SUPPORTING STATEMENT (NEW INFORMATION COLLECTION):

Strengthening Mobility And Revolutionizing Transportation (SMART) Grant Program

Introduction: This is to request OMB clearance for the information collection entitled Strengthening Mobility And Revolutionizing Transportation (SMART) Grant program. The program is being implemented pursuant to the Bipartisan Infrastructure Law (BIL) § 25005; 23 U.S.C. 502(b). The purpose of this program is to conduct demonstration projects focused on advanced smart city or community technologies and systems in a variety of communities to improve transportation efficiency and safety.

Eligible entities must respond to the SMART Grant Notice of Funding Opportunity (NOFO) by completing an application. In addition, eligible entities awarded grants must demonstrate the means by which the project met its goals, such as:

- reducing traffic-related fatalities and injuries;

- reducing traffic congestion or improving travel-time reliability;

- providing the public with access to real-time integrated traffic, transit, and multimodal transportation information to make informed travel decisions; or

- reducing barriers or improving access to jobs, education, or various essential services;

- the effectiveness of providing to the public real-time integrated traffic, transit, and multimodal

- transportation information to make informed travel decisions; and

- lessons learned and recommendations for future deployment strategies to optimize transportation efficiency and multimodal system performance.

The US Department of Transportation (USDOT) Office of the Secretary of Transportation (OST) manages this grant program and will award grants to eligible entities on an annual basis for five fiscal years. This information collection request (ICR) covers the first three years of the program, with a new cohort of entities being awarded a grant each year. Key aspects of this ICR are described below.

- Responding to the collection is voluntary and is required to obtain or retain a benefit.

- Eligible responders are States, political subdivisions of a State, tribal governments, public transit agencies or authorities, public toll authorities, metropolitan planning organizations, and groups of 2 or more the eligible entities (applying through a single lead applicant).

- The Program will be comprised of two stages. In Stage 1, recipients will be funded to deploy a plan and/or prototype. Those awarded a Stage 1 grant will be eligible to submit an application (Stage 2) to deploy their projects more broadly.

    o   Requirements unique to Stage 1 include the Stage 1 grant application and grant agreement and a Draft Evaluation Plan.

- o Requirements unique to Stage 2 include a Stage 2 grant application and grant agreement, a Final (Updated) Evaluation Plan, a Data Management Plan, and a Final Implementation Report.

- o Ongoing requirements, regardless of stage, include Quarterly Progress Reports and Annual Implementation Reports

- The information is collected as needed.

- Information relevant to the application is spelled out in the NOFO, as are any reporting requirements agreed to by Grants recipients.

- The information will be received by USDOT.

The purpose of the collection is to receive information relevant to evaluating applications to the SMART Grant program, per the NOFO, and reporting requirements agreed to by recipients of the Grants.

This ICR supports the FY 2022 – 2026 DOT Strategic Plan, including the six strategic goals of:

1. Safety
2. Economic Strength & Global Competitiveness
3. Equity
4. Climate & Sustainability
5. Transformation
6. Organizational Excellence

<u>Part A. Justification</u>

1. <u>Circumstances that make collection of information necessary</u>:

The collection of information is necessary in order to receive applications for grant funds, monitor project financial conditions and project progress pursuant to the Department's SMART Grant Program, and to evaluate the effectiveness of projects that have been awarded grant funds. As noted above, this program was established under BIL, and as such carrying out this program is required by law. The relevant section of the Bipartisan Infrastructure Law (BIL), Section 25005 is attached hereto as Exhibit A.

The additional requirements of recipients, including Quarterly Progress Reports, Annual Implementation Reports, and Final Implementation Reports will be used to monitor grant program recipients' project progress and project performance and evaluation.

The reporting requirements are submitted by recipients and can be classified into four key categories: application process, grant agreement, project management, and project evaluation. Each of these categories are described in more detail below.

Application Process

In order to be considered to receive a SMART grant, an eligible applicant must submit an application to DOT containing the information as detailed in the NOFO (see Exhibit B for the

Application). The application is necessary for soliciting proposals for funding from applicants. The grant application shall request the information necessary for the Department to determine that the project satisfies eligibility requirements as warranted by law. BIL outlines the selection criteria for projects, factors that should be prioritized when considering projects, eligible technologies, and eligible costs. Recipients must demonstrate in their applications that they have met each of these grant program requirements.

In the first stage of the grant process, selected entities will be funded to develop a plan and/or a prototype. Stage 1 recipients will be eligible to apply for Stage 2 grants, which will fund a more broadly scaled demonstration of the project.

Since this is a five year grant program, the NOFO will be posted annually, including a separate NOFO for Stage 1 and Stage 2. While the program anticipates that there will be new applicants with each NOFO (these are also referred to as cohorts in this document), entities may apply more than once if they fail to secure a grant in their first attempt. Similarly, Stage 1 recipients may re-apply for a Stage 2 grant if they are not previously successful.

Grant Agreement

The grant agreement is an agreement between USDOT and the recipient. Separate agreements will be established in Stage 1 and Stage 2; however, these are one-time requirements for each of the cohorts (unless modifications to the agreement are needed). In the grant agreement, the recipient must describe the project that DOT agreed to fund, which is the project that was described in the SMART Grant application. For Stage 1, the agreement must include the initial plan or prototype of the selected Stage 1 project. For Stage 2 recipients, a new agreement will be executed that describes the more broadly scaled project that will be demonstrated. In both stages, the grant agreement also must include a detailed breakdown of the project schedule and a budget listing all major activities and deliverables that will be completed as part of the project.

Project Management

The project management reporting requirement includes **Quarterly Progress Reports**. These reports are necessary to ensure the proper and timely expenditure of federal funds within the scope of the approved project. The requirements comply with the Common Grant Rule and are also included in sections of the grant agreement. Following award, and as part of project management, the recipient will complete Quarterly Progress Reports for the duration of the project to ensure that the project budget and schedule will be maintained to the maximum extent possible, that the project will be completed with the highest degree of quality, and that compliance with Federal regulations will be met. The substantive requirements of the Quarterly Progress Report include: the project's overall status; project significant activities and milestones; action items/outstanding issues; project scope overview; project schedule; financial reporting (i.e., an SF-425 Federal Financial Report); and certifications. This reporting requirement will greatly reduce the need for on-site visits by staff.

Project Evaluation

The reporting requirements under this phase are necessary to assess program effectiveness for the Federal Government in both the Executive and Congressional branches. The requirements include an **Evaluation Plan**, **Data Management Plan**, **Annual Implementation Reports**, and the **Final Implementation Report**.

- **The Evaluation Plan** describes the performance measures, evaluation design and methods, and data sources that the recipient will use to measure the impacts and outcomes of their project. The recipients' evaluation plan enables DOT to ensure that

recipients are preparing for their evaluation and that their evaluation plans are robust. Recipients must submit a Draft Evaluation Plan in Stage 1 and a Final Evaluation Plan in Stage 2.

- **Data Management Plan** describes in more detail how the data will be collected, stored, and maintained. The Draft and Final versions of the Data Management Plan are only required for Stage 2 recipients.
- **Annual Implementation Reports**[1] provide a brief summary of the project and its status, describe the performance measures that are being used to measure project impacts, and provide updates on evaluation-related milestones, challenges, issues, etc. Recipients must submit these reports annually for the duration of the project, starting no later than one year after the award of the Stage 1 grant.

