Advancing Rural Mobility

Improving Transit Service Discovery in Michigan

AGENDA

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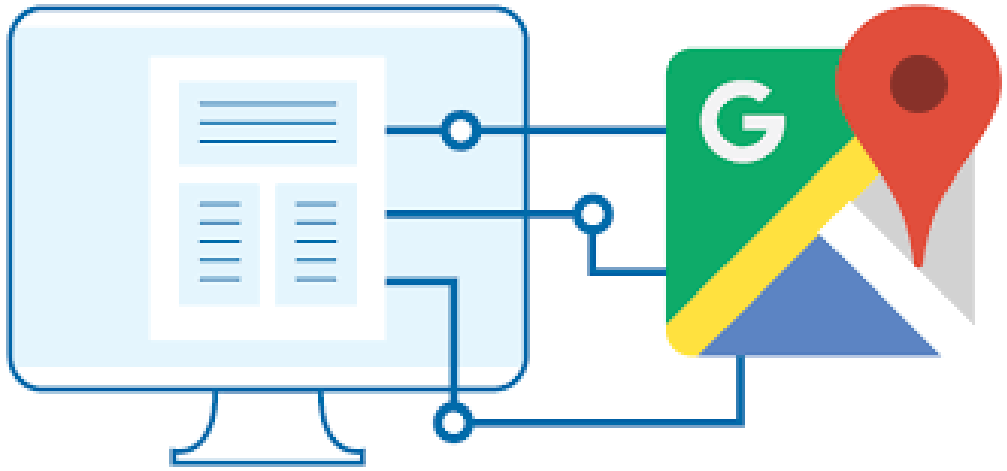
PROJECT OBJECTIVES

Challenges in Rural Transit

- Rural transit agencies often struggle to provide accurate and easily accessible service information.
- Information on agency websites can be hard to find, making it difficult for users to get updates, such as service cancellations.

GTFS in Michigan

- Open-standard GTFS data is common at urban transit agencies in Michigan.
- GTFS data has not supported most rural services.
  - With the adoption of GTFS-Flex, there is an opportunity to provide riders with information.



MDOT Statewide MaaS

- MDOT's Statewide MaaS system aims to provide a single interface to access transit information across Michigan.

- The Advancing Rural Mobility project will contribute to MaaS functionality by laying the groundwork for standardized data specifications for demand-response.

Project Objectives

- MDOT OPT developed the Advancing Rural Mobility Project (pilot project) to implement GTFS-Flex at four rural transit agencies.

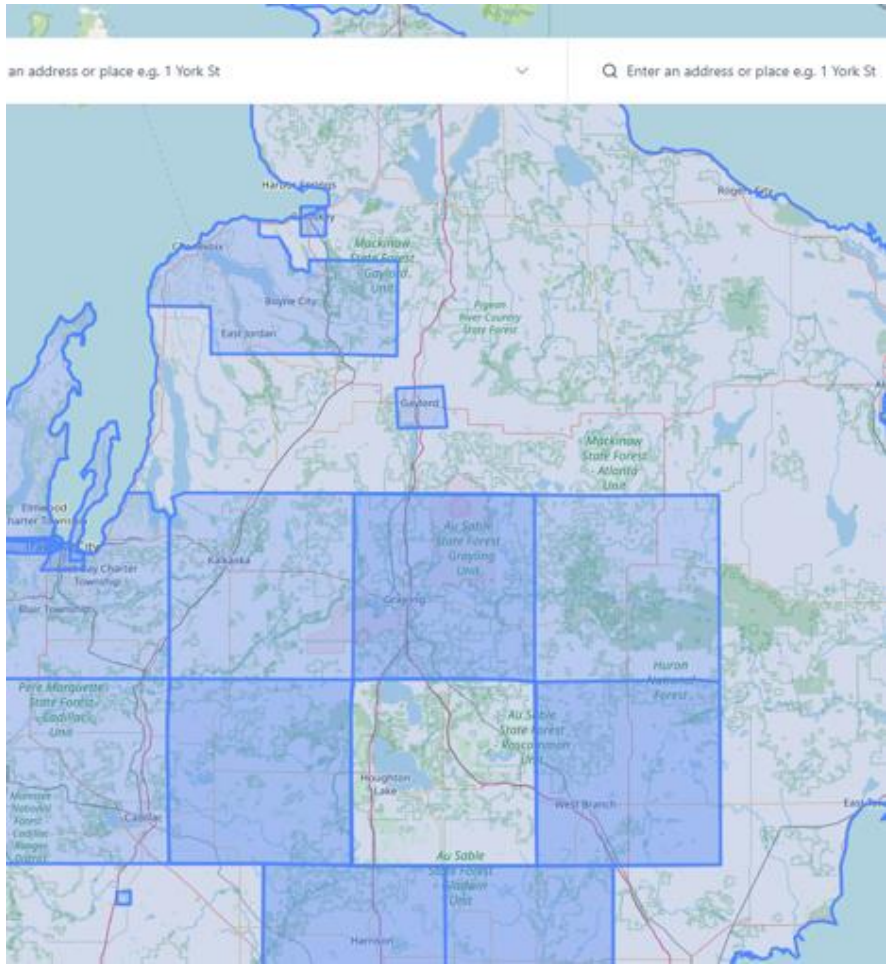
- The project is funded by the Bipartisan Infrastructure Law's (BIL) Strengthening Mobility and Revolutionizing Transportation (SMART) discretionary grant program.

