



U.S. Department of Transportation



U.S. DOT WORK ZONE DATA EXCHANGE (WZDX) DEMONSTRATION GRANTS WEBINAR

June 25, 2020

AGENDA

- Ground Rules and Logistics
- Executive Welcome
- Work Zone Data Exchange (WZDx) Overview
- Eligibility and Requirements
- Submission Requirements
- Dates and Reminders
- Questions

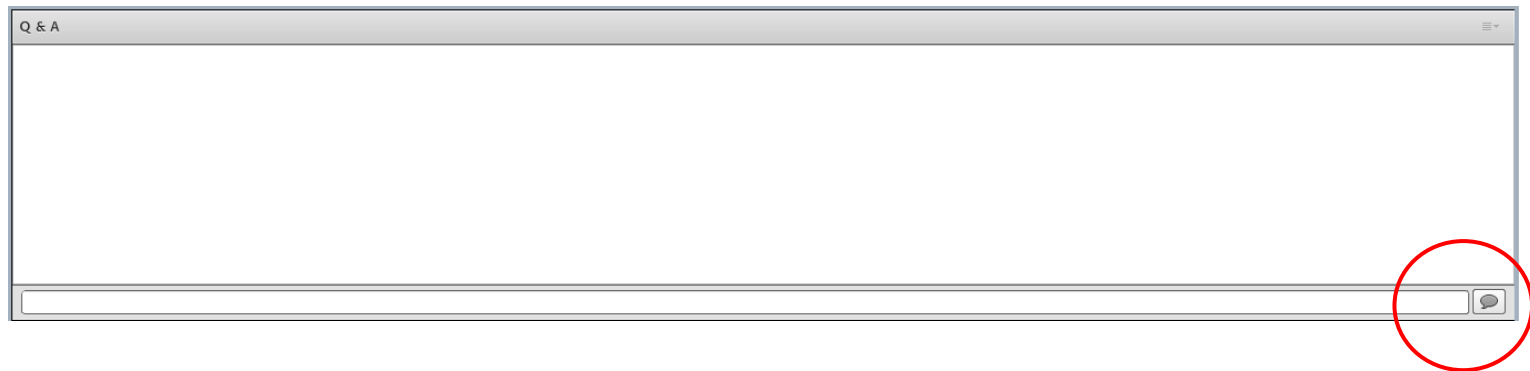
GROUND RULES AND LOGISTICS

GROUND RULES AND LOGISTICS

- This webinar is being recorded and will be posted to the USDOT website.
- Any statements or remarks made during the webinar shall not alter the terms of the solicitation.

SUBMITTING QUESTIONS

- Use **Q&A pod** on the bottom of your screen.
- *Questions will be addressed after the last presentation, as time permits.*



Type your question and hit “send question”.

EXECUTIVE WELCOME

Martin Knopp

Associate Administrator for Operations
Federal Highway Administration

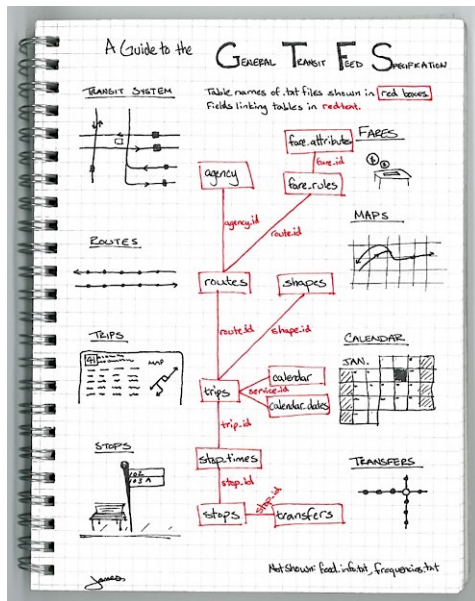
WZDX OVERVIEW

THE CHALLENGE

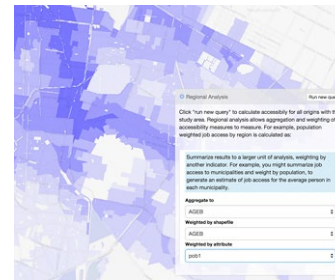
- Up-to-date information about dynamic conditions occurring on roads—such as construction events—can help automated driving systems (ADS) and humans navigate safely and efficiently.
- Many Infrastructure Owners and Operators (IOOs) maintain data on work zone activity. However, a lack of common data standards and convening mechanisms makes it difficult and costly for third parties—including original equipment manufacturers (OEMs) and navigation applications—to access and use these data sets across various jurisdictions.

LEARNING FROM OPEN TRANSIT DATA

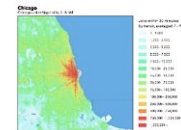
A simple specification...