  By statute (BIL, Section 25005 (f)(1)), each grant recipient is required to submit a report that describes the costs of each eligible project carried out using the grant funds; the outcomes and benefits generated; and the lessons learned and any recommendations relating to future projects or strategies. At the end of the project, recipients will submit a Final Implementation Report that details their findings and the extent to which the projects achieved their targeted outcomes.

  Information provided in the Annual Reports will allow the Government to analyze project performance. This information permits federal Executive and Congressional evaluation of the program. However, it should be noted that during the first three-year period covered by this ICR, recipients will not yet have submitted a Final Implementation Report.

2. How, by whom, and for what purpose is the information used:

For each applicant, the applications are a one-time collection conducted in Stage 1 and in Stage 2 in response to the SMART Grant NOFO; however, there will be a new cohort of applicants each year. For Stage 1, USDOT will use the completed application to determine the eligibility of proposed projects as well as their feasibility. At Stage 2, the USDOT will use the completed application to assess if the Stage 1 applicant is ready to move onto Stage 2 and to demonstrate their project more broadly.

Grant agreements will be executed separately for each stage of the grant program. The USDOT uses these agreements to establish the terms by which the disbursed funds will be used (e.g., timeline, deliverables, etc.). For each recipient, the Stage 1 and Stage 2 grant agreements are a one-time collection; however, there will be separate cohorts of recipients (approximately one per year) covered by this ICR.

USDOT Quarterly Progress Reports and Annual Implementation Reporting are necessary to ensure that the projects are progressing as anticipated and that federal dollars are being spent appropriately. Such regular reporting keeps USDOT informed on whether projects are on schedule and within budget and enables USDOT to identify problems as they arise, so that they can work with recipients to resolve any issues in a timely fashion. Likewise, the Evaluation Plan and Data Management Plan provide a mechanism for ensuring that recipients are planning for how they will execute their project evaluations. The Final Implementation Report is a one- time collection that summarizes the overall benefits of the project as compared to the costs, and the extent to which the project met original expectations. The USDOT will use the Final Reports to assess the impacts of individual projects as well as the overall effectiveness of the Program. More specifically, USDOT will use the Annual Implementation Reports and Final Implementation

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[1] While the annual Implementation Reports are included under "Project Evaluation," they also serve as a tool for monitoring Project Management.

Reports to meet the SMART Grant reporting requirements outlined in BIL, including a Report to Congress and a Best Practices document.

3. Extent of automated information collection:

Grant applications will be submitted electronically. Likewise, Quarterly Progress Reports, the Evaluation Plan, the Data Management Plan, Annual Implementation Reports, and the Final Implementation Report will be submitted electronically.

4. Efforts to identify duplication:

This information collection requirement does not duplicate any other requirements. It is a grant program stipulated in BIL.

5. Efforts to minimize the burden on small businesses:

There is no impact on small businesses.

6. Impact of less frequent collection of information:

Without the Applications, the USDOT would have no way to determine the eligibility of proposed projects as well as their feasibility. Moreover, the USDOT would not be able to assess whether the Stage 1 projects are ready to move onto Stage 2.

Without the **grant agreements**, the USDOT would not be able to execute the transfer of funds and hold the recipients accountable to a timeline and to specified project deliverables.

With less frequent collection of **Quarterly Progress Reports** and **Annual Implementation Reports**, the USDOT would be less likely to identify problems as they arise, thus delaying possible mitigation strategies and increasing the risks of the project. The Quarterly Progress Reports will provide USDOT with information on whether recipients need technical assistance or if there are programmatic issues that need to be addressed.

Without the **Evaluation Plan and Data Management Plan** the USDOT would not have a method for determining if recipients are on track to measure the impacts and outcomes of their projects.

Without the **Final Implementation Report**, the USDOT does not have a method for assessing the benefits and impacts of individual projects, nor can it determine the overall effectiveness of the Program. Moreover, USDOT cannot closeout the project successfully.

7. Special circumstances:

There are no special circumstances related to this information collection.

8. Compliance with 5 CFR 1320.8:

A Federal Register notice was published on June 2, 2022, which solicited public comments on the intention of the USDOT to seek approval for this new information collection. No comments were received.

9. Payments or gifts to respondents:

No payments or gifts are provided to the recipients.

10. Assurance of confidentiality:

None of the information is considered confidential as it is all available to the public.

11. Justification for collection of sensitive information:

There are no questions of a sensitive nature.

12. Estimate of burden hours for information requested:

The annual burden is calculated separately for the different phases of the grant program. Based on the experience of the ATCMTD Grant Program, approximately 60 entities are expected to apply each year (i.e., each year being a cohort), and it is anticipated that USDOT will award 30 to 50 Stage 1 grants each year (the calculations below assume 40 project awards per year). For the purposes of estimating the burden, it is assumed that ALL Stage 1 recipients are awarded a Stage 2 grant to demonstrate their projects more broadly. Depending on the complexity of the project, there could be quite a bit of variability in the hours required to prepare the following requirements. As a result, the burden hours included in the table below represent an estimate for the number of hours that will be needed to complete the requirement, on average. The rows highlighted in yellow include ongoing requirements that are collected for the duration of the IC for each cohort. All other information is a one-time collection for each cohort.

Requirements	Number of Annual Submissions	Burden Hours per submission	Total Annual Burden Per Cohort	Notes
Application Process				While each applicant only needs to complete one Stage 1 and Stage 2 application, and execute one Stage 1 and Stage 2 agreement, the Program will repeat this process annually, resulting in DIFFERENT cohorts (assume 3 cohorts for burden calculation).
• Stage 1	120	100	12,000	
• Stage 2	40	40	1,600	
Grant Agreement				
• Stage 1 Set-up/Execution	40	10	400	
• Stage 2 Set-up/Execution	40	15	600	
Project Management				
• Quarterly Progress Reports	40	20 (Annual hours - see Notes column for calculations)	800	These reports are ongoing and delivered quarterly by each grantee for the project duration. **Assume 4 reports/year** **Assume 5 hours/Report**
Project Evaluation				
Evaluation Plan (Draft and Final)	40	60	2,400	
Data Management Plan (Draft and Final)	40	24	960	
Annual Implementation Reports[2]	40	30	1,200	These reports are ongoing and delivered annually by each grantee for the project duration.

[2] The burden for the Final Implementation Report is not shown here because over the three year period of this IC, there will not be any projects submitting a Final Report.

ANNUAL TOTALS (PER COHORT)				
• Application Process Total	160	140	13,600	The number of submissions and the burden hours vary by stage, so the total burden must be summed across the two stages (see above).
• Grant Agreement Total	40	25	1,000	
• Project Management Total	40	20	800	
• Project Evaluation Total	40	114	4,560	

13. Estimate of total annual costs to respondents:

The costs are calculated for each cohort by phase, and the end of this section presents a summary of total costs to the recipients.

Application

We estimate that it takes approximately 100 person-hours to read the Notice of Funding Opportunity and compile an application package for a Smart Grant. Since USDOT expects to receive 120 applications per year the total hours required are estimated to be 12,000 hours (100 hours * 120 applications) on a one-time basis for each cohort; however, there will be a new cohort each year. Although various personnel are involved in the development of an application, the average salary is estimated to be $33 per hour. This is based on the average wage of a project manager in the local government sector of $32.92 (Bureau of Labor Statistics). Therefore, the cost to the applicants for each cohort is computed at $396,000 (12,000 x $33 = $396,000).