Project Stages

- Stage One assisted rural transit providers in developing data specifications and infrastructure that will help reduce barriers to mobility for the residents they serve.

- Stage Two of the pilot project aims to expand these technologies to the rest of the State and connect with urban agencies.

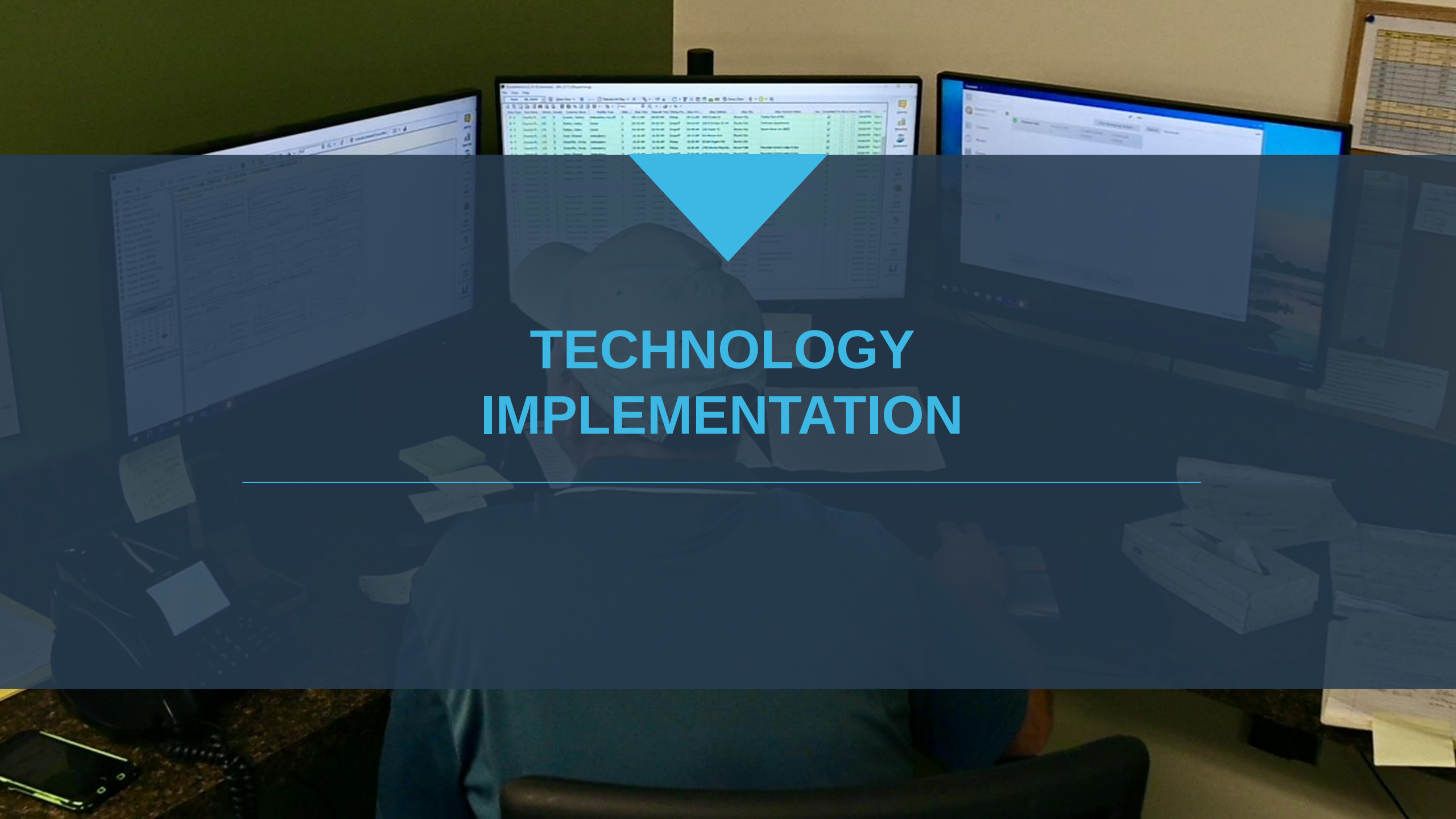
Stage One Achievements



- The pilot project has increased the visibility of rural transit options to the public.
- Agencies now have the capacity to maintain data used in trip-planning applications.
