Data Management Plan Template

[Insert Project Title]

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# Instructions

Please see the Data Management Plan Instructions document for detailed instructions on how to fill out this template.

Provide a Project Title and date in the red fields on the title page of this document. Fill out all sections and elements in the Data Management Plan (DMP) Template below. Samples of elements may be provided in italics below. Please delete these examples before submitting your DMP.

*\*The “Urban Connected Vehicle (CV) Demo” project and “Urban Institute of Transportation Planning (UITP)” are fictional and were created as an example for how to complete this document. Some of the information found in this template is adapted from Tampa CV Pilot’s DMP.*

# Project Overview

See Table 1 for a Project Overview details.

Table 1. Project Overview

| Project Tile | Project Goals and Objectives | Project Description | Project Lifecycle Phase | Performance Measurements |
| --- | --- | --- | --- | --- |
| Urban Connected Vehicle (CV) Demo\* | This research project is designed to determine what transportation safety, efficiency, cost reduction and other benefits can result from CV technology. This objective aligns with the U.S. DOT’s Intelligent Transportation Systems (ITS) Joint Program Office (JPO) mission to “[c]onduct research, development, and education activities to facilitate the adoption of information and communication technology to enable society to move more safely and efficiently.*[[1]](#footnote-1)*” | The Urban Institute of Transportation Planning (UITP) and its partners are featuring innovative connected vehicle technology in several urban areas across the country. A vehicle equipped with connected vehicle technology communicates wirelessly to other vehicles, traffic signals, crosswalks and other smart city technology. This wireless communication can prevent crashes, improve traffic flows and reduce travel times. | *Post-Award* | Planned performance measurements include improvements observed from mobility performance measures such as time at red lights, queue length, and average delay for auto mode. See the Performance Measurement and Evaluation Support Plan document for more details. |
| XX | XX | XX | XX | XX |
| XXX | XXX | XXX | XXX | XXX |

## Change Control

*<Insert>*

## Relevant Documents

*<Insert>*

# Data Overview

## See Table 2 for Data Overview details.

Table 2. Data Overview

| ID | | Dataset Title | Description | Type / Scale | | Collection Method | | Data File Format(s) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *ORCHID ID Number -* https://orcid.org/0000-0001-2345-6789 | Urban Connected Vehicle (CV) Demo *Basic Safety Message (BSM)* | | *This data consists of Basic Safety Messages (BSMs) generated by participant vehicles onboard units (OBU) and transmitted to road-side units (RSU) located throughout the Project Study areas.* | *Numerical data, text sequences, positional data (e.g. latitude and longitude)* | *Observed, experimental data automatically collected through OBUs and RSUs* | | *Newline json* | |
| XX | XX | | XX | XX | XX | | XX | |
| XXX | XXX | | XXX | XXX | XXX | | XXX | |

# Data Stewardship

## Data Owner and Steward

See Table 3 for Data Owner and Steward information.

Table 3. Data Owner and Steward

| Dataset Title | Data Owner | Data Steward | Federal Sponsor |
| --- | --- | --- | --- |
| *Urban Connected Vehicle (CV) Demo BSM* | *U.S. DOT* | Urban Institute of Transportation Planning (UITP) | Kate Hartman |
| XX | XX | XX |  |
| XXX | XXX | XXX |  |

## Access Level

### Can all data from this project be shared with the public or is controlled-access required for at least some of the data?

All Public Access  Some/All Controlled-Access

### Datasets Requiring Controlled-Access

*This section is required if “Some/All Controlled-Access” is selected above.*

*See Table 4 for Controlled-Access details and information.*

Table 4. Datasets Requiring Controlled-Access

| Dataset Title | Reason(s) for Controlled Access | | Safeguarding Methods and Processes | |
| --- | --- | --- | --- | --- |
| Urban Connected Vehicle (CV) Demo *BSM* | License plate images from the data are considered personally identifiable information (PII), and access to license plate numbers must be restricted to protect the confidentiality of car drivers. | The license plate images will be blurred before making the data accessible. The full dataset will be held in an ITS JPO secure data system (e.g. the Secure Data Commons), and a redacted version of the data with the blurred license plate images removed will be made publicly available. Sharing data containing the license plate images poses privacy and confidentiality concerns, as this information can be used to identify individuals, which is not the purpose of this research project and violates the privacy of the car drivers. | |
| XX | XX | XX | |

