvoicing System. Recipients may be paid in advance, provided they maintain or demonstrate the willingness to maintain the following in accordance with 49 CFR Part 18 or Part 19 as applicable: (1) written procedures that minimize the time elapsing between the transfer of funds and disbursement by the Recipient, and (2)

¹ Any information about a human being, living or dead, regardless of nationality, that is maintained by an agency and that permits identification of that individual to be reasonably inferred by either direct or indirect means (as in data mining), including, but not limited to, name, social security number, date and place of birth, mother's maiden name, biometric records, education, financial transactions, medical history, non-work telephone numbers, and any other personal information that is linked or linkable to an individual

financial management systems that meet the standards for fund control and accountability. When these items are not met, reimbursement will be the method for payment.

DELPHI eInvoicing System Registration and Information

The Recipient must have Internet access to register and use the DELPHI eInvoicing System. Prompt registration for DELPHI eInvoicing System is important in order to reduce the possibility of delayed payments.

All persons accessing the DELPHI eInvoicing System will be required to have their own unique user ID and password. It is not possible to have a generic ID and password for a Recipient.

To register for DELPHI eInvoicing System Recipients must eAuthenticate and activate an account by contacting their AO and providing the full name, title, phone number and e-mail address for the appropriate point(s) of contact (POC) who will submit payment requests. Within two weeks the POC should receive an invite to sign up for the system. The POC will also receive a form to verify their identity. The POC must complete the form, and present it to a Notary Public for verification. The POC will return the notarized form to:

DOT Enterprise Service Center
FAA Accounts Payable, AMZ-100
PO Box 25710
Oklahoma City, OK 73125

When the form is received and validated the Recipient POC will receive a unique user ID and password via e-mail. POCs should contact their AO with any changes to their system information.

A tutorial for the eAuthentication and account activation process can be found here:
<http://www.dot.gov/cfo/delphi/grant-recipient/eauthentication-user-tutorial-final.ppt>

Recipients registered with other DOT Agencies, such as Federal Aviation Administration or Federal Railroad Administration, must also apply for access with FHWA in order to request payment from FHWA.

To facilitate your use of the system the DELPHI eInvoicing website provides comprehensive user's information including:

- Web-based training at <http://www.dot.gov/cfo/delphi/web-based-training/grant-recipient/lessons/index.html>,
- Desktop User's Manual at <http://www.dot.gov/cfo/delphi/grant-recipient/grant-recipient-desktop-guide-final.pdf>,
- Several Quick Reference Guides (QRGs) at <http://www.dot.gov/cfo/delphi-training-system.html>,

- QRG for Creating a Standard Invoice at <http://www.dot.gov/cfo/delphi/grant-recipient/grant-recipient-qrg-creating-standard-invoice.pdf>,
- QRG for Creating a Credit Memo at <http://www.dot.gov/cfo/delphi/grant-recipient/grant-recipient-qrg-creating-credit-memo.pdf>.

Account Management: The Recipient should contact their AO when POCs have left their organization or are no longer will be submitting invoices, with the **full name, title, phone number, e-mail address, and user ID** of the POC. The user ID will then be removed. If a user ID becomes inactive/times out due no activity, the Recipient should contact their AO/AS with the **full name, title, phone number, e-mail address, and user ID** of the POC to be reactivated.

Note: To prevent being timed out due to no-activity, users should login once within 45 days of their last login.

Waivers

The Department of Transportation Financial Management officials may, on a case by case basis, waive the requirement to register and use the DELPHI eInvoicing System. Waiver request forms can be obtained on the DELPHI eInvoicing website (<http://www.dot.gov/cfo/delphi-einvoicing-system.html>) or by contacting the AO. Recipients must explain why they are unable to use or access the Internet to register and enter payment requests.

All waiver requests should be sent to via mail to:

Director of the Office of Financial Management
US Department of Transportation, B-30
Office of Financial Management, Room W93-431
1200 New Jersey Avenue SE
Washington DC 20590-0001

Or electronically to: DOTElectronicInvoicing@dot.gov

The Director of the DOT Office of Financial Management will confirm or deny the request within approximately 30 days.

If a Recipient is granted a Waiver, Requests for advance or reimbursement and required supporting documents, should be sent via regular U.S. Postal Service to the following address:

Federal Highway Administration
Markview Processing
P.O. Box 268865
Oklahoma City, OK 73126-8865
Attention: Freida Byrd

Requests for advance or reimbursement submitted via an overnight service must use the following physical address:

MMAC
FHWA/AMZ-150
6500 MacArthur Blvd.