It is anticipated that 30 to 50 entities (i.e., on average, 40) will be awarded a grant in Stage 1 and will apply for a Stage 2 grant. The Stage 2 application is expected to take approximately 40 hours to complete, on average. Therefore, the total number of hours per cohort is 1,600 (40 recipients*40 hours), and the total cost to the Stage 2 applicants is computed at $52,800 (1,600 x $33), which is a one-time cost for each cohort.

Grant Agreement:

We estimate that it will take approximately 10 person hours, on average, for grantees to work with USDOT to set up and execute their Stage 1 grant agreements. USDOT estimates that there will likely be 40 Stage 1 grant agreements negotiated per year, resulting in 400 hours for the Stage 1 grant hours (10 hours* 40 recipients). Although various personnel are involved in the development of an application, the average salary is estimated to be $33 per hour. The estimated cost to the recipients for the Stage 1 grant agreements will be $13,200.

Assuming that all of the Stage 1 recipients move on to Stage 2, this would require setting up a new grant agreement in Stage 2, which is estimated to take 15 hours of staff time, on a one-time basis, per cohort. Based on the 40 recipients, the total number of hours is estimated to be 600 (15 hours* 40 recipients). Therefore, the cost to the recipients is computed at $19,800 (600 hours x $33) for each cohort. The total cost of both stages of the grant agreement is $33,000, a one-time cost for each cohort.

Project Management:

We estimate that it takes approximately 5 person-hours to develop and submit a quarterly project progress report to USDOT for review, and therefore it will take 20 hours of staff time per year. Based on the expected number of awards (40 per year), the total number of hours for each cohort

per year is 800 (40* 20 hours). Although various personnel are involved in the development of an application, the average salary is estimated to be $33 per hour. As a result, there will be an annual cost of $26,400 (800*$33). Since each cohort will deliver quarterly project progress reports each year, the total cost to the first cohort over the course of the Information collection is $79,200 ($26,400*3).

Project Evaluation:

We estimate that it takes, on average, approximately 60 person-hour to develop a draft and final evaluation plan and 24 hours to develop a draft and final data management plan, for a total of 84 hours. Since USDOT expects to receive 40 Evaluation Plans and Data Managements for each cohort, the total number of hours per cohort for these two reporting requirements is anticipated to be 3,360 (40*84 hours). Although various personnel are involved in the development of an application, the average salary is estimated to be $33 per hour. Therefore, the cost to the recipients for each cohort is computed at $110,880 (3,360 hours x $33).

As part of measuring outcomes grantees will be required to submit annual implementation reports to provide progress on their projects and to report on challenges, issues and lessons learned. On average, we anticipate the annual implementation reports will require 30 hours to complete, and since USDOT expects 40 grantees per cohort, the total annual hours per cohort is expected to be 1,200 hours (40*30 hours). Using an average salary estimated to be $33 per hour, the annual cost to the first cohort will be $39,600. The total cost to the first cohort (i.e., for all three years) is estimated to be $118,800.

The annual cost for the first cohort (including all the one-time activities as well as the ongoing activities) is $658,680, and the total cost for the first cohort (over the three years) is $790,680. Costs for subsequent cohorts (Year 2 and Year 3) are somewhat lower because they will not deliver as many Quarterly Progress Reports or Annual Implementation Reports.

The grand total estimated cost to all applicants and recipients (across the estimated three cohorts) for the application, grant agreement, project management, and project evaluation phases is $2,174,040.

14. Estimate of cost to the Federal government:

There are no costs other than Federal government salaries. The table below summarizes the costs to the Federal government, and a more detailed explanation of the cost per phase and task follows the table.

Phase/Task	Annual Staff time (person-hours)	Number of annual submissions	Cost per Hour	Annual Cost for first Cohort	Total Cost (for all 3 cohorts)
Application Process (e.g., review applications)					
• Stage 1	12	120	$49	$70,560	$211,680
• Stage 2	12	40	$49	$23,520	$70,560
Grant Agreement					
• Stage 1 Set-up/Execute	15	40	$49	$29,400	$88,200
• Stage 2 Set-up/Execute	20	40	$49	$39,200	$117,600
Project Management					
• Quarterly Progress Reports	2	160 (40*4 reports/yr.)	$49	$15,680	$94,080
Project Evaluation					
• Review Evaluation Plan	12	40	$49	$23,520	$70,560

(Draft & Final)					
• Review Data Management Plan (Draft and Final)	8	40	$49	$15,680	$47,040
• Review Annual Implementation Reports[3]	6	40	$49	$11,760	$70,560
TOTAL				**$229,320**	**$770,280**

Application Process:

USDOT will review the applications to assess project eligibility and merit and to provide information for the discretionary decision-making process prior to the award of any future SMART grants.

We estimate that the average grade level of the reviewers is GS-12/step 5, paid at approximately $49 per hour. Each project will require approximately 12 person-hours of review as an overall average. Since the Federal government expects to evaluate 120 applications per year (on average), the cost to the federal Government is $70,560 (12 hours x 120 applications = 1,440 hours x $49), per cohort, or **$211,680** for the three years of this IC. The Stage 1 applications are reviewed once for each of the three cohorts covered by this ICR.

Each of the Stage 2 applications are anticipated to take about 12 person-hours of review, and assuming that all 40 Stage 1 grantees will apply for Stage 2, the total review time will be 480 hours per year, for a total annual cost of **$23,520** (480 hours * $49). The total cost for this task across the three years of this IC is **$70,560**. The Stage 2 applications are only reviewed once for each of the three cohorts covered by this ICR.

Grant Agreement:

We estimate that the average grade level of the reviewers is GS-12/step 5, paid at $49 per hour. We expect to negotiate 40 Stage 1 grant agreements, with each one requiring approximately 15 person hours to request information, to draft the grant agreements, and to ensure their execution. As a result, the annual cost to the federal Government is **$29,400** (15 hours x 40 grants = 600 hours x $49 = $29,400). The Stage 2 grant agreements are anticipated to require about 25 hours of staff time for each grant (i.e., to execute the agreement, process any modifications, as needed, etc.), for an annual total of **$39,200** (20 hours x 40 grants = 800 hours x $49 = $39,200). The total cost of the Stage 1 grant agreements for this IC (i.e., for all cohorts) is estimated to be $**88,200** (($29,400*3 cohorts), and the total cost for the Stage 2 grant agreements is **$117,600** ($39,200*3 cohorts)). The grand total for the grant agreement phase for this IC (all cohorts) is $205,800 ($88,200 + $117,600).

Project Management:

Individuals managing projects throughout USDOT and the Modal Administrations vary from GS-9 to GS-14; however, in looking at the averages it can take a GS-12/step 5 (average salary, $49 per hour) about 2 person hours per Quarterly Progress Report to review it. Given 4 quarterly reports are submitted per grantee per year, and there are 40 grants per year, the total number of Quarterly Progress Reports delivered annually is 160 (4*40), and the total number of annual hours spent reviewing Quarterly Progress Reports is 320 person hours (2 person hours*160 Reports). The annual cost to the federal Government is $**15,680** (320 person hours* $49/Hour). The total cost for reviewing the Quarterly Progress Reports of the first cohort is $47,040 ($15,680*3 years). The total cost for all three cohorts is **$94,080** (the Year 2 cohort will deliver 2

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[3] The burden for the Final Implementation Report is not shown here because over the three year period of this IC, there will not be any projects submitting a Final Report.

years of Quarterly Progress Reports and the Year 3 cohort will deliver only 1 year of Quarterly Progress Reports).