- Leveraging contemporary technologies and data formats benefits transit services in rural, urban, and suburban areas.

Potential Impact on Workforce

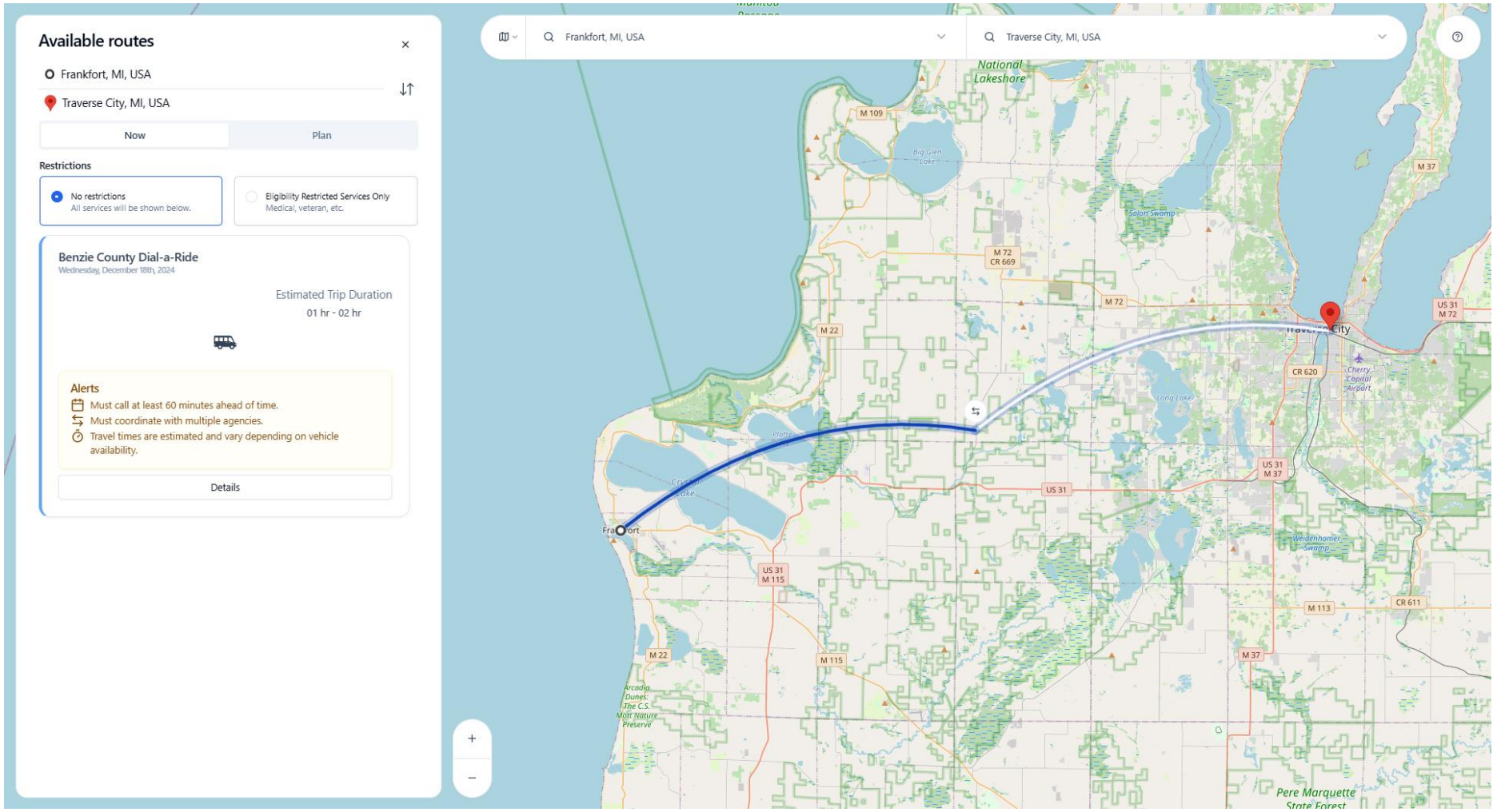
- At-scale implementation will equip transit agency staff with new skills in GTFS-Flex and GOFS technologies, improving rural mobility and access to opportunities.
- Enhanced transit services will support rural communities' quality of life and economic growth by creating and maintaining good-paying local transit jobs.
- Access to transit information will allow residents to discover transportation options to job opportunities, removing a barrier to employment.



