### Multimodal System Inventory for Metropolitan Areas

STAC Meeting #4

**December 3, 2025** 

2:00 pm - 4:00 pm







# **Agenda**

# Welcome! Add your name and role in the chat.

- 1. Agenda review (5 min)
- 2. Project updates (5 min)
- 3. Data overview and intended uses (1 hr)
- **4. Break** (5 min)
- 5. Collaborative data management (40 min)
- 6. Next steps (5 min)







# What is the Multimodal Inventory Project?

A collaborative effort to produce a multimodal dataset that supports local planning needs, aligns with the updated TPR and can be maintained over the long-term.

### **Project Outcomes**



Standarized, multimodal datasets to comply with the updated TPR (Geometry & Attributes)



Methodologies for Data Collection, Processing, and QA/QC



Long-Term Data Management and Maintenance Framework



# **Using the data in Transportation System Plans**

A TSP describes the existing transportation system and the projects, programs, and policies that will allow a community to meet its transportation needs and aspirations now and 20 years into the future.

Start the community conversation

Existing Conditions

Analyze Future Needs

Define Solutions

Create project list

Adopt, implement and revisit

Define goals, issues, and existing needs

Collect data about what is 'on the ground' now

If no changes are made, how will things look in 20 years?

What projects and programs can address needs for people driving, biking, walking, and taking transit? How can we achieve the 20-year vision?

Prioritize solutions that fit within likely budget

Revisit plans on regular basis Report progress on performance measures



# **Using the data in Transportation System Plans**

A TSP describes the existing transportation system and the projects, programs, and policies that will allow a community to meet its transportation needs and aspirations now and 20 years into the future.

Start the community conversation

Existing Conditions

Analyze Future Needs

Define Solutions

Create project list

Adopt, implement and revisit

Create maps to support discussion of existing issues and future vision

Illustrate status & condition of the multimodal system

- Pedestrian
- Bicycle
- Transit
- Roadway
- Crash analysis

Crash analysis

Level of traffic stress

Other performance measures (v/c, etc.)

Travel demand modeling

Where do we need to fill gaps in the ped/bike system?

Does modeling show a need to expand vehicle capacity?

Are we serving key destinations?

Use the data to refine locations and extents of solutions

Track progress on:

- Level of traffic stress
- Safe, convenient ped crossings
- Transit stops with nearby safe ped crossing



# **Recap of June STAC Meeting**

- Grounded ourselves in project purpose, scope, and recent activities
- Demo of pilot dataset progress
- Discussed and sought feedback on proposed QA / QC process
- Frameup up long-term data management options (centralized, distributed or hybrid) and heard that a hybrid approach was preferred
- Reviewed an outline for the long-term data management plan



### 2024 / Pilot Cohort:

- Draft data setup complete (without intersection data)
- QA / QC underway Ashland
- Final Data Delivered to Albany, Millersburg, Beaverton



Ashland Albany Millersburg Beaverton Keizer Salem



### **2025 Cohort:**

- Almost all draft data setup complete (without intersection data)
- QA / QC underway
- Final Data Delivered to Eagle Point

Bend Clackamas County

Coburg

**Deschutes County** 

Eagle Point

**Forest Grove** 

**Gold Hill** 

Hillsboro

**Jackson County** 

Jacksonville

Medford

Multnomah County

Phoenix

**Portland** 

Sherwood

Springfield

**Tualatin** 

Washington County

Wilsonville



### **2026 Cohort:**

- Will begin setting up intro calls in Dec/Jan timeframe
- Conducted first kick off meeting with City of Corvallis expediting data processing to support local planning project

Adair Village	Gladstone	Lake Oswego	Rogue River
Benton County	Grants Pass	Lane County	Talent
Central Point	Gresham	Linn County	Tangent
Cornelius	Happy Valley	Marion County	Tigard
Corvallis	Jackson County	Maywood Park	Troutdale
Durham	Jefferson	Milwaukie	Turner
Eugene	Johnson City	Oregon City	West Linn
Fairview	Josephine Count	Philomath	Wood Village
	King City	Rivergrove	_



### **General Updates**

- Intersection data delivered and undergoing QA/QC
- Several conversations with ODOT Data Solutions Office, Data Section and Statewide Planning to review data management platforms
- Presentations at a range of partner events
   our goal is ongoing and transparent
   communication
- Pursuing contract extension to add 6 months





# **Data Layer Findings**





# **Project Datasets Updates**



### VEHICULAR + FREIGHT FACILITIES

- Roadways
- Freight Routes
- Freight Terminals



### BICYCLE + PEDESTRIAN FACILITIES

- Bicycle Routes
- Pedestrian Routes
- Pedestrian and Bicycle Crossings



### TRANSIT FACILITIES

- Transit Lines
- Transit Supportive Facilities (Stops)
- Transit Priority Infrastructure