Project Evaluation:

Grantee Draft and Final Evaluation Plans and Data Management Plans are submitted electronically to USDOT via email. These plans may be reviewed by several different Federal staff and written feedback will be provided to the grantee. USDOT estimates that on average, it will take 12 person hours at the GS-12/step 5 level for each evaluation plan (inclusive of draft and final) and 8 person hours for the Data Management Plan (inclusive of Draft and Final), for a total of 20 hours. Given there are 40 grants per year, the total annual cost to the Federal government of reviewing these two evaluation-related deliverables is **$23,520** for the Evaluation Plan (12 person hours*40 grants*$49), and **$15,680** for the Data Management Plans (8 person hours*40 grants*$49). These are one-time deliverables for each cohort. As a result, the grand total cost to the Federal Government for all three cohorts is **$70,560** for the Evaluation Plans ($23,520*3) and **$47,040** for the Data Management Plans ($15,680*3).

The Annual Implementation Reports are submitted annually by each cohort, and Federal staff will review them and provide written comments. USDOT estimates that on average, it will take 6 person hours at the GS-12/step 5 level for each Annual Implementation Report. Given there are 40 grants per year (i.e., per cohort), the total annual cost to the Federal government of reviewing these Annual Implementation Reports is **$11,760** (6 person hours*40 grants*$49). The total cost for reviewing the Implementation Reports of the first cohort is $35,280 ($11,760*3 years). The total cost for all three cohorts is **$70,560** (the Year 2 cohort will deliver 2 years of Annual Implementation Reports, and the Year 3 cohort will deliver only 1 year of Implementation Reports.

The total cost to Federal government for the first cohort is $229,320. Costs for subsequent cohorts (Year 2 and Year 3) are somewhat lower because they will not deliver as many Quarterly Progress Reports or Annual Implementation Reports.

The grand total cost to the Federal government (across the three cohorts) for the application, grant agreement, project, management, and project evaluation phases is $770,280.

15. Explanation of program changes or adjustments:

There are no program changes for this information collection; this is a new collection.

16. Publication of results of data collection:

The information provided by grantees in their Quarterly Progress Reports, Evaluation Plans, Data Management Plans, Annual Implementation Reports, and Final Implementation Report may be used to meet the reporting requirements, outlined in BIL (X), of the US DOT and the General Accountability Office (GAO). The US DOT must prepare a Report to Congress and a Best Practices Report (which is updated regularly), and the GAO must submit a review of the Program. These Reports will necessarily rely on data collected by the grant recipients.

17. Approval for not displaying the expiration date of OMB approval:

No such approval is being requested.

18. Exceptions to certification statement:

There are no exceptions to the certification statement.

EXHIBIT A: SMART GRANT PROGRAM CITATION IN BIPARTISAN INFRASTRUCTURE LAW
§ 25005; 23 U.S.C. 502(b).

SEC. 25005. STRENGTHENING MOBILITY AND REVOLUTIONIZING TRANSPORTATION GRANT PROGRAM.

a.   DEFINITIONS.—In this section:

1. ELIGIBLE ENTITY.—The term ''eligible entity'' means—
   A. a State;
   B. a political subdivision of a State;
   C. a Tribal government;
   D. a public transit agency or authority;
   E. a public toll authority;
   F. a metropolitan planning organization; and
   G. a group of 2 or more eligible entities described in any of subparagraphs (A) through (F) applying through a single lead applicant.

2. ELIGIBLE PROJECT.—The term ''eligible project'' means a project described in subsection (e).

3. LARGE COMMUNITY.—The term ''large community'' means a community with a population of not less than 400,000 individuals, as determined under the most recent annual esti- mate of the Bureau of the Census.

4. MIDSIZED COMMUNITY.—The term ''midsized community'' means any community that is not a large community or a rural community.

5. REGIONAL PARTNERSHIP.—The term ''regional partnership'' means a partnership composed of 2 or more eligible entities located in jurisdictions with a combined population that is equal to or greater than the population of any midsized community.

6. RURAL COMMUNITY.—The term ''rural community'' means a community that is located in an area that is outside of an urbanized area (as defined in section 5302 of title 49, United States Code).

7. SMART GRANT.—The term ''SMART grant'' means a grant provided to an eligible entity under the Strengthening Mobility and Revolutionizing Transportation Grant Program established under subsection (b).

b. ESTABLISHMENT OF PROGRAM.—The Secretary shall estab- lish a program, to be known as the ''Strengthening Mobility and Revolutionizing Transportation Grant Program'', under which the Secretary shall provide grants to eligible entities to conduct dem- onstration projects focused on advanced smart city or community technologies and systems in a variety of communities to improve transportation efficiency and safety.

c. DISTRIBUTION.—In determining the projects for which to provide a SMART grant, the Secretary shall consider contributions to geographical diversity among grant recipients, including the need for balancing the needs of rural communities, midsized commu- nities, and large communities, consistent with the requirements of subparagraphs (A) through (C) of subsection (g)(1).

d. APPLICATIONS.—

1. IN GENERAL.—An eligible entity may submit to the Secretary an application for a SMART grant at such time, in such manner, and containing such information as the Sec- retary may require.

2. TRANSPARENCY.—The Secretary shall include, in any notice of funding availability relating to SMART grants, a full description of the method by which applications under para- graph (1) will be evaluated.

3. SELECTION CRITERIA.—

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A. IN GENERAL.—The Secretary shall evaluate applications for SMART grants based on—
  i. the extent to which the eligible entity or applicable beneficiary community—
      I. has a public transportation system or other transit options capable of integration with other systems to improve mobility and efficiency;
      II. has a population density and transpor- tation needs conducive to demonstrating proposed strategies;
      III. has continuity of committed leadership and the functional capacity to carry out the pro- posed project;
      IV. is committed to open data sharing with the public; and
      V. is likely to successfully implement the proposed eligible project, including through technical and financial commitments from the public and private sectors; and
  ii. the extent to which a proposed eligible project will use advanced data, technology, and applications to provide significant benefits to a local area, a State, a region, or the United States, including the extent to which the proposed eligible project will—
      I. reduce congestion and delays for commerce and the traveling public;
      II. improve the safety and integration of transportation facilities and systems for pedes- trians, bicyclists, and the broader traveling public;
      III. improve access to jobs, education, and essential services, including health care;
      IV. connect or expand access for underserved or disadvantaged populations and reduce transportation costs;
      V. contribute to medium- and long-term economic competitiveness;
      VI. improve the reliability of existing transportation facilities and systems;
      VII. promote connectivity between and among connected vehicles, roadway infrastructure, pedes- trians, bicyclists, the public, and transportation systems
      VIII. incentivize private sector investments or partnerships, including by working with mobile and fixed telecommunication service providers, to the extent practicable;
      IX. improve energy efficiency or reduce pollution;
      X. increase the resiliency of the transpor- tation system; and
      XI. improve emergency response.
B. PRIORITY.—In providing SMART grants, the Sec- retary shall give priority to applications for eligible projects that would—
  i. demonstrate smart city or community technologies in repeatable ways that can rapidly be scaled;
  ii. encourage public and private sharing of data and best practices;
  iii. encourage private-sector innovation by promoting industry- driven technology standards, open platforms, technology- neutral requirements, and inter- operability;

       iv.   promote a skilled workforce that is inclusive of minority or disadvantaged groups;

       v.   allow for the measurement and validation of the cost savings and performance improvements associated with the installation and use of smart city or community technologies and practices;

      vi.   encourage the adoption of smart city or community technologies by communities;

    vii.   promote industry practices regarding cybersecurity; and

   viii.   safeguard individual privacy.