Oklahoma City, OK 73169
Attention: Freida Byrd

Express Delivery Point of Contact: April Grisham, 405-954-8269.

10. ACKNOWLEDGEMENT OF SUPPORT AND DISCLAIMER

An acknowledgment of U.S. DOT support and a disclaimer must appear in any publication of any material, whether copyrighted or not, based on or developed under the Cooperative Agreement, in the following terms:

“This material is based upon work supported by the U.S. Department of Transportation under Cooperative Agreement No. DTFH6114H_____ (to be filled in at award)”.

All materials must also contain the following:

"Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the Author(s) and do not necessarily reflect the view of the U.S. Department of Transportation."

11. SITE VISITS

The Federal Government, through its authorized representatives, has the right, at all reasonable times, to make site visits to review project accomplishments and management control systems and to provide such technical assistance as may be required. If any site visit is made by the Federal Government on the premises of the Performing Organization or a subrecipient under this Cooperative Agreement, the Performing Organization will provide and will require their subrecipients to provide all reasonable facilities and assistance for the safety and convenience of the Government representative in the performance of their duties. All site visits and evaluations will be performed in such a manner as will not unduly delay work.

12. BUDGET REVISION/REALLOCATION OF AMOUNTS

The Recipient is required to report deviations from budget and program plans, and request prior approval for budget and program plan revisions in accordance with 49 CFR Part 18.30 or 49 CFR Part 19.25 as applicable.

Note: The Recipient must obtain prior written approval from the AO to transfer amounts budgeted for direct cost categories when the cumulative value of such transfers will exceed 10% of the value of Federal share of this agreement.

In addition to the above requirements, the Recipient shall notify the AOTR and AO of budget deviations of greater than 5% of the value of the Federal share in any year.

13. FINANCIAL MANAGEMENT SYSTEM

By signing this agreement, the Recipient verifies that it has, or will implement, a financial management system adequate for monitoring the accumulation of costs and that it complies with the financial management system requirements of 49 CFR Part 18 or 49 CFR Part 19, as

applicable. The Recipient's failure to comply with these requirements may result in agreement termination.

14. ALLOWABILITY OF COSTS

Allowable costs will be determined in accordance with the applicable Federal cost principles, as applicable based on recipient or subrecipient type, e.g., For-profit organizations, FAR 31.2; Non-profit organizations, 2 CFR Part 230; Educational Institutions, 2 CFR Part 220, and 2 CFR Part 225; Cost Principles for State and Local Governments.

15. AVAILABLE FUNDING

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

(1) Currently, Federal funds in the amount of \$_____ (to be filled in at award), are obligated to this agreement.

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

16. SYSTEM FOR AWARD MANAGEMENT (SAM)

SAM is the official, United States Government system that replaces the Central Contractor Registration (CCR), Federal Agency Registration (FedReg), Online Representations and Certifications Application (ORCA), and the Excluded Parties List System (EPLS). The information previously maintained in CCR, FedReg and ORCA is currently maintained within the Entity Management area in SAM. Legacy EPLS information resides in the Performance Information area of SAM. **The Recipient must be registered in SAM in order to receive payments under this agreement. Information for registering in SAM and training tools are available on the SAM website at www.sam.gov.**

17. KEY PERSONNEL

The Recipient will 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:

<i>Name</i>	<i>Title/Position</i>

(Information to be filled in at award)

18. PROGRAM INCOME

Program Income earned during the project period will be retained by the Recipient and added to funds committed to the project by the Federal awarding agency and the Recipient and used to further eligible project or program objectives, unless otherwise approved by the AO. Program income will not be used to offset the Federal contribution to this project.

19. SUBAWARDS

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

20. PRINTING

The Recipient will obtain prior written approval from the AOTR to print more than ten copies of any deliverable under this agreement. The Recipient will submit such requests in writing or by email to the AOTR, to include specifics on the deliverable, requested printing quantity, and estimated costs for printing.

21. DRUG FREE WORKPLACE

The Recipient will comply with Subpart B of 49 CFR Part 32, Governmentwide Requirements for a Drug-Free Workplace (Financial Assistance). See 49 CFR Part 32 for details of the requirement. (Note: 49 CFR Part 32 is available online at <http://www.dot.gov/ost/m60/grant/regs.htm>).