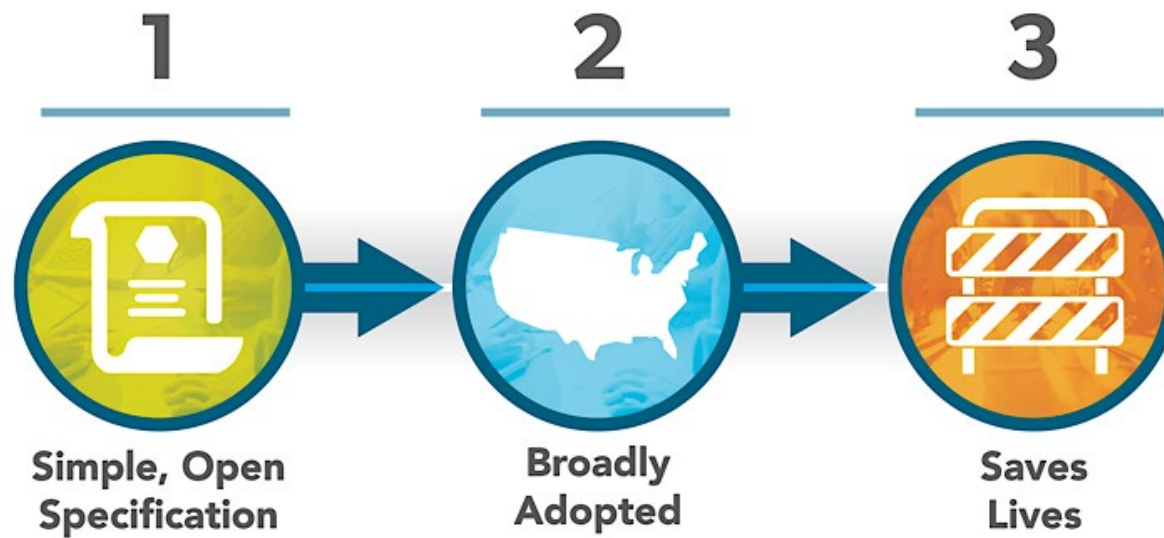
...with a wide range of uses



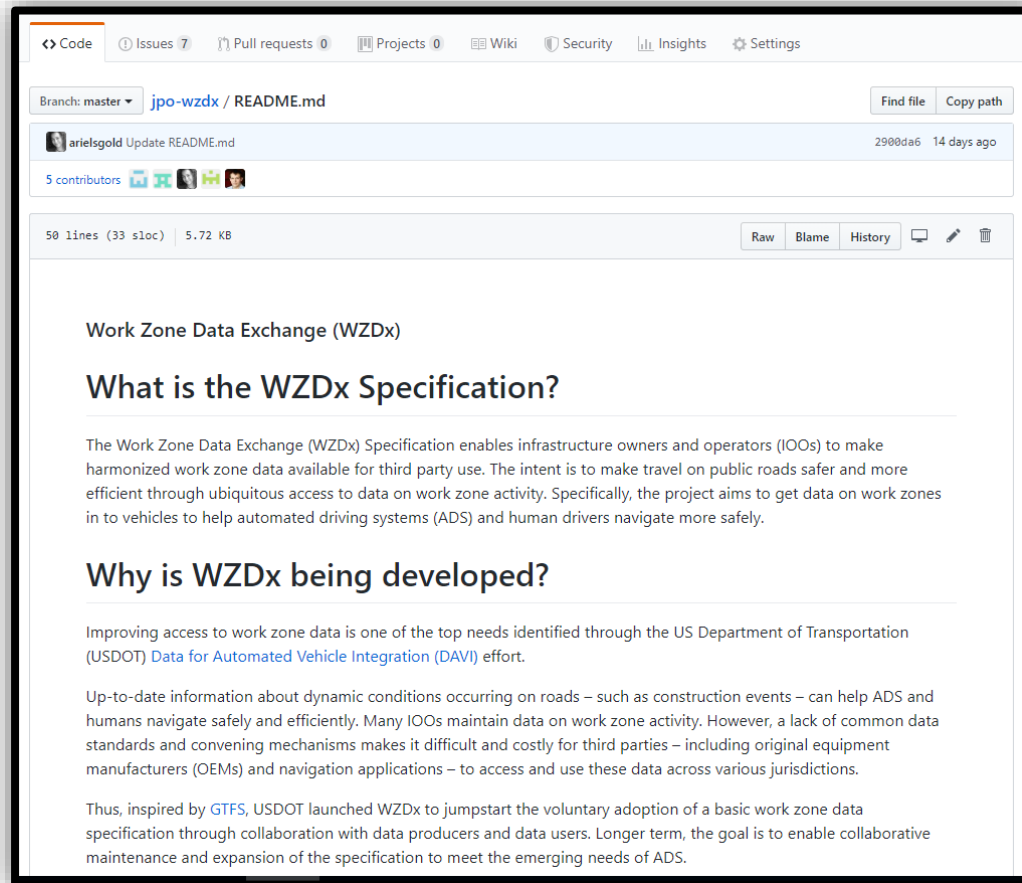
Line	Color	Route
306	Orange	Orange Line
307	Green	Green Line
308	Blue	Blue Line
309	Red	Red Line
310	Purple	Purple Line
311	Pink	Pink Line
312	Yellow	Yellow Line
313	Light Blue	Light Blue Line
314	Light Green	Light Green Line
315	Light Purple	Light Purple Line
316	Light Orange	Light Orange Line
317	Light Red	Light Red Line
318	Light Blue	Light Blue Line
319	Light Green	Light Green Line
320	Light Purple	Light Purple Line