4. TECHNICAL ASSISTANCE.—On request of an eligible entity that submitted an application under paragraph (1) with respect to a project that is not selected for a SMART grant, the Secretary shall provide to the eligible entity technical assistance and briefings relating to the project.

e. USE OF GRANT FUNDS.—

1. ELIGIBLE PROJECTS.—

A. IN GENERAL.—A SMART grant may be used to carry out a project that demonstrates at least 1 of the following:

     i.   COORDINATED AUTOMATION.—The use of auto- mated transportation and autonomous vehicles, while working to minimize the impact on the accessibility of any other user group or mode of travel.

    ii.   CONNECTED VEHICLES.—Vehicles that send and receive information regarding vehicle movements in the network and use vehicle-to-vehicle and vehicle- to-everything communications to provide advanced and reliable connectivity.

   iii.   INTELLIGENT, SENSOR-BASED INFRASTRUC- TURE.—The deployment and use of a collective intelligent infrastructure that allows sensors to collect and report real-time data to inform everyday transpor- tation-related operations and performance.

   iv.   SYSTEMS INTEGRATION.—The integration of intelligent transportation systems with other existing systems and other advanced transportation technologies.

    v.   COMMERCE DELIVERY AND LOGISTICS.—Innovative data and technological solutions supporting efficient goods movement, such as connected vehicle probe data, road weather data, or global positioning data to improve on-time pickup and delivery, improved travel time reliability, reduced fuel consumption and emissions, and reduced labor and vehicle maintenance costs.

   vi.   LEVERAGING USE OF INNOVATIVE AVIATION TECHNOLOGY.—Leveraging the use of innovative aviation technologies, such as unmanned aircraft systems, to support transportation safety and efficiencies, including traffic monitoring and infrastructure inspection.

   vii.   SMART GRID.—Development of a programmable and efficient energy transmission and distribution system to support the adoption or expansion of energy capture, electric vehicle deployment, or freight or commercial fleet fuel efficiency.

        viii. SMART TECHNOLOGY TRAFFIC SIGNALS.— Improving the active management and functioning of traffic signals, including through—

           I. the use of automated traffic signal performance measures;

           II. implementing strategies, activities, and projects that support active management of traffic signal operations, including through optimization of corridor timing, improved vehicle, pedestrian, and bicycle detection at traffic signals, or the use of connected vehicle technologies;

           III. replacing outdated traffic signals; or

           IV. for an eligible entity serving a population of less than 500,000, paying the costs of temporary staffing hours dedicated to updating traffic signal technology.

2. ELIGIBLE PROJECT COSTS.—A SMART grant may be used for—

    A. development phase activities, including—

      i. planning;

      ii. feasibility analyses;

      iii. revenue forecasting;

      iv. environmental review;

      v. permitting;

      vi. preliminary engineering and design work;

      vii. systems development or information technology work; and

      viii. acquisition of real property (including land and improvements to land relating to an eligible project); and

    B. construction phase activities, including—

      i. construction;

      ii. reconstruction;

      iii. rehabilitation;

      iv. replacement;

      v. environmental mitigation;

      vi. construction contingencies; and

      vii. acquisition of equipment, including vehicles.

3. PROHIBITED USES.—A SMART grant shall not be used—

    A. to reimburse any preaward costs or application preparation costs of the SMART grant application;

    B. for any traffic or parking enforcement activity; or

    C. to purchase or lease a license plate reader.

f. REPORTS.—

1. ELIGIBLE ENTITIES.—Not later than 2 years after the date on which an eligible entity receives a SMART grant, and annually thereafter until the date on which the SMART grant is expended, the eligible entity shall submit to the Sec- retary an implementation report that describes—

    A. the deployment and operational costs of each eligible project carried out by the eligible entity, as com- pared to the benefits and savings from the eligible project; and

    B. the means by which each eligible project carried out by the eligible entity has met the original expectation, as projected in the SMART grant application, including—

      i. data describing the means by which the eligible project met the specific goals for the project, such as—

        I. reducing traffic-related fatalities and injuries;

       II. reducing traffic congestion or improving travel-time reliability;

     III. providing the public with access to real- time integrated traffic, transit, and multimodal transportation information to make informed travel decisions; or

     IV. reducing barriers or improving access to jobs, education, or various essential services;

       ii. the effectiveness of providing to the public real- time integrated traffic, transit, and multimodal transportation information to make informed travel decisions; and

     iii. lessons learned and recommendations for future deployment strategies to optimize transportation efficiency and multimodal system performance.

2. GAO.—Not later than 4 years after the date of enactment of this Act, the Comptroller General of the United States shall conduct, and submit to the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Energy and Commerce of the House of Representatives, and the Committee on Transportation and Infrastructure of the House of Representatives a report describing the results of, a review of the SMART grant program under this section.

3. SECRETARY.—

   A. REPORT TO CONGRESS.—Not later than 2 years after the date on which the initial SMART grants are provided under this section, the Secretary shall submit to the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Energy and Commerce of the House of Representatives, and the Committee on Transpor- tation and Infrastructure of the House of Representatives a report that—

     i. describes each eligible entity that received a SMART grant;

     ii. identifies the amount of each SMART grant provided;

     iii. summarizes the intended uses of each SMART grant;

     iv. describes the effectiveness of eligible entities in meeting the goals described in the SMART grant application of the eligible entity, including an assessment or measurement of the realized improvements or benefits resulting from each SMART grant; and

     v. describes lessons learned and recommendations for future deployment strategies to optimize transpor- tation efficiency and multimodal system performance.

   B. BEST PRACTICES.—The Secretary shall—

     i. develop and regularly update best practices based on, among other information, the data, lessons learned, and feedback from eligible entities that received SMART grants;

     ii. publish the best practices under clause (i) on a publicly available website; and

     iii. update the best practices published on the website under clause (ii) regularly.

g.   AUTHORIZATION OF APPROPRIATIONS.—

1. IN GENERAL.—There is authorized to be appropriated to the Secretary $100,000,000 for each of the first 5 fiscal years beginning after the date of enactment of this Act, of which—
    A. not more than 40 percent shall be used to provide SMART grants for eligible projects that primarily benefit large communities;
    B. not more than 30 percent shall be provided for eligible projects that primarily benefit midsized commu- nities; and
    C. not more than 30 percent shall be used to provide SMART grants for eligible projects that primarily benefit rural communities or regional partnerships.
2. ADMINISTRATIVE COSTS.—Of the amounts made avail- able under paragraph (1) for each fiscal year, not more than 2 percent shall be used for administrative costs of the Secretary in carrying out this section.
3. LIMITATION.—An eligible entity may not use more than 3 percent of the amount of a SMART grant for each fiscal year to achieve compliance with applicable planning and reporting requirements.
4. AVAILABILITY.—The amounts made available for a fiscal year pursuant to this subsection shall be available for obligation during the 2-fiscal- year period beginning on the first day of the fiscal year for which the amounts were appropriated.