TECHNOLOGY IMPLEMENTATION

Online Trip Planner

Online Trip Planner

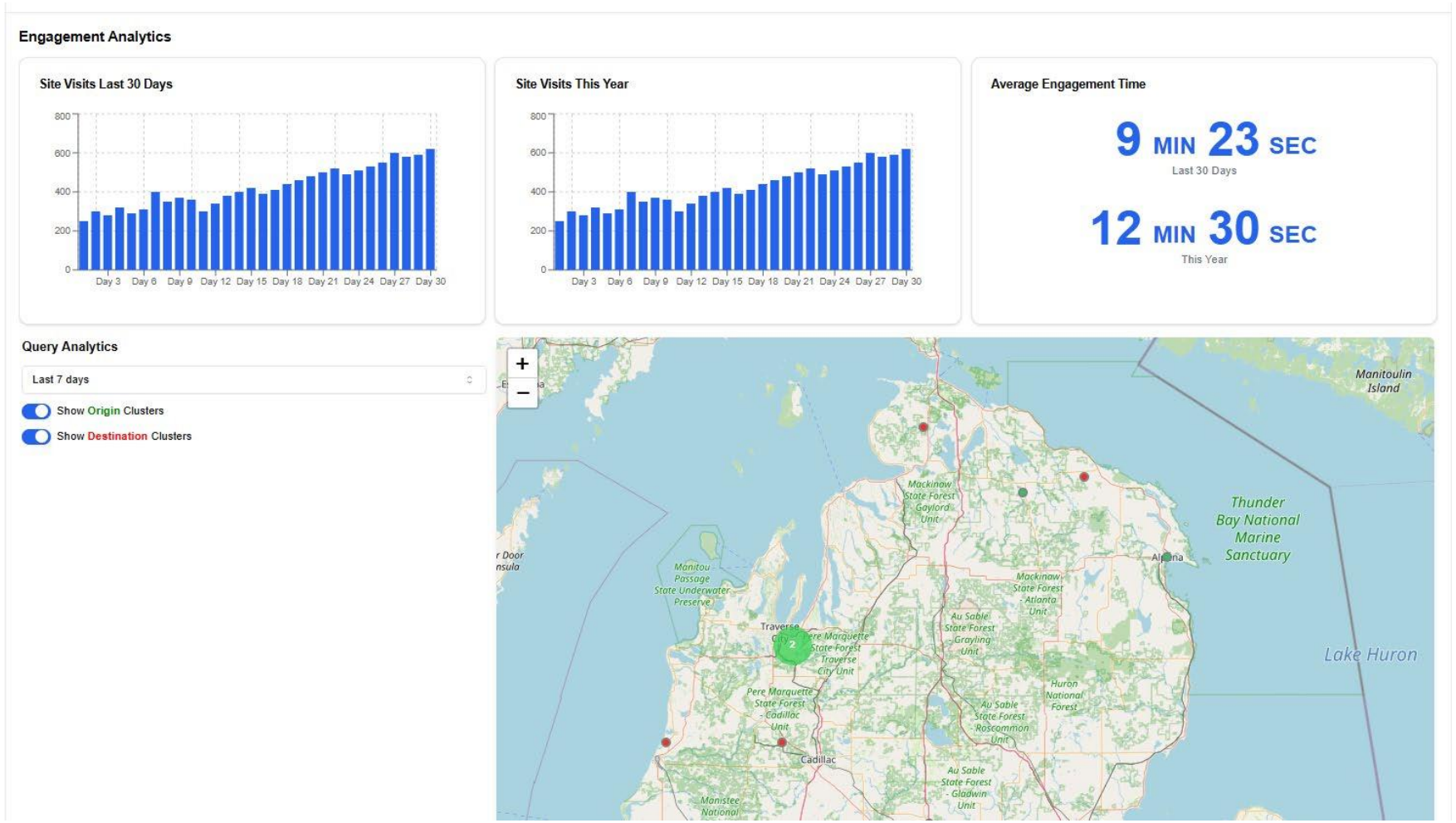


Beta Testing

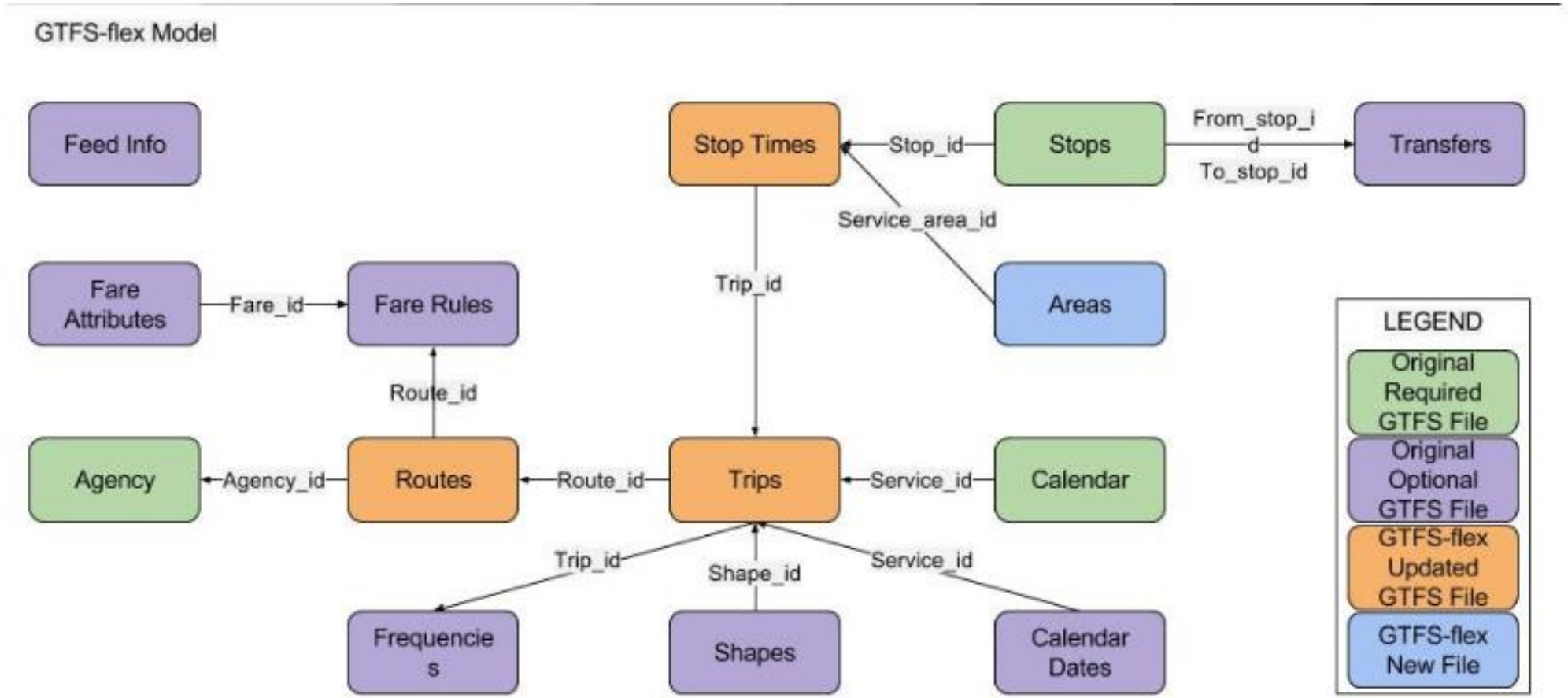
- Stakeholders followed basic instructions to test, validate, and provide feedback on the accuracy of services and usability.