THE WORK ZONE DATA EXCHANGE (WZDX)



THE WORK ZONE DATA WORKING GROUP



The screenshot shows a GitHub repository page for the 'jpo-wzdx' repository, specifically the 'README.md' file. The page is viewed on the 'master' branch. The file is 50 lines long, 33 sloc, and 5.72 KB. It was last updated by 'arielsgold' 14 days ago. The content of the README.md file is as follows:

Work Zone Data Exchange (WZDx)

What is the WZDx Specification?

The Work Zone Data Exchange (WZDx) Specification enables infrastructure owners and operators (IOOs) to make harmonized work zone data available for third party use. The intent is to make travel on public roads safer and more efficient through ubiquitous access to data on work zone activity. Specifically, the project aims to get data on work zones in to vehicles to help automated driving systems (ADS) and human drivers navigate more safely.

Why is WZDx being developed?

Improving access to work zone data is one of the top needs identified through the US Department of Transportation (USDOT) [Data for Automated Vehicle Integration \(DAVI\)](#) effort.

Up-to-date information about dynamic conditions occurring on roads – such as construction events – can help ADS and humans navigate safely and efficiently. Many IOOs maintain data on work zone activity. However, a lack of common data standards and convening mechanisms makes it difficult and costly for third parties – including original equipment manufacturers (OEMs) and navigation applications – to access and use these data across various jurisdictions.

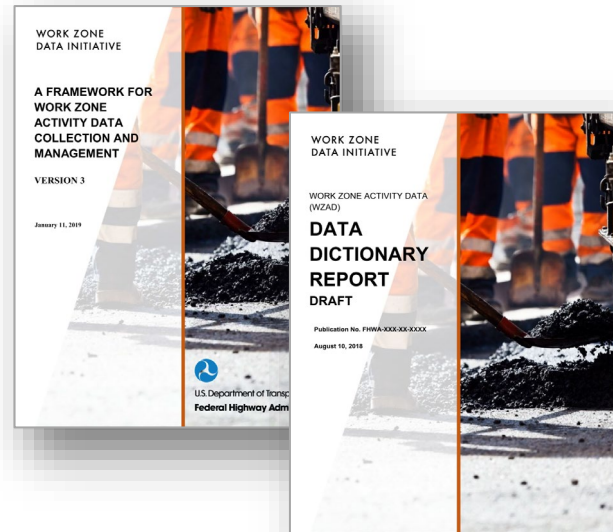
Thus, inspired by [GTFS](#), USDOT launched WZDx to jumpstart the voluntary adoption of a basic work zone data specification through collaboration with data producers and data users. Longer term, the goal is to enable collaborative maintenance and expansion of the specification to meet the emerging needs of ADS.

[WZDx Specification and Project Page](#)

RESOURCES & REFERENCES

```
1 {
2   "$id": "https://raw.githubusercontent.com/usdot-jpo-odf/jpo-odf/jpo-odf/180c94575744f93b37940b9a7621ee17431c497/create-feed/schema/wzdx_v2_0_0.json",
3   "$schema": "http://json-schema.org/draft-07/schema#",
4   "title": "WZDX v2.0 Feed",
5   "description": "The GeoJSON output of a WZDX v2.0 data feed",
6   "type": "object",
7   "properties": {
8     "road_event_feed_info": {
9       "$ref": "#/definitions/road_event_feed_info"
10    },
11    "type": {
12      "description": "The GeoJSON type",
13      "enum": ["FeatureCollection"]
14    },
15    "features": {
16      "description": "The list of road events (GeoJSON Features)",
17      "type": "array",
18      "items": {
19        "title": "Road Event (GeoJSON Feature)",
20        "type": "object",
21        "properties": {
22          "type": {
23            "description": "The GeoJSON Feature type",
24            "enum": ["Feature"]
25          },
26          "properties": {
27            "$ref": "#/definitions/road_event"
28          },
29          "geometry": {
30            "oneOf": [
```

