REGIONAL TECHNOLOGY COMMITTEE (SPECIALLY CALLED)

Andy Macke, Chair

April 6, 2023

Regional Technology Committee (Specially Called)
Thursday, April 6, 2023
Proposed Agenda

I.   Call to Order – Andy Macke, Chair

II. Approval of Minutes for September 1, 2022

III. Approval of Agenda for April 6, 2023

IV. MARTA Reach Pilot Follow-Up Data Analysis – Anthony Thomas, MARTA

V.   ATL RIDES Soft Launch and Product Demo – Abby Marinelli

VI. Adjournment

TODAY   TOMORROW   FUTURE

MARTA Reach Cost Assessment

Anthony Thomas

MARTA Reach Cost Assessment

April 6, 2023

ATL Board of Directors

Agenda

1. **Service Overview**

2. **Optimizing Service**
   - How can we best balance service levels and ridership?

3. **Assessing Costs & Staffing Models**
   - How much does on-demand cost?

4. **Putting it all together**
   - Recommendations for on-demand transit at MARTA
   - Hand-off to NextGen Bus Project

MARTA Reach vehicle

# Reach Background

Overview of the Reach service

April 2023

Pilot Overview

- Shuttles connected "virtual stops" to nearby fixed-route hubs
  - All trips were required to start and end within the zone (unlike Uber/Lyft)
  - If the origin & final destination was within the zone, we would complete the trip directly
  - If the final destination was outside of the zone, we would connect to fixed route service to get to final destination
- Pilot operated **6:00 AM to 7:00 PM, Monday - Friday**
- Standard $2.50 fare with transfers included, passes accepted
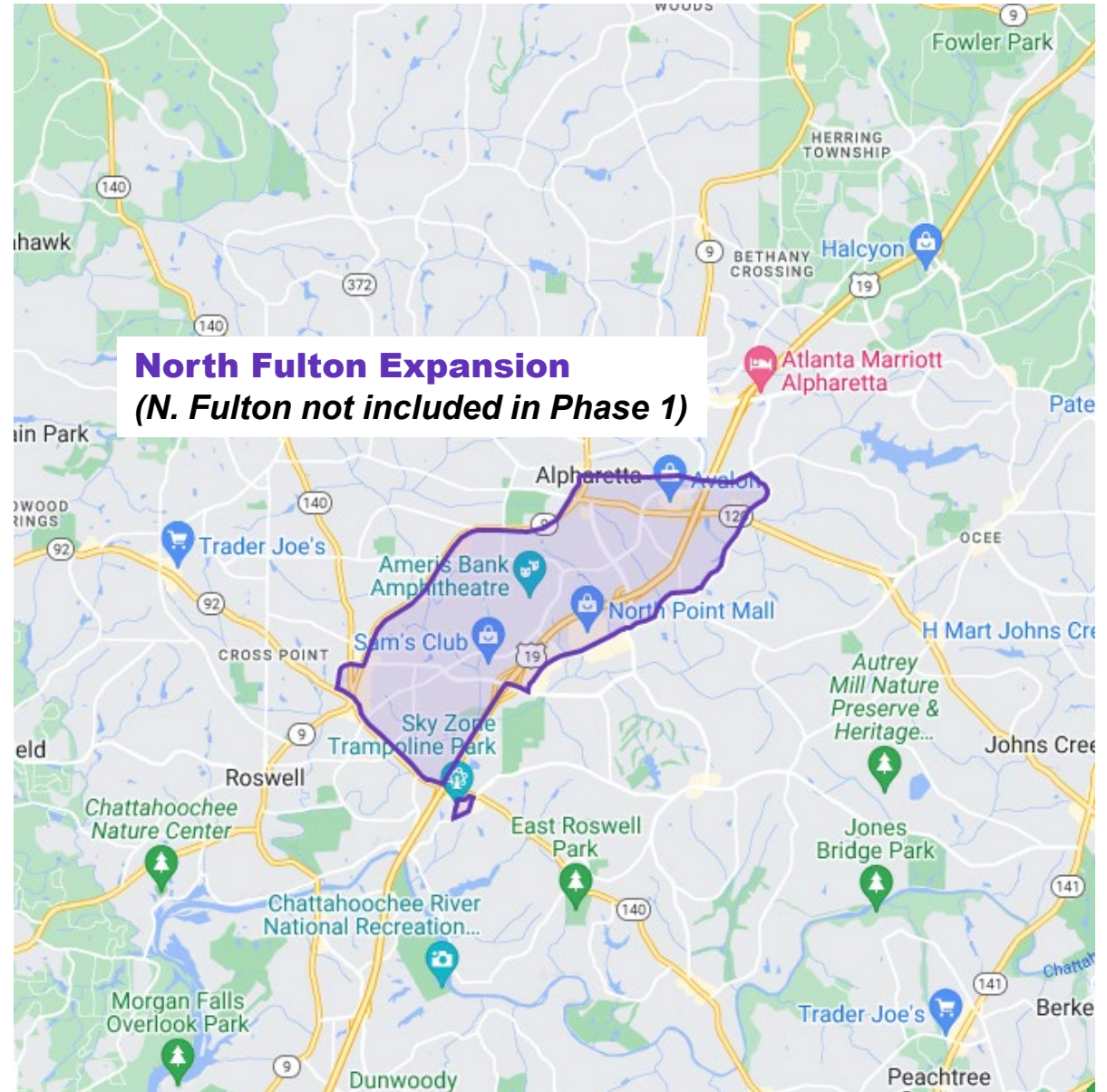- Pilot service limited to four specific zones. Only trips within these zones were allowed
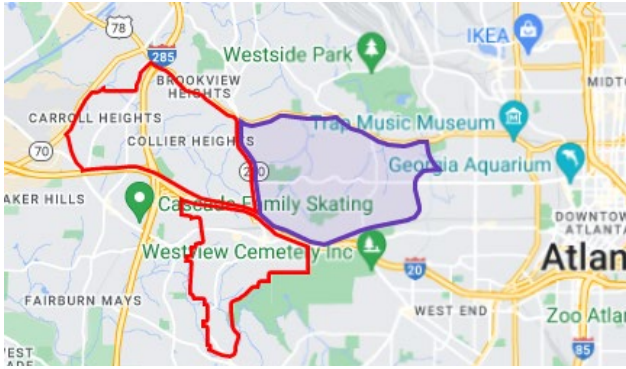
Belvedere Zone (Phase 1)
Belvedere Expansion