- Testing tasks included entering origins and destinations to ensure accurate service modeling.

Online Trip Planner – Engagement Dashboard



Online Trip Planner



Example of a GTFS file

agency.txt - Notepad

File Edit Format View Help

```
"agency_id","agency_url","agency_lang","agency_name","agency_phone","agency_timezone","agency_fare_url","tts_agency_name"
"BB","https://www.benziebus.com/","en","Benzie Transportation Authority","(231)-325-3000","America/Detroit","",""
"CC","https://www.charlevoixcounty.org/county_transit/","en","Charlevoix County Transit","(231)582-6900","America/Detroit","https://cctt
"RC","https://www.roscota.net/","en","Roscommon County Transportation Authority","(989)366-5309","America/Detroit","",""
"WC","https://www.wexexpress.us/","en","Cadillac / Wexford Transportation Authority","(231)582-6900","America/Detroit","",""
```

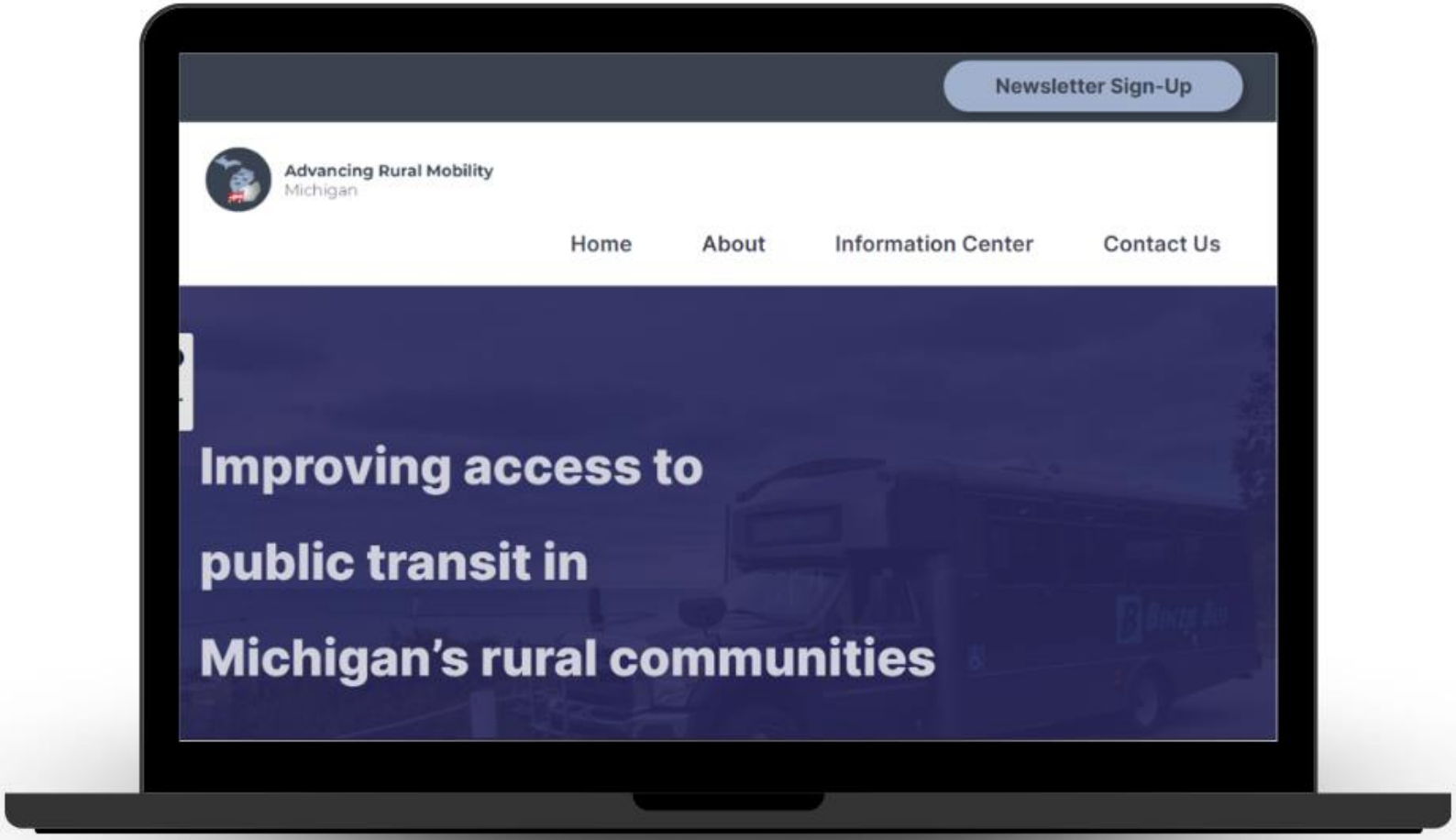
Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