Exhibit B (APPLICATION PROCESS): APPLICATION AND SUBMISSION INFORMATION

1. Address to Request Application Package

All grant application materials can be accessed at grants.gov under the Notice of Funding Opportunity Number XXXXXXX. Applicants must submit their applications via U.S. DOT's automated proposal website *(Insert URL when established)*. Potential applicants may also request paper copies of materials at:

Telephone: (202)-366-4114

Mail: U.S. Department of Transportation
1200 New Jersey Avenue SE
W84-322
Washington, DC 20590

2. Content and Form of Application Submission

The application must include the following: Standard Forms; Key Information Questions; Project Narrative and Summary Budget Narrative. This information must be submitted via the U.S. DOT's automated proposal website *(Insert URL when established)*. More detailed information about each application material is provided below.

   i.   **Standard Forms:** All applicants must submit the following Standard Forms (SF): Standard Form 424 (Application for Federal Assistance), Budget Information for Non-Construction Programs (SF-424A), Assurances for Non-Construction Programs (SF-424B).
   ii. **Key Information Questions:** This is a preview list of the questions that are asked on U.S. DOT's automated proposal website (Insert URL when established). After registering in the system, the applicant will be prompted to answer these questions on the website.

Title	Instructions
Project Name	Enter a concise, descriptive title for the project. This should be the same title used in the Grants.gov SF-424 submission and the application narrative.
Eligible Entity Type	Indicate the eligible entity type for your application: A. a State; B. a political subdivision of a State; C. a Federally recognized Tribal government; D. a public transit agency or authority; E. a public toll authority; F. a metropolitan planning organization; G. A group application of 2 or more eligible entities described in (A) through (F); or a collaborative application of 2 or more eligible entities described

	in (A) through (F).
Was an application for USDOT discretionary grant funding or other federal programs previously submitted for this project?	(If yes, please include project title and applicable grant programs)
Was a similar application submitted, or will a similar application be submitted for funding for this project under FHWA's ATTAIN (previously ATCMTD) program?	(If yes, please include project title of similar grant application)
Was federal funding previously received for this project?	(If yes, indicate the amount of federal funding received and the grant number where the funds were requested.)
Is this a group application, through a single, lead-applicant?	(If yes, please provide organizational name(s) of sub-recipient(s) that will receive funds and other key partners.)
Is this a collaborative application, with each applicant applying separately?	(If Yes, please indicate the organization name(s) of the other eligible applicant(s) you are collaborating with.)
Brief Project Description	Describe the project in plain language, using no more than 100 words. Please do not describe the project's benefits, background, or alignment with the selection criteria in this description field. A longer, narrative description will be provided in the Project Narrative. The Brief Project Description of successful applicant may be published by U.S. DOT and, therefore, must not contain classified or proprietary information
Project Location	
Project Location	Indicate the primary location the project will take place. If more than one location, please list additional locations in the next question.
Additional Project Locations	Identify additional project locations separated by a comma.
Community Size	Indicate the size of the community (large community; midsized community; regional partnership; or rural community.[1]) that your project primarily benefits.
Project Location Primary	Identify the anticipated census tract number(s) of the planned

Census Tract	project.
Other Project Census Tracts	Identify census tract information for other anticipated areas of the planned project location.
Is the project located (entirely or partially) in an Economically Disadvantaged Community? (Definition provided in section H)	List qualifying census tracts within these areas. (https://datahub.transportation.gov/stories/s/tsyd-k6ij) Also provide a screenshot of the location of the proposed project using DOT's mapping tool for Historically Disadvantaged Communities (https://usdot.maps.arcgis.com/apps/dashboards/d6f90dfcc8b44525 b04c7ce748a3674a). For technical assistance using the mapping tool, please contact GMO@dot.gov.
Project Costs & Timeline	
Amount Requested	Total Dollar Amount Requested
Proposed Duration of Stage 1 Project	May be up to 18 months
Project Specific Questions	

Demonstration area(s)	Indicate <u>one or more</u> of the following demonstration areas that your project aligns with:
	
	    A. coordinated automation;
	    B. connected vehicles;
	    C. intelligent, sensor-based infrastructure;
	    D. systems integration;
	    E. commerce delivery and logistic;
	    F. leveraging use of innovative aviation technology;
	    G. smart grid; or
	    H. smart technology traffic signals
	
	Note that applications are not scored on the number of demonstration areas indicated, so it is important to only select the area(s) that your project aligns with.

Does this project relate to traffic or parking enforcement; or license plate reader activities?	Indicate "Yes" or "No." Note that SMART grants shall <u>not</u> be used for any traffic or parking enforcement activity or to purchase or lease a license plate reader.

Is a waiver or special permission required to conduct the proposed project?	(If yes, indicate the waiver or special permission obtained)

3. **Project Narrative:**

The primary purpose of the Narrative is for the applicant to state their case for meeting the merit criteria laid out in Section E. The Narrative should not exceed 5 pages. The Narrative should be in PDF format, with font size of no less than 12-point Times New Roman, single spaced, minimum 1-inch margins on all sides, and page numbers.

    i.   Overview/Project Description

This section should provide a clear, concise description of the project and the proposed technology deployment and the real-world issues and challenges to be addressed by project. Applicants should also discuss how the proposed technology deployments address the goals of the SMART program and any applicable technology areas. A description of how the project plans to improve upon the status quo, what brief description of the anticipated benefits are and who or what communities will benefit is also required.

    ii.   Project Location

This section should provide a description of the geographic area or jurisdiction the deployment will service, including whether or not the area in question is considered a large, midsized or rural community, whether or not the applicant is a regional partnership and to what extent the project Is located (entirely or partially) in an Economically Disadvantaged Community. Note that while applicants are asked to provide exact locations for each project in the key information table above, if selected for an award, the exact location may be adjusted during the Stage 1 planning process; therefore this section should explain and identify which geographic locations are under consideration for projects to be implemented and what analysis will be used in a final determination. Refer to Section D.2.ii of the Notice to provide specific location data.

    iii.   Technical Merit Selection Criteria

This section should respond to the criteria for evaluation and selection in Section E.1.i of this Notice and include a compelling narrative to highlight how the application aligns with the following Technical Merit criteria:

- Identification and Understanding of the Problem to Be Solved
- Appropriateness of Proposed Solution
- Expected Benefits

    iv.   Project Readiness Evaluation Criteria

This section should respond to the criteria for evaluation and selection in Section E.1.ii of this Notice and include a compelling narrative to highlight how the application aligns with the following Project Readiness criteria:

- Feasibility of Workplan
- Community Engagement and Partnerships
- Leadership and Qualifications

4. Summary Budget Narrative

The Applicant shall provide a summary budget narrative that corresponds to and describes information contained in the applicant's SF424A.   The narrative should describe all of the planned project costs for Stage 1 (i.e., direct labor, travel, equipment, supplies, contractual, construction, & other) and how these planned costs are connected to the project scope. The summary budget narrative must be sufficiently clear, concise, and detailed to describe how funds will be spent under the project.

[1] A "large community'' means a community with a population of not less than 400,000 individuals, as determined under the most recent annual estimate of the Bureau of the Census. A ``midsized community'' means any community that is not a large community or a rural community. A ``regional partnership'' means a partnership composed of 2 or more eligible entities located in jurisdictions with a combined population that is equal to or greater than the population of any midsized community. A ``rural community'' means a community that is located in an area that is outside of an urbanized area (as defined in section 5302 of title 49, United States Code which defines "rural" as a community with a population of less than 50,000 individuals).