### Informed Consent

*<Insert>*

### Access Requests

*<Insert>*

### Related Tools, Software and/or Code

*<Insert>*

### Relevant Privacy and/or Security Agreements

*<Insert>*

## Re-Use, Redistribution, and Derivative Products Policies

*This section is required for* all *anticipated datasets of the project.*

*See Table 5 to enter dataset information.*

Table 5. Re-Use, Redistribution, and Derivative Products Policies

| Dataset Title | License Used | Reason(s) for Non-Open License |
| --- | --- | --- |
| *Urban Connected Vehicle (CV) Demo BSM* | [*Creative Commons Zero (CC0) 1.0 Universal*](https://creativecommons.org/publicdomain/zero/1.0/legalcode) | *N/A* |
| XX | XX | XX |
| XXX | XXX | XXX |

## Data Storage and Retention

See Table 6 for Data Storage and Retention details.

Table 6. Data Storage and Retention

| Data Storage System Name | Data Storage  System Type | Dataset Title(s) | Initial Storage Date | Frequency of Update | Archiving and Preservation Period |
| --- | --- | --- | --- | --- | --- |
| [*Data.transportation.gov*](https://data.transportation.gov/Automobiles/Tampa-CV-Pilot-Basic-Safety-Message-BSM-Sample/nm7w-nvbm/data) | *U.S. DOT-managed – Public System* | Urban Connected Vehicle (CV) Demo BSM | *Four months after award* | *Daily* | *Five years* |
| [*Secure Data Commons*](https://its.dot.gov/data/secure/) | *U.S. DOT-managed -Controlled-Access System* | *Urban Connected Vehicle (CV) Demo BSM* | *Four months after award* | *Daily* | *Five years* |
| XX | XX | XX | XX | XX | XX |

### Data Storage System and Description(s)

*<Insert>*

### Cybersecurity Policies

*<Insert>*

### Data Security Policies and Procedures

*<Insert>*

### Back-up and Recovery Policies and Procedures

*<Insert>*

# Data Standards

## Data Standards

*See Table 7 for Data Standards details and information.*

Table 7. Data Standards

| Dataset Title | Data Standard(s) | Data Standard(s) Digital Object Identifier(s) (DOI[s]) | Open or Proprietary? | Data Standard(s) Rationale |
| --- | --- | --- | --- | --- |
| Urban Connected Vehicle (CV) Demo *BSM* | *SAE J2735 and J2945/1* | [*https://doi.org/10.4271/J2735\_200911*](https://doi.org/10.4271/J2735_200911)  [*https://doi.org/10.4271/J2945/1\_201603*](https://doi.org/10.4271/J2945/1_201603) | *Proprietary* | *J2745 specifies a message set designed for use by applications using the 5.9 GHz Dedicated Short Range Communications for Wireless Access in Vehicular Environments (DSRC/WAVE), which will likely apply to these data.*  *J2945/1 is an industry standard for on-board vehicle-to-vehicle safety communications system for light vehicles, which applies to this project.* |
| XX | *XX* | *XX* | *XX* | *XX* |
| XXX | XXX | XXX | XXX | XXX |

## Versioning

*<Insert>*

## Metadata and Data Dictionary

*See Table 8 for Metadata and Data Dictionary definitions.*

Table 8. Metadata and Data Dictionary

| Dataset Title | Data Metadata Standards Used | Metadata Discoverable (Y/N) | Data Dictionary Discoverable (Y/N) | Metadata and Data Dictionary Access |
| --- | --- | --- | --- | --- |
| Urban Connected Vehicle (CV) Demo *BSM* | *Project Open Data* | *Y* | *Y* | *https://data.transportation.gov/Automobiles/Urban-CV-Pilot-Basic-Safety-Message-BSM-Sample/nm7w-nvbm* |
| XX | *XX* | *XX* | *XX* | *XX* |
| XXX | XXX | XXX | XXX | XXX |

### Metadata Description

*<Insert>*

# Glossary of Terms

*<Insert>*

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1. <https://www.its.dot.gov/about.htm> [↑](#footnote-ref-1)