### OTHER RELEVANT DATA

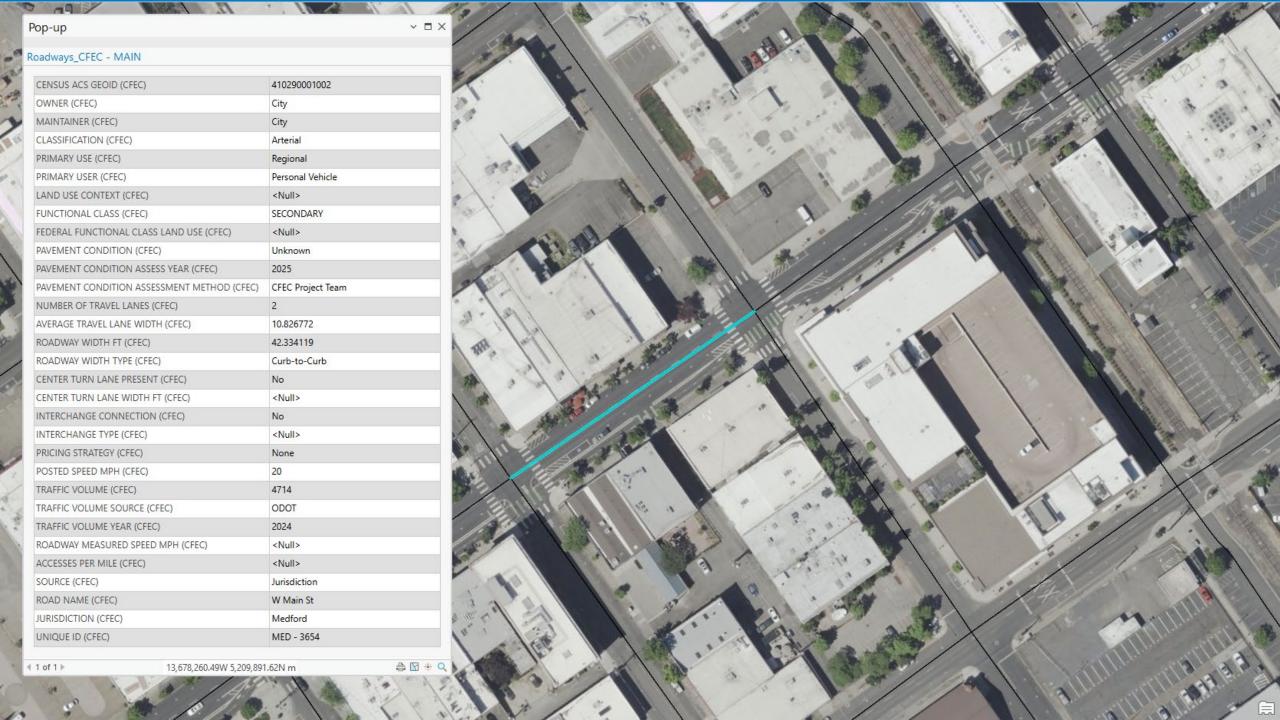
- Key Destinations\*
- Crashes
- Intersection Points

**Bold = Update existing jurisdiction data** 

Italic = Develop using Al

\* = Jurisdictions to populate during TSP





# **Project Datasets: Roadways**

### **Technical Adjustments**

- Alternative Source (E911)
- Additional Fields
- Developed AADT Priority

### **Lessons Learned**

- Al has a hard time allocating lanes when there is no center stripe.
- Al has a hard time locating all center turn lanes.

#### **Required TPR Attributes**

- Location
- Ownership
- Maintenance Responsibility
- Classification
- Primary Uses
- Primary Users
- Land Use Context
- Functional Classification
- Condition
- Condition Year
- Condition Methodology
- Number of Travel Lanes
- Lane Width
- Center Turn Lane
- Center Turn Lane Width
- Interchange Location
- Interchange Type
- Pricing Strategy
- Travel Speed
- Traffic Volume
- Traffic Volume Year
- Traffic Volume Source
- Roadway Width
- Roadway Width Type
- Federal Functional Classification
- Access Density
- Name
- Jurisdiction
- Unique ID



**Description:** All roadway facilities, including local roads, collectors, arterials, and expressways on public rights of way within a UGB.