[2] Please note that SMART grants shall not be used reimburse any preaward costs or application preparation costs of the SMART grant application.

5. Unique entity identifier and System for Award Management (SAM)

Each applicant is required to: (i) be registered in SAM (https://sam.gov/content/home) before submitting its application; (ii) provide a valid unique entity identifier in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency. DOT may not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant has not fully complied with the requirements by the time DOT is ready to make an award, DOT may determine that the applicant is not qualified to receive an award and use that determination as a basis for making an award to another applicant.

6. Submission Dates and Times

Applications must be submitted by 5:00 PM EDT on Friday, November 18, 2022.

7. Funding Restrictions

Per BIL requirements, of the ==funds awarded each fiscal year== for the SMART Grants Program, not more than 40 percent shall be used to provide SMART grants for eligible projects that primarily benefit large communities; not more than 30 percent shall be provided for eligible projects that primarily benefit midsized communities; and not more than 30 percent shall be used to provide SMART grants for eligible projects that primarily benefit rural communities or regional partnerships.

In addition, an eligible entity may not use more than 3 percent of the amount of a SMART grant for each fiscal year to achieve compliance with applicable planning and reporting requirements.

8. Other Submission Requirements

The format of the Section D.2 application submission should be in PDF format, with font size no less than 12-point Times New Roman, margins a minimum of 1 inch on all sides, and include page numbers.

The complete application must be submitted via U.S. DOT's online submission proposal system *(Insert URL when established)*.

Exhibit C (PROJECT EVALUATION PHASE): Evaluation Plan Guidance for SMART Grant Recipients

USDOT will provide SMART Grant recipients with guidance on the type of information that should be included in their Evaluation Plans. The following tables highlights the type of guidance that will be provided.

Evaluation Plan Topics
Project Overview   *Describe the project and highlight the technologies being deployed*   *List the project stakeholders (project team, partners, evaluation team) and describe roles and responsibilities, particularly with respect to completing the evaluation*   *Summarize what constitutes end-of-project successes*   *Provide a deployment and evaluation schedule in terms of months and years; include project milestones*
Evaluation Goals/Objectives and Evaluation Questions   *Describe project evaluation goals and/or objectives and associated evaluation questions (or hypotheses)*   *Develop at least one evaluation question for each goal or objective; multiple specific, evaluation questions are better than a few general ones*
Performance Measures (PMs) (see Table 2)   *Identify one or more outcome based performance measure(s) for **each** evaluation question*   *Ensure (describe how) you are meeting the performance measures prescribed in BIL.*   *Develop system performance measures that measure whether the technology is functioning as intended (i.e. to verify the functionality of the technology).*   *Ensure (describe how) your PMs are measurable within the scope of the evaluation. If targets are described, ensure they are appropriate*   *Think about the unit of analysis (metric) needed for your analysis and the geographic scope.*   *Describe the data sources for each PM (include existing data sources as well as primary data collection). If your agency is uncertain about the data sources or elements, indicate what data you would need to measure the PMs and note that updates to the plan will include more details on "X".*
Evaluation Methodology (see Table 2 below)   *Describe the method(s) that will be used to address each evaluation question (likely a mix of quantitative and qualitative methods)*   *Describe the experimental design, as appropriate (before-after; treatment-control)*   *Describe potential confounding factors*   *Ensure the evaluation design enables the measurement of the proposed PMs; identify the specific data elements that are required*   *Describe any limitations or risks associated with the method or the data elements*   *If multiple technologies are deployed, be clear how the different technologies will be evaluated; consider organizing the evaluation plan by "Use Cases.".*
Data Collection Procedures and Data Management   *Describe how the data will be collected, including any plans for a pilot*   *For example, for surveys, plan should include: general method of recruitment; sample size; potential survey topics*   *For field studies, plan should include: location, data collection frequency, data collection period*   *Address data management (e.g., data logging and transmission to the evaluation team (if applicable); data storage; data access and privacy protection; data fusion (if applicable), data quality checks, etc.) [note: for existing systems, less detail may be needed]*

EXHIBIT D (PROJECT EVALUATION PHASE): Data Management Plan Guidance for SMART Grant Recipients

USDOT will utilize the guidance on Data Management Plans developed by the Bureau of Transportation Statistics[4]. This guidance is excerpted below.

Data Management Plans (DMPs) Content Overview

A data management plan (DMP) describes how researchers will handle digital data both during and after a research project. DMPs will describe how the research proposal conforms to DOT policy on the dissemination and sharing of research results. Each plan should include a 2-3 page narrative description covering:

- The final research data to be produced in the course of the project;
- The standards to be used for data and metadata format and content;
- Policies for access and sharing the final research data, including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, and other rights or requirements;
- Policies and provisions for re-use, re-distribution, and the production of derivatives; and
- Plans for archiving final research data and other research products, and for preservation of access to them.

DOT-funded research projects are expected to be conducted pursuant to the approved DMP. A DMP may evolve as the research project evolves and should be reviewed for possible revision whenever a data management procedure is changed.

Guidance on DMP Sections

Data Description: Provide a description of the data that you will be gathering in the course of your project. Address the nature, scope, and scale of the data that will be collected. Describe the characteristics of the data, their relationship to other data, and provide sufficient detail so that reviewers will understand any disclosure risks that may apply. Discuss value of the data over the long-term.

As general guidance you may consider addressing the following:

1. Name the data, data collection project, or data producing program.
2. Describe the purpose of the research.
3. Describe the data that will be generated in terms of nature and scale (e.g., numerical data, image data, text sequences, video, audio, database, modeling data, source code, etc.).
4. Describe methods for creating the data (e.g., simulated; observed; experimental; software; physical collections; sensors; satellite; enforcement activities; researcher-generated databases, tables, and/or spreadsheets; instrument generated digital data output such as images and video; etc).
5. Discuss the period of time data will be collected and frequency of update.
6. If using existing data, describe the relationship between the data you are collecting and existing data.
7. List potential users of the data.
8. Discuss the potential value of the data have over the long-term for not only your institution, but also for the public.

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[4] United States. Department of Transportation. (2022). Creating Data Management Plans for Extramural Research. https://doi.org/10.21949/1520571

9. If you request permission not to make data publicly accessible, explain rationale for lack of public access.
10. Indicate the party responsible for managing the data.
11. Describe how you will check for adherence to this data management plan.

Standards Used: Describe the anticipated formats that your data and related files will use. To the maximum extent practicable, and in accordance with generally accepted practices in your field, your DMP should address how you will use platform-independent and non-proprietary formats to ensure maximum utility of the data in the future. If you are unable to use platform-independent and non-proprietary formats, you should specify the standards and formats that will be used and the rationale for using those standards and formats. Identify the metadata standards you will use to describe the data.

As general guidance you may consider addressing the following:

1. List in what format(s) the data will be collected. Indicate if they are open or proprietary.
2. If you are using proprietary data formats, discuss your rationale for using those standards and formats.
3. Describe how versions of data be signified and/or controlled.
4. If the file format(s) you are using is(are) not standard to your field, describe how you will document the alternative you are using.
5. List what documentation you will be creating in order to make the data understandable by other researchers.
6. Indicate what metadata schema you are using to describe the data. If the metadata schema is not one standard for your field, discuss your rationale for using that scheme.
7. Describe how will the metadata be managed and stored.
8. Indicate what tools or software is required to read or view the data.
9. Describe your quality control measures.