22. DEBARMENT AND SUSPENSION REQUIREMENTS

The Recipient will comply with the 2 CFR Part 180, OMB Guidelines to Agencies on Government Debarment and Suspension (Nonprocurement). Further, the Recipient will flow down this requirement to applicable subawards by including a similar terms or condition in lower-tier covered transactions. See Subpart C within 2 CFR Part 180.300 for details of the requirement.

23. TERMINATION AND SUSPENSION

FHWA may terminate or suspend this agreement, in whole or in part, at any time prior to its expiration date in accordance with 49 CFR Part 18 or Part 19, as applicable. The Recipient may appeal a decision by the U.S. DOT, to terminate or suspend this agreement, in writing to the next level above the AO within 30 days after receipt of the decision letter.

24. 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 Disputes 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, identifying unresolved issues and specifying 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 the AO. The other party will submit a written position on the matters in dispute within thirty calendar days after being notified that a decision has been requested. 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 position. 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.

25. FINANCIAL ASSISTANCE POLICY TO BAN TEXT MESSAGING WHILE DRIVING

a) Definitions. As used in this clause-

“Driving” - Means operating a motor vehicle on an active roadway with the motor running, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise. Does not include operating a motor vehicle with or without the motor running when one has pulled over to the side of, or off, an active roadway and has halted in a location where one can safely remain stationary.

“Text messaging” - means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of

electronic data retrieval or electronic data communication. The term does not include glancing at or listening to a navigational device that is secured in a commercially designed holder affixed to the vehicle, provided that the destination and route are programmed into the device either before driving or while stopped in a location off the roadway where it is safe and legal to park.

- b) This clause implements Executive Order 13513, Federal Leadership on Reducing Text Messaging while Driving, dated October 1, 2009.
- c) The Recipient should-
 - a. Adopt and enforce policies that ban text messaging while driving- (i) Company-owned or -rented vehicles or Government-owned vehicles; or (ii) Privately-owned vehicles when on official Government business or when performing any work for or on behalf of the Government.
 - b. Conduct initiatives in a manner commensurate with the size of the business, such as- (i) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and (ii) Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.
- d) Subagreements/subcontracts. The Recipient shall insert the substance of this clause, including this paragraph (d), in all subagreement/subcontracts that exceed the micro-purchase threshold.

26. REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUB-AWARDS (2 CFR Part 170, Appendix A)

I. Reporting Subawards and Executive Compensation.

a. *Reporting of first-tier subawards.*

1. *Applicability.* Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates \$25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in paragraph e. of this award term).

2. *Where and when to report.*

- i. You must report each obligating action described in paragraph a.1. of this award term to <http://www.fsrs.gov>.
- ii. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)

3. *What to report.* You must report the information about each obligating action that the submission instructions posted at <http://www.fsrs.gov> specify.

b. Reporting Total Compensation of Recipient Executives.

1. *Applicability and what to report.* You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if—

- i. the total Federal funding authorized to date under this award is \$25,000 or more;
- ii. in the preceding fiscal year, you received—
 - (A) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
 - (B) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
- iii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>.)

2. *Where and when to report.* You must report executive total compensation described in paragraph b.1. of this award term:

- i. As part of your registration profile at <http://www.ccr.gov>.
- ii. By the end of the month following the month in which this award is made, and annually thereafter.

c. Reporting of Total Compensation of Subrecipient Executives.

1. *Applicability and what to report.* Unless you are exempt as provided in paragraph d. of this award term, for each first-tier subrecipient under this award, you will report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if—

- i. in the subrecipient's preceding fiscal year, the subrecipient received—
 - (A) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
 - (B) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and
- ii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>.)

2. *Where and when to report.* You must report subrecipient executive total compensation described in paragraph c.1. of this award term:

- i. To the recipient.

ii. By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (*i.e.*, between October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.

d. *Exemptions*

If, in the previous tax year, you had gross income, from all sources, under \$300,000, you are exempt from the requirements to report:

- i. Subawards, and
- ii. The total compensation of the five most highly compensated executives of any subrecipient.

e. *Definitions.* For purposes of this award term:

1. *Entity* means all of the following, as defined in 2 CFR part 25:
 - i. A Governmental organization, which is a State, local government, or Indian tribe;
 - ii. A foreign public entity;
 - iii. A domestic or foreign nonprofit organization;
 - iv. A domestic or foreign for-profit organization;
 - v. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.
2. *Executive* means officers, managing partners, or any other employees in management positions.
3. *Subaward*:
 - i. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.
 - ii. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. __ .210 of the attachment to OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations").
 - iii. A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.
4. *Subrecipient* means an entity that:
 - i. Receives a subaward from you (the recipient) under this award; and
 - ii. Is accountable to you for the use of the Federal funds provided by the subaward.
5. *Total compensation* means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):
 - i. *Salary and bonus.*
 - ii. *Awards of stock, stock options, and stock appreciation rights.* Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in

accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.

iii. *Earnings for services under non-equity incentive plans.* This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

iv. *Change in pension value.* This is the change in present value of defined benefit and actuarial pension plans.

v. *Above-market earnings on deferred compensation which is not tax-qualified.*

vi. Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds \$10,000.