**Geometry Type:** Line

**Source:** Jurisdiction (Existing) or

E911

Relevant TPRs: -0150, -0155, -0805

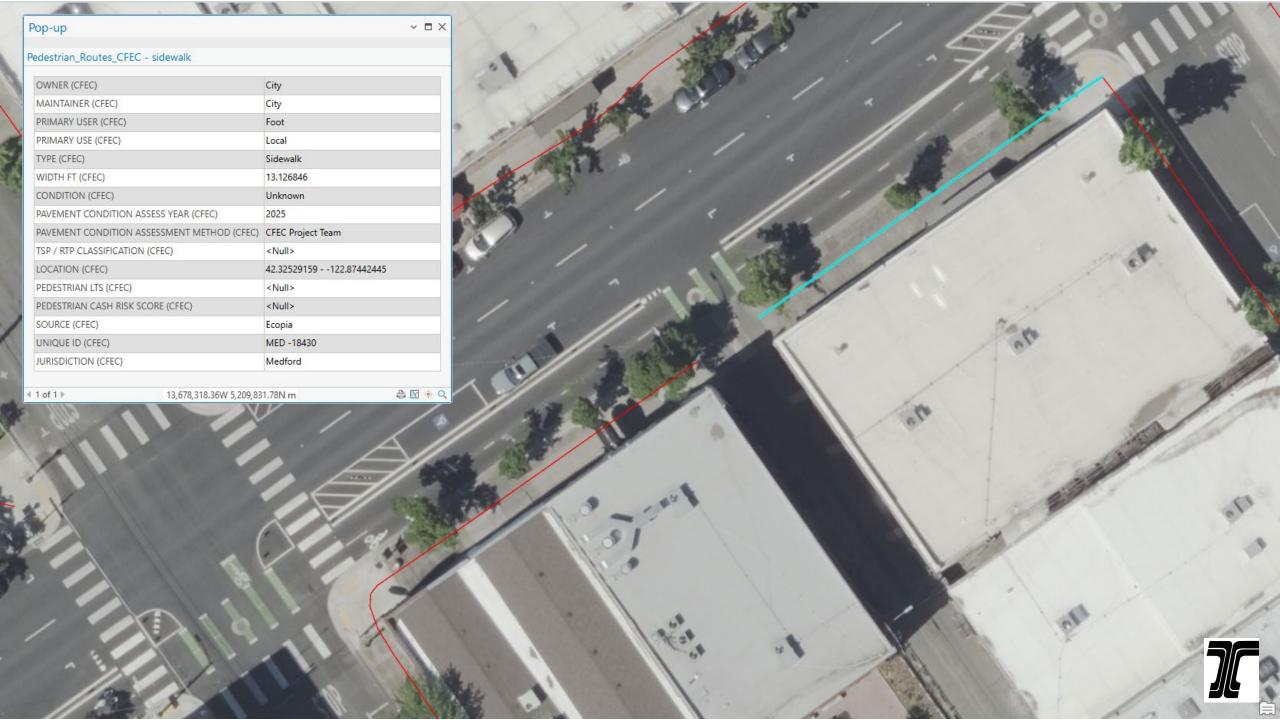
Project Phase: Primary

**Level of Accuracy:** 

**Spatial** = Varies (existing data)

**Attributes** = High





### **Project Datasets: Pedestrian Routes**

### **Technical Adjustments**

- Additional Fields
- Sidewalk and Trails Datasets
- Manually entering missing facilities

#### **Required Attributes**

- Location
- Owner
- Maintainer
- Use
- User
- Type
- Width
- Condition
- Condition Year
- Condition Methodology
- Classification/Designation
- Source
- Jurisdiction
- Unique ID

#### **Secondary Attributes**

- Level of Traffic Stress Inputs \*
- Crash Risk Inputs \*



**Description:** All paved pedestrian and shared use facilities on public rights of way within a UGB.

**Geometry Type:** Line

**Source:** Jurisdiction (Existing) + AI

**Relevant TPRs:** -0150, -0155, -

0505, -0905

**Project Phase:** Primary

Level of Accuracy: Spatial = High

Attributes = Moderate

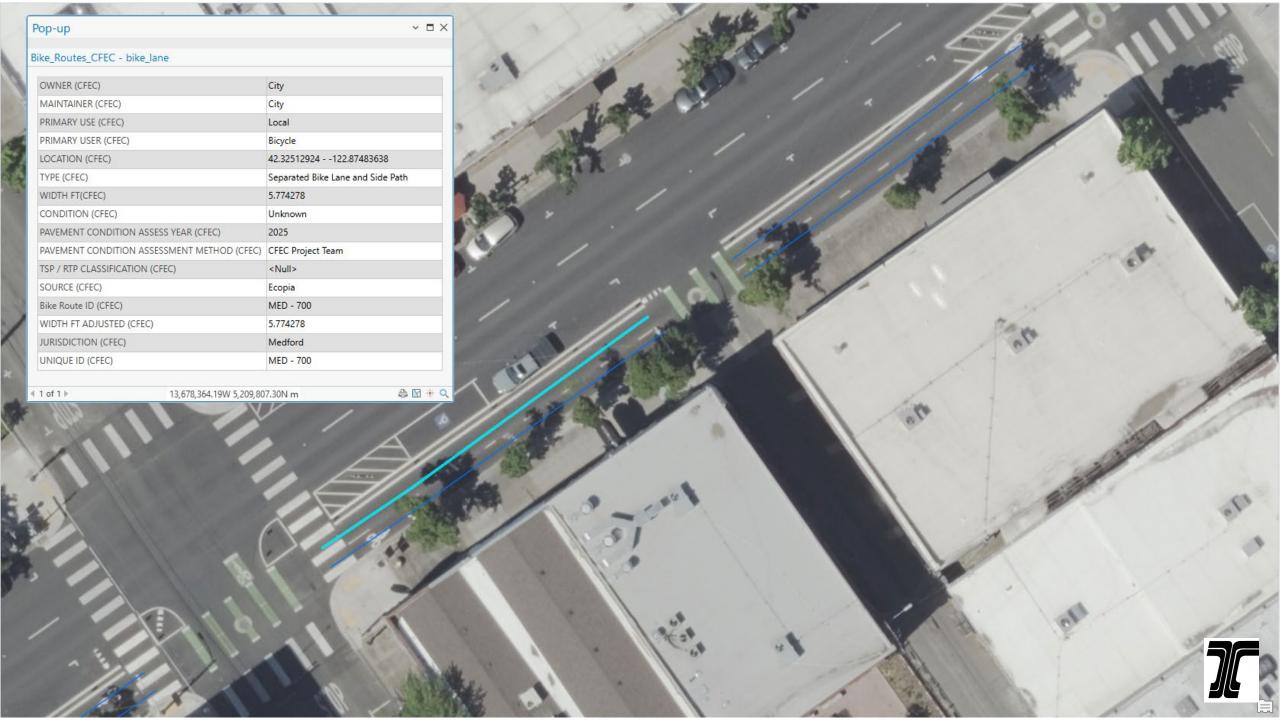


## **Project Datasets: Pedestrian Routes**

### **Lessons Learned So Far...**

- Al has a hard time locating data in tree / tall building cover.
- Al derived widths can be inaccurate, but project team does not have the resources to review.
- Al derived widths are too detailed. Some jurisdictions will add a field to put them in bins (ex: 1-4', 5-8', >8')
- Some jurisdictions have a sidewalk layer with trails; others have a sidewalk layer as well as a trails layer.
- Jurisdictions vary on whether they want non-ROW facilities included. (ex: Southern Oregon Univ. Campus)
- Condition attribute may not be accurate enough for jurisdictions to have confidence.