Access Policies: Describe any access restrictions that may apply to your data. In general, data from research projects funded wholly or in part by U.S. DOT must be made publicly accessible. Exceptions to this policy are data that contain personally identifiable information, confidential business information, or classified information.

Protecting research participants and guarding against the disclosure of identities and/or confidential business information is an essential norm in scientific research. Your DMP should address these issues and outline the efforts you will take to provide informed consent statements to participants, the steps you will take the protect privacy and confidentiality prior to archiving your data, and any additional concerns (e.g., embargo periods for your data). If necessary, describe any division of responsibilities for stewarding and protecting the data among Principal Investigators or other project staff.

If you will not be able to deidentify the data in a manner that protects privacy and confidentiality while maintaining the utility of the dataset, you should describe the necessary restrictions on access and use. In general, in matters of human subject research, your DMP should describe how your informed consent forms will permit sharing with the research community and whether additional steps, such as an Institutional Review Board (IRB), may be used to protect privacy and confidentiality.

As general guidance you may consider addressing the following:

1. Describe what data will be publicly shared, how data files will be shared, and how others will access them.
2. Indicate whether the data contain private or confidential information. If so:

o Discuss how will you guard against disclosure of identities and/or confidential business information.
o List what processes you will follow to provide informed consent to participants.
o State the party responsible for protecting the data.
3. Describe what, if any, privacy, ethical, or confidentiality concerns are raised due to data sharing.
4. If applicable, describe how you will deidentify your data before sharing. If not:
    o Identify what restrictions on access and use you will place on the data.
    o Discuss additional steps, if any you will use to protect privacy and confidentiality.

Re-Use, Redistribution, and Derivative Products Policies: Describe who will hold the intellectual property rights for the data created by your project. Describe whether you will transfer those rights to a data archive, if appropriate. Identify whether any copyrights apply to the data, as might be the case when using copyrighted instruments. If you will be enforcing terms of use or a requirement for data citation through a license, indicate as much in your DMP. Describe any other legal requirements that might need to be addressed.

As general guidance you may consider addressing the following:

1. Name who has the right to manage the data.
2. Indicate who holds the intellectual property rights to the data.
3. List any copyrights to the data. If so, indicate who owns them.
4. Discuss any rights be transferred to a data archive.
5. Describe how your data will be licensed for reuse, redistribution, and derivative products.

Archiving and Preservation Plans: Describe how you intend to archive your data and why you have chosen that particular option. You may select from a variety of options including, but not limited to:

- Use of an institutional repository
- Use of an archive or other community-accepted data storage facility
- Self-dissemination

You must describe the dataset that is being archived with a minimum amount of metadata that ensures its discoverability. Whatever archive option you choose, that archive must support the capture and provision of the US Federal Government Project Open Data Metadata Schema. In addition, the archive you choose must support the creation and maintenance of persistent identifiers (e.g., DOIs, handles, etc.) and must provide for maintenance of those identifiers throughout the preservation lifecycle of the data. Your plan should address how your archiving and preservation choices meet these requirements.

As general guidance you may consider addressing the following:

1. Discuss how you intend to archive your data and where (include URL).
2. Indicate the approximate time period between data collection and submission to the archive.
3. Identify where data will be stored prior to being sent to an archive. You should also:
4. Describe how back-up, disaster recovery, off-site data storage, and other redundant storage strategies will be used to ensure the data's security and integrity.
5. Describe how data will be protected from accidental or malicious modification or deletion prior to receipt by the archive.
6. Discuss your chosen data archive's policies and practices for back-up, disaster recovery, off-site data storage, and other redundant storage strategies to ensure the data's security and integrity for the long-term.

7. Indicate how long the chosen archive will retain the data.
8. Indicate if the chosen archive employs, or allows for the recording of, persistent identifiers linked to the data.
9. Discuss how your chosen data repository meets the criteria outlined on the [Guidelines for Evaluating Repositories for Conformance with the DOT Public Access Plan](#) page.

Example Data Management Plans

Example US DOT Public Access Plan Data Management Plans from various institutions can be found in the [US DOT Public Access Data Management Plans](#) collection.

EXHIBIT E (PROJECT EVALUATION PHASE): Annual Implementation Report Guidance for SMART Grant Recipients

Annual Implementation Reports

Project Overview (All Reports)
    • *Describe the project and highlight the technologies being deployed (if multiple technologies are being deployed, this may be organized as "use cases")*
    • *Summarize what constitutes end-of-project successes*

Evaluation Goals/Objectives, Evaluation Questions, Performance Measures (All Reports)
    • *Describe project evaluation goals and/or objectives and associated evaluation questions (or hypotheses) and performance measures*
    • *The inclusion of a table that demonstrates how these elements map to one another is strongly recommended (in addition to explanatory text).*

Elements Specific to Stage 1 Reporting
    • Describe anticipated costs and benefits of the project, including:
        o data on the performance metrics for the proof-of-concept or prototype;
        o preliminary baseline data for an evaluation of at scale implementation;
        o a detailed description of the community that would be impacted by at scale implementation and the anticipated distribution of benefits; and
        o quantitative data to substantiate key assumptions.
    • Demonstrate the feasibility of at scale implementation, including identified strategies or demonstrated progress in addressing the following implementation feasibility and readiness factors by the end of the Stage 2 Grant.
        o **Legal, Policy, and Regulatory Requirements** (e.g., environmental permits and reviews; public outreach; State and local approvals; equity and accessibility requirements)
        o **Procurement & Budget** (e.g., availability of suppliers and equipment; Buy America requirements; reliability of cost estimates; critical property acquisition)
        o **Partnerships** (e.g., MOUs for stakeholder coordination; private sector and user adoption and acceptance)
        o **Technology Availability** (e.g., systems engineering including ConOps and Detailed Design; maturity of technology; compatibility with existing infrastructure)
        o **Data Governance** (e.g., storage capability; database analytic capability; integration requirements; sharing agreements; cybersecurity and privacy protocols)
        o **Workforce Capacity** (e.g., availability of workforce from development and installation to operations and maintenance; availability of workforce training; agency capacity for deployment, operation, and evaluation)
        o **Sustainability** (e.g., agency/institutional capacity for continued operations following the grant funded period; revenue needs for continued operations)
        o **Other Relevant Factors**

Elements Specific to Stage 2 Reporting
    • *Describe the evaluation method(s) and data sources used to measure the outcomes/impacts of the project*
    • *Describe whether the project is on track to meet its original expectations*
    • *Provide evaluation-related progress updates (e.g., is the grantee having any issues*

Annual Implementation Reports
with data collection). • Describe project challenges and lessons learned, including where resource gaps may exist.

Elements Specific to Final Implementation Report:
- Description of evaluation design, methods, data sources, and data collection period
    - Summary of any evaluation challenges and/or limitations
- Final assessment of the deployment and operational costs of the project, as compared to the benefits and savings;
- Final evaluation findings, including the extent to which the grantee met original expectations, as projected in the SMART grant application, related to their specific goals, such as (for example):
    - reducing traffic-related fatalities and injuries;
    - reducing traffic congestion or improving travel-time reliability;
    - effectiveness of providing the public with access to realtime integrated traffic, transit, and multimodal transportation information to make informed travel decisions;
    - reducing barriers or improving access to jobs, education, or various essential services;
- lessons learned and recommendations for future deployment strategies to optimize transportation efficiency and multimodal system performance.