B. REPORTING

1. ADDRESSES FOR SUBMITTAL OF REPORTS AND DOCUMENTS

The Recipient will submit all required reports and documents, under transmittal letter referencing the Cooperative Agreement number, as follows:

Submit an electronic copy and one hard copy to the AS at the following address:

Federal Highway Administration
Office of Acquisition and Grants Management
1200 New Jersey Avenue, SE
Mail Stop E65-101
Washington, DC 20590
Attention: Freida Byrd, HCFA-32

E-mail: Freida.Byrd@dot.gov

Submit an electronic copy and one hard copy to the AOTR at the following address:

Federal Highway Administration
1200 New Jersey Avenue, SE
Washington, DC 20590
Attention: (to be filled in at award)
E-mail: (to be filled in at award)

2. QUARTERLY PROGRESS REPORT

The Recipient will submit an electronic copy of the SF-PPR, to the AOTR, the GTM, and the AS on or before the 30th of the month following the calendar quarter being reported. Final PPRs are due 90 days after the end of the agreement period of performance.

Calendar quarters are defined as:

1st : January – March
2nd : April – June
3rd : July – September
4th : October – December

Reports due on or before:

April 30th
July 30th
October 30th
January 30th

The quarterly submittal will consist of the SF-PPR cover page and all of the following required attached information:

To fulfill the SF-PPR Block 10, Performance Narrative requirement, the Recipient will complete the Quarterly Reporting Template (expand as necessary) that will provide a formatted report of:

- Work performed for the current quarter;
- Work planned for the upcoming quarter;
- 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 grant agreement, together with recommended solutions to such problems; or, a statement that no problems were encountered;
- A tabulation of the current and cumulative costs expended by cost element (labor, travel, indirect costs, subrecipients, etc.) by quarter versus budgeted costs.
- Work performed in support of the FHWA and DOT Strategic Goals & NLTAPA Strategic Plan key focus areas
- Budget revisions
- Center Advisory Committee Meetings

In the SF-PPR Block 11, Other Attachments, include the following information as attached pages:

- SF-425, Federal Financial Report, and
- SF-425A, Federal Financial Report Attachment (if applicable).

The SF-PPR and SF-425 forms are available online at http://www.whitehouse.gov/omb/grants/grants_forms.html.

3. ANNUAL BUDGET REVIEW AND PROGRAM PLAN

The Recipient will submit an electronic copy and one hard copy of the Annual Budget Review and Program Plan to the AOTR and one electronic copy and one hard copy to the AS 60 days prior to the anniversary date of this agreement. The Annual Budget Review and Program Plan will 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 will contain a statement stating such. The Recipient will meet via teleconference or web conference with FHWA to discuss the Annual Budget Review and Program Plan. Work proposed under the Annual Budget Review and Program Plan will not commence until AO's written approval is received.

4. ANNUAL PROPERTY REPORT

The Recipient will submit an electronic copy and one hard copy of the SF-428 Tangible Personal Property Report to the AOTR and one electronic copy and one hard copy to the AS 60 days prior to the anniversary date of this agreement.

If no property was furnished or acquired during the agreement up to the end date of the reporting period, indicate that information in block 8 of the SF-428. If property was furnished or acquired during the agreement up to the end date of the reporting period, list the property on the SF-428-A and SF-428S forms. Use additional sheets as necessary. Use separate sets of sheets to show Federally owned property and Recipient owned property.

The SF-428 series of forms are available online at
http://www.whitehouse.gov/omb/grants/grants_forms.html.

SECTION VII - AGENCY CONTACT

Address any questions to:

Primary Point of Contact

Freida Byrd, Agreement Specialist
Federal Highway Administration
Office of Acquisition and Grants Management (HCFA-32)
Email: Freida.Byrd@dot.gov
Phone: (202) 366-6547

Secondary Point of Contact

Sarah Berman, Agreement Officer
Federal Highway Administration
Office of Acquisition and Grants Management (HCFA-32)
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