# **Project Datasets: Bicycle Routes**

### **Technical Adjustments**

- Additional Fields
- Widths of narrow (<3ft) and wide (>9ft) need to be reviewed
- Updated Types
- Manually entering missing facilities

#### **Required Attributes**

- Location
- Type
- Width
- Review Width
- Condition
- Condition Year
- Condition Methodology
- Classification/Designation
- Jurisdiction
- Unique ID
- Source

#### **Secondary Attributes**

- Level of Traffic Stress Inputs \*
- Crash Risk Inputs \*



**Description:** All paved, marked bicycle facilities on public rights of way within a UGB.

**Geometry Type:** Line

**Source:** Jurisdiction (Existing) + AI

**Relevant TPRs:** -0605(1), -0610(1), -0150(4)(a), -0155(5)(a), -

0905(2)(b)(A)

**Project Phase:** Primary

Level of Accuracy:
Spatial = High
Attributes = Moderate



# **Project Datasets: Bicycle Routes**

### **Lessons Learned So Far...**

- Al has a hard time locating data in tree / tall building cover.
- Al derived widths can be inaccurate when the striping is limited, or there is adjacent parking.
- Identifying physical buffers (bollards, curbs) is difficult.
- Identifying Bike Boulevards as a type will require designation from jurisdictions.
- Identifying Paved Shoulders as a type will require designation from jurisdictions.
- Al derived lines do not extend through intersections.



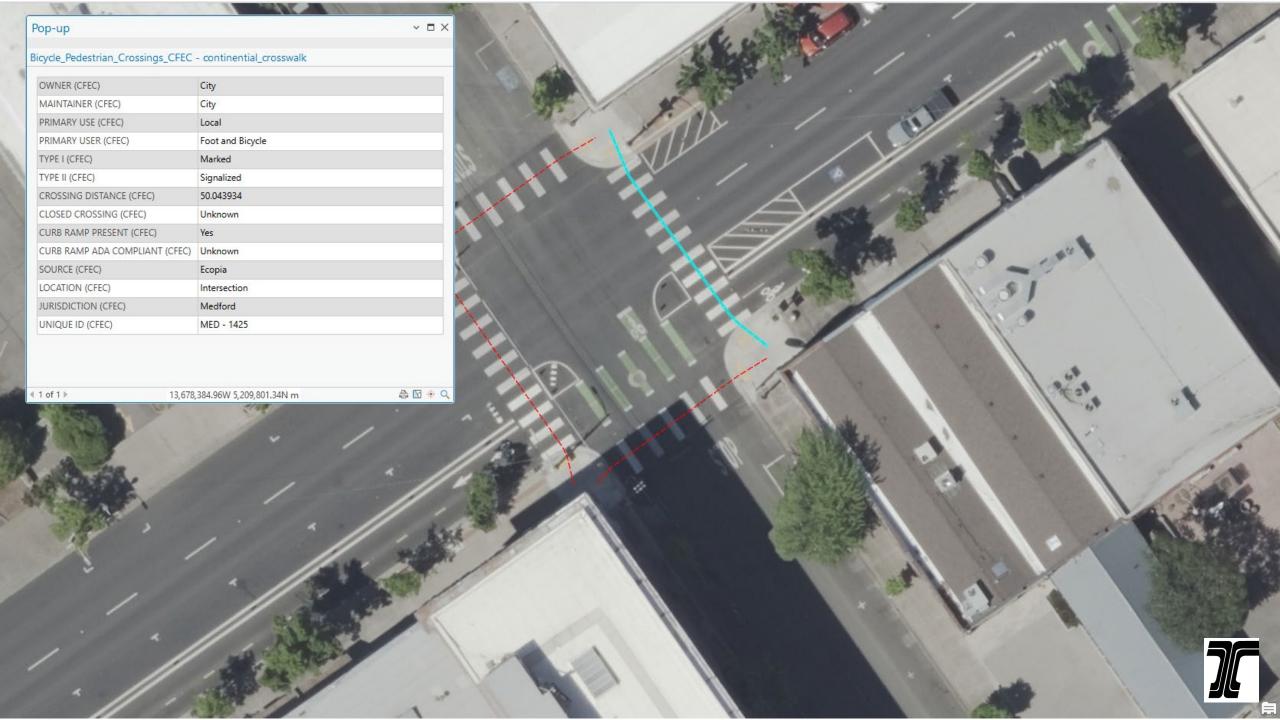
# **Project Datasets: Bicycle Routes**

### **Updating Bike Route Types**

- Fall 2024: Bike/Ped Working Group direction to define bike route types using AASHTO Bike Guide typology.
- Summer 2025: Project team identifies need to distinguish between striped bike lanes and no marked ROW.
- Solution: Subdivide AASHTO category into striped lanes vs. shared facilities

AASHTO Bicycle Facility Type	MM Inventory Type
Shared Lanes and Bike Lanes	Shared Lane
	Bike Lanes (including buffered bike lanes utilizing only paint, no physical or elevation barrier)





# **Project Datasets: Marked Crossings**

### **Technical Adjustments**

- Additional Fields
- Splitting Al-derived Crossings
- Revised Crossing Distanct Methodology
- ADA Accessibility will be jurisdictions responsibility
- Manually entering missing facilities

#### **Required Attributes**

- Location
- Owner
- Maintainer
- User
- Use
- Type
- Crossing Distance
- Closed Crossings
- Curb Ramp Present
- ADA Accesibility
- Jurisdiction
- Unique ID

#### **Secondary Attributes**

- Distance Between Crossings
- Crossing Treatment



**Description:** Pedestrian and bicycle crossings with striping on public rights of way within a UGB.

**Geometry Type: Line** 

**Source:** Jurisdiction (Existing) + AI

Relevant TPRs: -0505(1)(b), 0155(5)(a), -0605(1), -0155(5)(a), -0905(2)(b)(A)