Name	Type	Compressed size	Password ...	Size	Ratio	Date modified
agency.txt	Text Document	1 KB	No	1 KB	38%	1/26/2024 1:06 PM
booking_rules.txt	Text Document	1 KB	No	1 KB	44%	1/26/2024 1:06 PM
calendar.txt	Text Document	1 KB	No	1 KB	45%	1/26/2024 1:06 PM
calendar_attributes.txt	Text Document	1 KB	No	1 KB	33%	1/26/2024 1:06 PM
calendar_dates.txt	Text Document	1 KB	No	1 KB	50%	1/26/2024 1:06 PM
directions.txt	Text Document	1 KB	No	1 KB	34%	1/26/2024 1:06 PM
feed_info.txt	Text Document	1 KB	No	1 KB	45%	1/26/2024 1:06 PM
locations.geojson	GEOJSON File	16 KB	No	146 KB	90%	1/26/2024 1:06 PM
routes.txt	Text Document	1 KB	No	1 KB	44%	1/26/2024 1:06 PM
stop_times.txt	Text Document	1 KB	No	1 KB	67%	5/8/2024 2:46 PM
stops.txt	Text Document	1 KB	No	1 KB	44%	1/26/2024 1:06 PM
trips.txt	Text Document	1 KB	No	1 KB	49%	5/8/2024 2:48 PM