WZDX JSON Schema



FHWA Work Zone Data Initiative

WZDX DEMONSTRATION GRANTS



ELIGIBILITY AND REQUIREMENTS

BASIC AWARD INFORMATION

- **Total funding:** \$2.4M
- **Number of Awards:** Up to 12
- **Potential Award Amounts:** Up to \$200,000 each
- **Period of performance:** 14 months
- **Cost Share:** 20% Non-Federal Share
- **Federal involvement:** Performance monitoring, technical assistance, and participation in status meetings, workshops, and technical group discussions.

AWARD CATEGORIES

In order of priority, USDOT intends to fund projects in the following categories that will result in:

- A. Publication of a new WZDx-compliant data feed;
- B. Increased jurisdiction/system coverage of an existing WZDx-compliant data feed; OR
- C. Addition of optional field(s) to an existing WZDx-compliant data feed

Applicants need to specify one project category in their applications.

Applicants are allowed to submit multiple applications to address multiple project categories; USDOT would then consider applications consistent with the priorities indicated above.

CHALLENGE AREAS

Applicants are asked to identify one or more challenge areas to address in their projects. Applicants may propose a challenge not explicitly described in the NOFO.

- The IOO and/or the entities performing work on their roadways do not produce one or more data elements in the specification, do not produce them at a sufficient level of quality or granularity, and/or do not produce work zone data on all roadways within or across local jurisdictions; **(Challenge Area 1)**
- The IOO's data generation and acquisition processes (e.g., permitting systems, lane closure management systems) do not exist or rely on manual steps which delay data publication and/or reduce data quality; **(Challenge Area 2)**
- The IOO's backend data system architecture makes it difficult and/or expensive to share data in different formats for different uses, both within and across an organization. **(Challenge Area 3)**

MILESTONES AND DELIVERABLES

Category A

Milestone/Deliverable	Timing
Final work plan	Within 1 month of award
Publication of WZDx-compliant feed	Within 12 months of award

Category B

Milestone/Deliverable	Timing
Final work plan	Within 1 month of award
Increased system coverage of an existing WZDx-compliant data feed	Within 12 months of award

Category C

Milestone/Deliverable	Timing
Final work plan	Within 1 month of award
Addition of optional field(s) to an existing WZDx-compliant data feed	Within 12 months of award

ELIGIBILITY

Eligible Applicants must be one of the following types of organizations:

- State and local governments
- Tribal governments
- Transit agencies and authorities
- Metropolitan planning organizations
- Other subdivisions of State or local governments (including public port authorities/districts)
- Multi-jurisdictional group* applying through a single lead Applicant (a combination of eligible Applicants comprised of at least two members, each of whom is an eligible Applicant under the terms of this paragraph. One Applicant must be identified as the lead entity to serve as prime awardee in the event an award is made.)

Private companies and private universities are NOT eligible Applicants. However, private companies and private universities may be a sub-recipients or subcontractors.



SUBMISSION REQUIREMENTS & APPLICATION PROCESS

SUBMISSION REQUIREMENTS

FHWA requires submission of the following items:

- A. Narrative and Technical Approach
- B. Management Approach, Staffing, and Capabilities
- C. Work Plan
- D. Budget Detail
- E. Organizational Information

APPLICATION PROCESS

- The NOFO is available on grants.gov (<https://www.grants.gov/web/grants/view-opportunity.html?oppld=327731>)
- Applications must also be submitted through Grants.gov
- To submit, applicants must:
 - Obtain a Data Universal Numbering System (DUNS) number:
 - Register with the System for Award (SAM) at www.sam.gov.
 - Create a Grants.gov username and password, and
 - E-business POC at the applicant's organization must respond to the registration email from Grants.gov and login to authorize the POC as an Authorized Organization Representative.
- Note: The Grants.gov registration process usually takes 2-4 weeks to complete; late applications that are the result of failure to register or comply with Grants.gov applicant requirements will not be considered.

DATES & REMINDERS

TIMELINE

Milestone	Date
FY20 NOFO Released	June 22, 2020
FY20 Applications Due	August 3, 2020
Awards Processed	September 2020

Questions?

Contact Us:

Todd Peterson

Transportation Specialist

U.S. Department of Transportation

FHWA Office of Operations: Work Zone
Management

Todd.Peterson@dot.gov

Ryan Buck

Agreement/Contracting Officer

U.S. Department of Transportation

FHWA Office of Acquisition and Grants
Management

Ryan.Buck@dot.gov