**Project Phase:** Primary

Level of Accuracy: Spatial = High Attributes = High

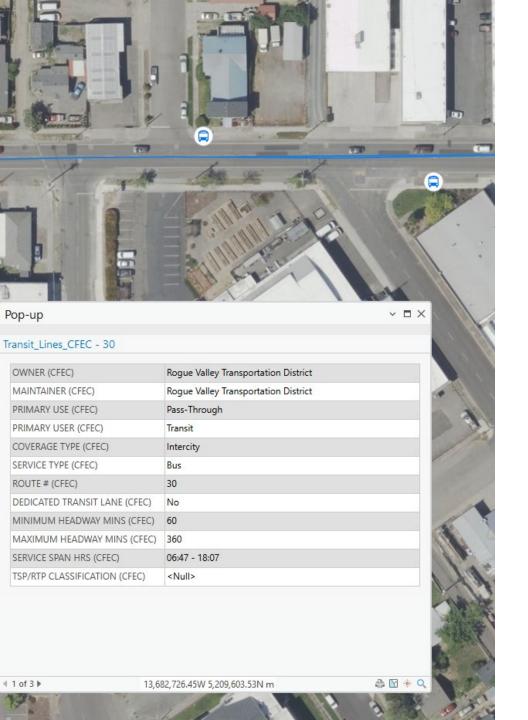


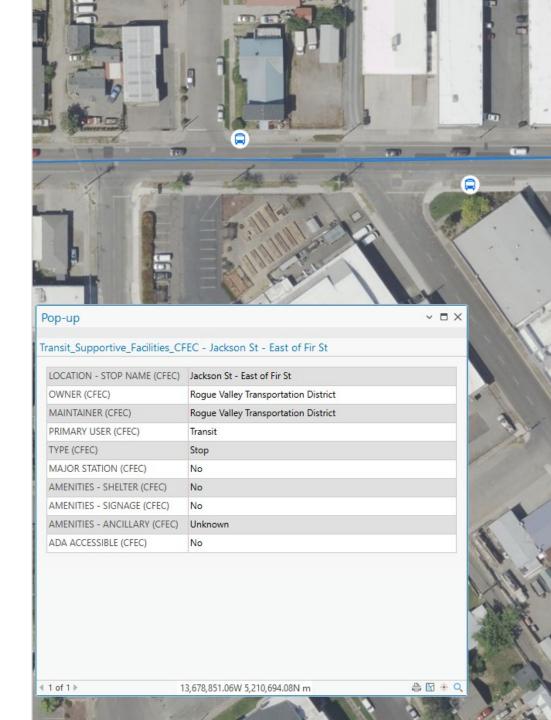
# **Project Datasets: Marked Crossings**

### **Lessons Learned So Far...**

- Al has a hard time locating data in tree / tall building cover.
- Al picks up crossings with pavers and other non-compliant treatments.
- All derived geometery cannot be used for lengths and instead requires a process including All derived land use.
- All derived crossings include additional lines to connect to pedestrian facilities.
   These lines must be queried out when inventorying crossings.







## **Project Datasts: Transit**

### **Technical Adjustments**

Non-GTFS Info

### Transit Lines – Required Attributes

- Location
- Coverage Type
- Service Type
- Route #
- Transit Lane
- Minimum Headway
- Maximum Headway
- Service Span
- Classification / Designation

### Transit Stop – Required Attributes

- Location
- Type
- Major Station
- Amenities Shelter
- Amenities Signage
- Amenities Ancillary Facilities
- ADA Accessibility



**Description:** Existing Transit Stops on public rights of way within a UGB.

**Geometry Type:** Point

**Source:** GTFS (primary source) with Transit Agencies/Jurisdictions providing input and review

Relevant TPRs: -0705(1), -

0700(4)(a)

**Project Phase: Primary** 

Level of Accuracy: Spatial = High Attributes = High



**Description:** Existing Transit Service Lines on public rights of way within a UGB.

**Geometry Type:** Line

**Source:** GTFS (primary source) with Transit Agencies/Jurisdictions providing input and review

**Relevant TPRs:** -0705, -0150

**Project Phase:** Primary

Level of Accuracy: Spatial = High Attributes = High



# **Project Datasets: Transit**

### **Lessons Learned So Far...**

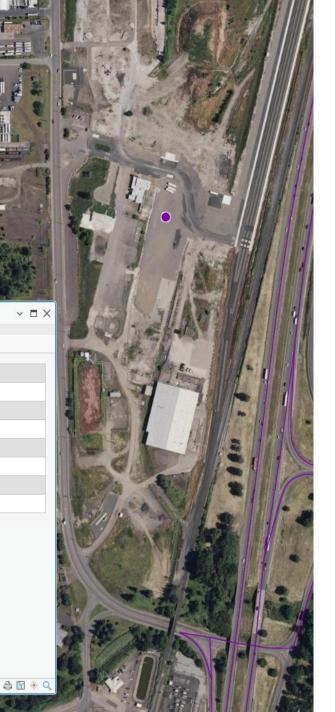
- Automation has been successful on all but the largest networks
- Additional information being solicited from Transit Agencies (ex. Schedule, ADA Compliance, Shelter)
- Larger jurisdictions may have more than one Transit dataset due to multiple providers.
- Smaller providers have little information.