KEY PARTNERSHIPS

Engagement Strategies

Project Website



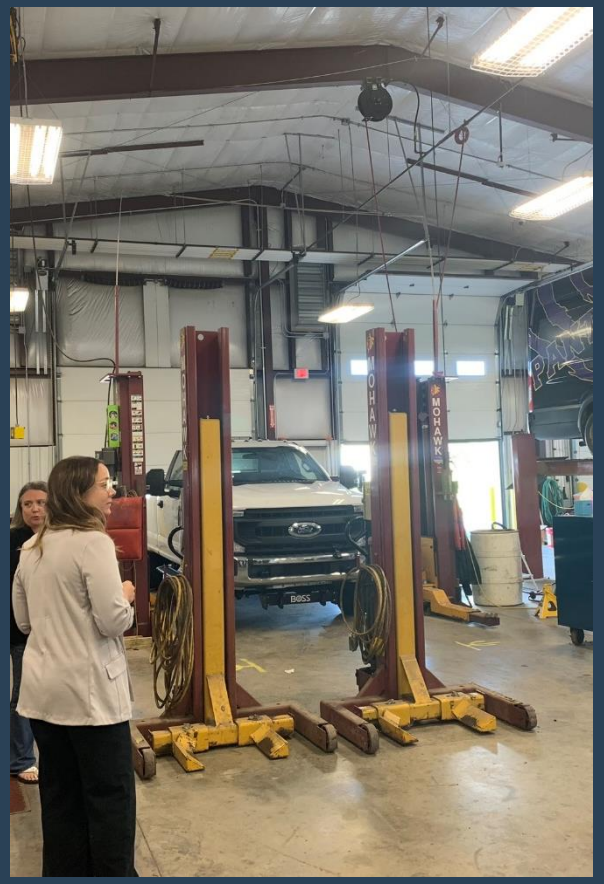
Program Benefits

- Increase awareness of and access to public transit options in rural communities
- Enable the public to make more informed choices about options to reach their destinations
- Create reliable data specifications and prepare rural transit agencies to adapt to future technologies
- Provide consistent data across all agency and passenger-facing tools.
- Develop a replicable process that transit agencies can adopt across the state
- Train transit agency staff in modern technologies and provide opportunities to shape the project through collaboration and engagement

Glossary

- Advancing Rural Mobility Program
- Demand-Response Transportation
- Fixed-Route Transportation
- General Transit Feed Specification (GTFS)

Agency Site Visits



Agency Site Visits

Marketing Kits

Benzie Bus Marketing Tool Kit

Social Media + Website Graphics

Kalkaska Public Transit Marketing Tool Kit

Flyer

Crawford County Marketing Tool Kit

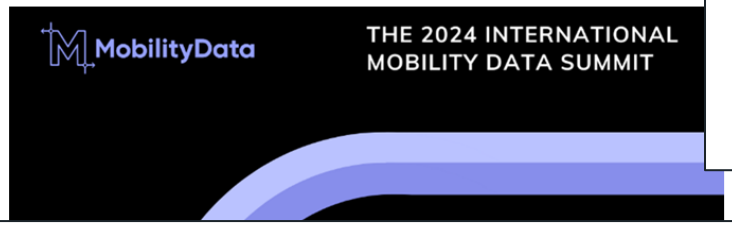
Newsletter

Online Newsletter

Advancing Rural Mobility
Michigan

Program Overview
Public transit provides a critical lifeline in rural communities, but awareness of available services can be challenging. The Advancing Rural Mobility Program (ARMP) seeks to improve transit service discovery and trip planning in rural area and provide passengers access to static and real-time transit information.

MDOT's Janet Geissler to Share Insights at 2024 International Mobility Data Summit
MDOT's Janet Geissler, along with other SMART grant recipients, will present insights from the Advancing Rural Mobility Program (ARMP) in an upcoming panel presentation titled "Highlights from Nationally Funded Mobility Data Projects." The session will take place this week at the 2024 International Mobility Data Summit in Montreal. The two-day event is focused on the role of mobility data and standardization in creating sustainable transportation. It will bring together transit agencies, shared mobility providers, policymakers, city officials, and standardization experts to explore the future of mobility through data.



Agency Spotlight Features

Partner Agency Spotlight: Cadillac/Wexford Transit Authority
Cadillac Wexford Transit Authority, known as WexExpress, offers door-to-door public transit across Wexford County, which spans over 575 square miles. WexExpress offers two types of transportation: publicly accessible buses and a program where volunteers drive. It's a Demand-Response service, meaning riders are grouped within areas and times to optimize efficiency.

Additionally, WexExpress manages the New Freedom Volunteer Drive Program. This initiative enables riders to travel beyond the typical routes in Wexford County to various parts of Michigan, assisting residents in reaching appointments or treatments elsewhere in the state. Since the program started in 2018, it has experienced significant growth, expanding from 63 to 400 rides per month, supported by a team of volunteers. Services are available from 5:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 12:00 p.m. on Saturdays.

LESSONS LEARNED

Lessons Learned

- The project demonstrated the importance of adaptability and resilience in managing transit data.

- By refining processes and developing scalable solutions, the project team ensured effective responses to challenges and maintained service continuity as the project scales up.

Lessons Learned

- Refining the process to create initial service descriptions from online information, then validating with agencies, ensured service data accuracy and efficiency.

- Agency staff were effective in resolving inconsistencies with service information displayed online, but scaling up may amplify these challenges.

FUTURE PLANS

Future Plans

- At-scale implementation will develop solutions that can be easily adapted from Stage One to cover more areas and services.
- Future enhancements include the ability for agencies to provide real-time travel updates and update their own data feeds.
- Urban trip itineraries will also be included in the trip planner.

Q&A

THANK YOU!

Daniel Mihalov
Jillian Otten