Data Management Plan Template

[Insert Project Title]

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1. 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.

Chapter 1. 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"	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>

U.S. Department of Transportation
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Intelligent Transportation Systems Joint Program Office

¹ <u>https://www.its.dot.gov/about.htm</u>

Chapter 2. 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/00 00-0001-2345- 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

Chapter 3. 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 controlledaccess 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	<u>Creative Commons Zero (CC0) 1.0</u> <u>Universal</u>	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
<u>Data.transportation.</u> <u>gov</u>	U.S. DOT- managed – Public System	Urban Connected Vehicle (CV) Demo BSM	Four months after award	Daily	Five years
Secure Data Commons	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>

Chapter 4. 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 12725 and	https://doi.org/10.4271/J273 5_200911 https://doi.org/10.4271/J294 5/1_201603		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>

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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>

Chapter 5. Glossary of Terms

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