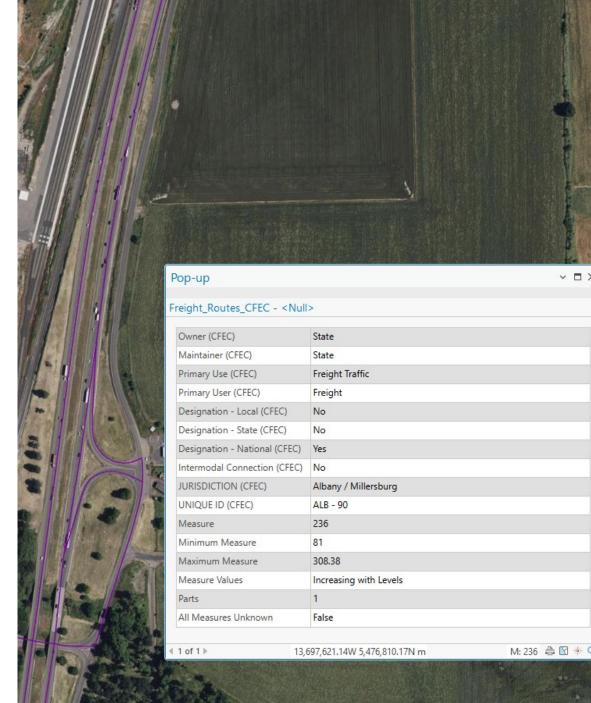




Freight\_Terminals\_CFEC - < Null>

Owner (CFEC) Private Private Maintainer (CFEC) Primary Use (CFEC) Freight Traffic Freight Primary User (CFEC) X - Longitude (CFEC) -123.060518 Y - Latitude (CFEC) 44.670961 JURISDICTION (CFEC) Albany / Millersburg ALB - 30 UNIQUE ID (CFEC)





# **Project Datasets: Freight**

### **Technical Adjustments**

Additional Fields

### **Lessons Learned**

- Many small jurisdictions do not have Freight Terminals.
- Changes from the USDOT / ODOT datasets are minimal.

### Routes – Required Attributes

- Location
- Ownership
- Maintenance Responsibility
- Classification
- Primary Uses
- Primary Users
- Designation
- Intermodal Connectors
- Jurisdiction
- Unique ID

### Terminals – Required Attributes

- Location
- Ownership
- Maintenance Responsibility
- Freight Terminal
- Jurisdiction
- Unique ID



**Description:** Designated freight routes and intermodal connectors on public rights of way within a UGB.

**Geometry Type:** Line

**Source:** USDOT National Multimodal Freight Network and Jurisdictions

**Relevant TPRs:** 0155, -0805

**Project Phase:** Primary

Level of Accuracy: Spatial = High (existing data)

Attributes = High



**Description:** Freight terminals accessible from public rights of way within a UGB.

**Geometry Type:** Point

**Source:** USDOT National Multimodal Freight Network and

Jurisdictions

**Relevant TPRs:** 0155, -0805

**Project Phase:** Primary

Level of Accuracy: Spatial = High Attributes = High





# Project Datasets: Intersections (IN PROGRESS)

### **Technical Adjustments**

- Consider removing redundant fields (ex. Bike Lane Type)
- May require adjusting domain values (ex. Bike Lane Buffer Type)
- Will likely require team to remove some intersections

### Lessons Learned so Far...

- Al derived attributes vary in terms of accuracy.
   This is due to the complexity of the attributes.
- This dataset will require the highest LOE for jurisdictions to review and update.

#### **Required Attributes**

- Lanes per direction
- Parking Presence
- Parking Width
- Frequent Blockage
- Bike Lane Buffer Presence
- Bike Lane Buffer Width
- Bike Lane Buffer Type
- Right Turn Lane Type for Bicycle Users
- · Right / Left Turn Lane Length
- Right / Left Turn Lane Vehicle Speed
- Bicycle Left Turn Lanes Crossed
- Intersection Type
- Median Refuge
- Median Refuge Width
- Unsignalized One-way or Two-way
- Unsignalized Prevailing Speed
- Roundabout Entry / Exit Type
- Roundabout Entry / Exit Approach
- Roundabout # of Circulating Lanes
- Sidewalk Buffer Type
- Sidewalk Buffer Width
- Illumination Presence
- Sidewalk Ramps
- Treatments Markings
- Treatments Roadside Signage
- Treatments PHB or RRFB
- Treatments Street Signs
- Treatments Curb Extensions
- Treatments Raised Crosswalk
- Treatments Flashing Beacon

(Bold = Al Derived Attribute)



Description: Points for each road entering an intersection. This dataset will be used primarily for BLTS and PLTS analyses. This dataset would only apply to collector and arterial streets. Typically, this dataset is developed manually, and it may not be possible to develop a statewide dataset with the specified level of detail.

**Geometry Type:** Point

Source: AI + Project Team

**Relevant TPRs:** -0905(2)(b)(A)

**Project Phase:** Contingency

Level of Accuracy:
Spatial = Moderate
Attributes = Moderate

### **Discussion**

Do these technical resolutions make sense? Are there other things we should keep in mind?

What additional questions do you have?



Let's take a break.
See you in 5.



# Proposed Data Management Approach





# **Building a Dataset for the Long-Term**

# A long-term governance strategy is necessary to ensure a sustainable dataset. The long-term plan will cover:

- Collaboration, coordination and communication (IGAs, roles, governance structure, etc)
- Data classification
- Data standards and definitions
- Policies on access, usage and security
- Data storage & technologies (how and where)
- Data processes, lineage, quality assurance





## **Building a Dataset for the Long-Term**

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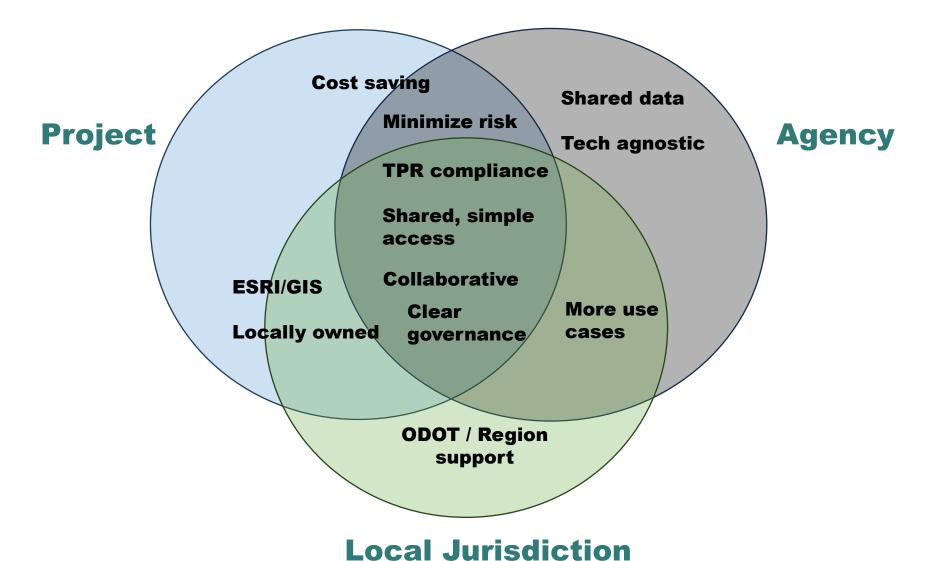
## **Recap on Local Jurisdiction Goals**

Local

- Meet TPR requirements
- Efficient and cost-effective data updates
- Preserve integrity of initial local datasets
- Support from Agency, COG or MPO to update data
- Clear process and expectations for data updates in a centralized platform
- Easy to access ideally an existing platform
- Accommodate a range of skillsets
- Visual platform for use, exploration and presentations
- Periodic audits and version control



## **Project, Local Jurisdiction, and Agency Goals**





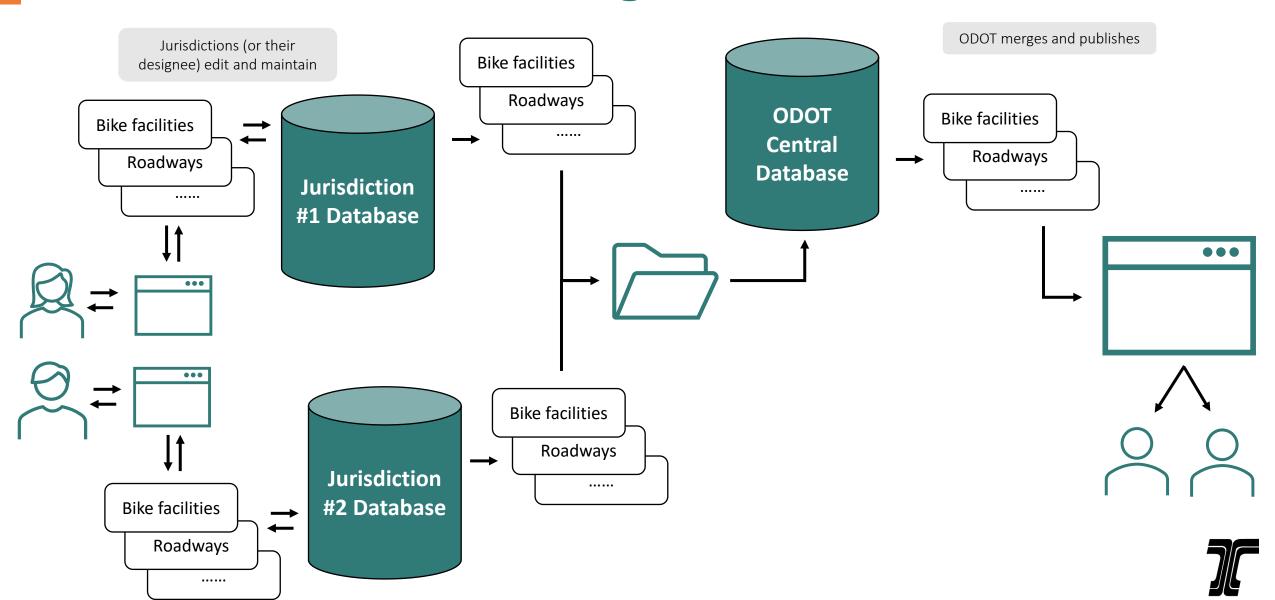
## **Proposed Data Management Approach**

## Hybrid approach

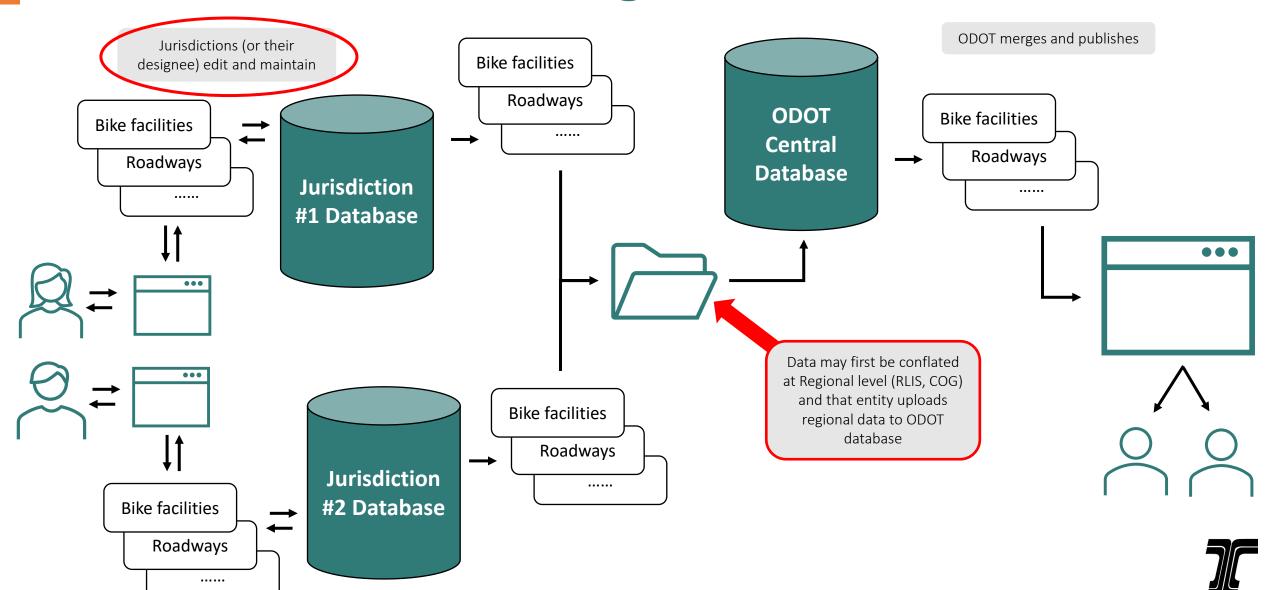
- Builds on feedback that state / regional roles are valuable
- Local agencies maintain autonomy & authoritative local data
- Local agencies will perform QA/QC and data upkeep
- ODOT will conflate and store data on enterprise GIS
- ODOT will continue to manage and contribute statewide layers



## **Collaborative Data Management**



## **Collaborative Data Management**



### Roles

Local Jurisdictions/ Regional Agencies	ODOT
Local jurisdictions edit & maintain data for local system. May be in partnership with COG/Metro.	ODOT maintains its existing statewide data layers and is the data administrator – responsible for collating & publishing statewide dataset
Roadways	Freight routes
Pedestrian facilities	Freight terminals
Bike facilities	Transit lines
Pedestrian and bike crossings	Transit stops
Key destinations	Crashes
Intersection points	Conflated statewide layer
Transit priority infrastructure*	

\*transit provider provided

Are these the right ownership roles?

Your thoughts today informs next steps.



## **Versioning / Release Ideas**

- Statewide data releases once or twice a year
- No interim updates, but data collated from locals up to release time
- Older versions available
- All features for all data sets uploaded with each release
- Statewide dataset published as a webmap
- Project partners have full data download access via prior IGA. New data users complete a request form to access the data via download
- Same data will also be available from local/ regional data owner



## Longer term collaboration

#### ODOT team is exploring IGA / MOU options to document agreements on:

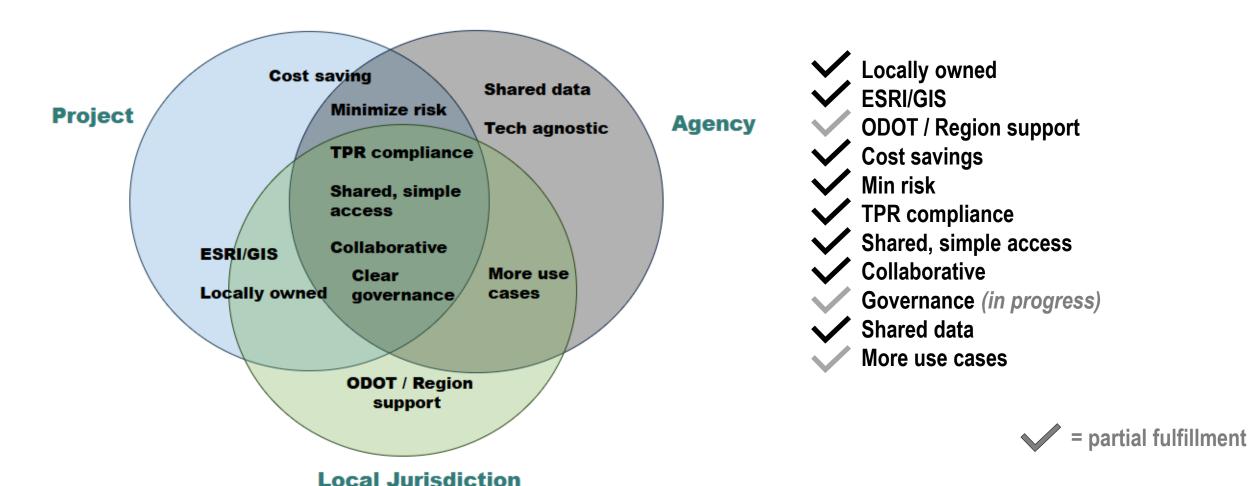
- Coordination protocols, roles, governance structure, etc.
- Data classification, standards and definitions
- Policies on access, usage and security
- Data storage and technologies (how and where)
- Data processes, lineage, quality assurance

#### Is an oversight body valuable to help define and facilitate future data upkeep?

- Data schema revisions and schedule for rollout
- Improvements to data or workflows
- Outreach, training, documentation, funding opportunities
- Licensing and use agreements



## **Proposed Data Management Approach**



#### **Local Jurisdictions**

Local jurisdictions edit & maintain data for local system. May be in partnership with COG/Metro.

Roadways

Pedestrian facilities

Bike facilities

Pedestrian and bike crossings

**Key destinations** 

Intersection points

Transit priority infrastructure\*

How can we better support COGs/ Metro with this process?



We understand how important COG/ Metro's role will play in this process and may be unique.

<sup>\*</sup>transit provider provided

# Is an oversight body valuable to help define and facilitate future data upkeep?

#### They could...

- Data schema revisions and schedule for rollout
- Improvements to data or workflows
- Outreach, training, documentation, funding opportunities
- Licensing and use agreements



How likely are you (personally) to participate in this long-term data management process?



How likely is your agency to participate in this long-term data management process?

What's your jurisdiction's primary reason to participating?



What barriers may keep you from participating?



## **Next Steps**

**Project Briefing:** December 8, 2025 (1 − 2 pm)

STAC Next Meeting: Early 2026 - Review a Draft Data Management Plan