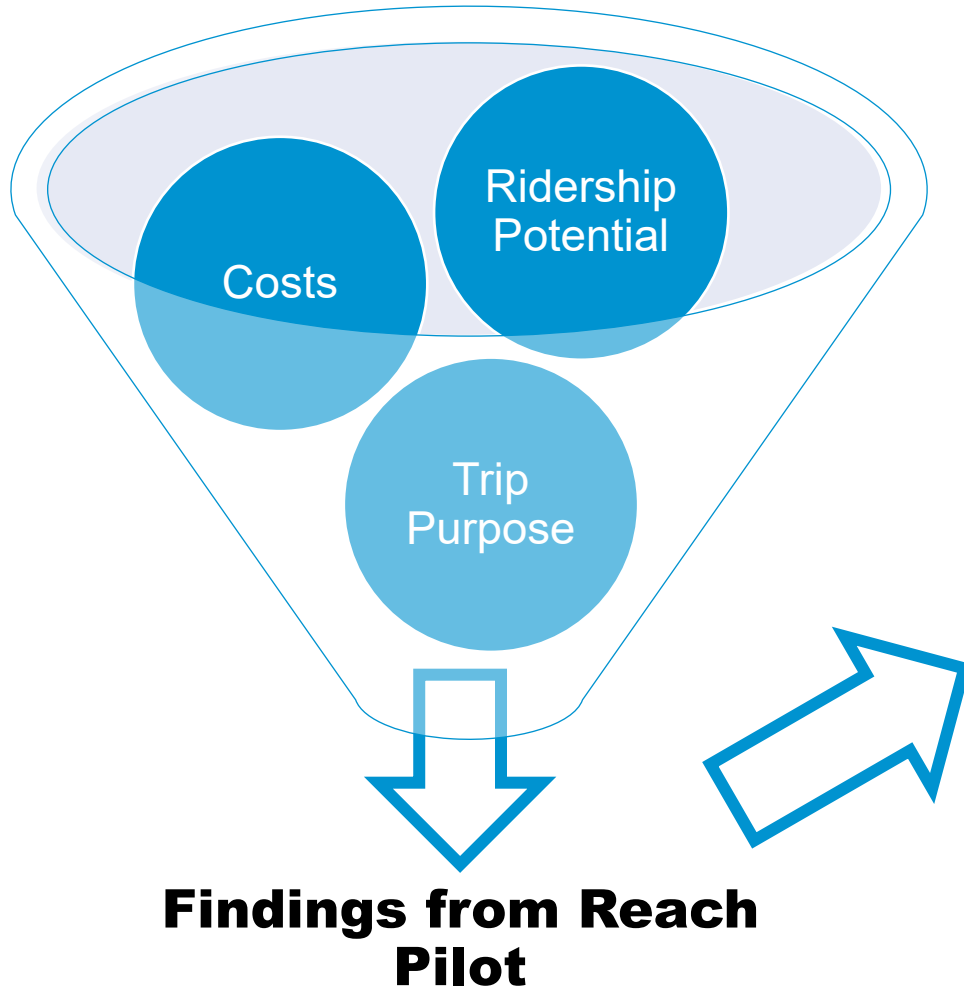**West Atlanta Zone (Phase 1)**
West Atlanta Expansion
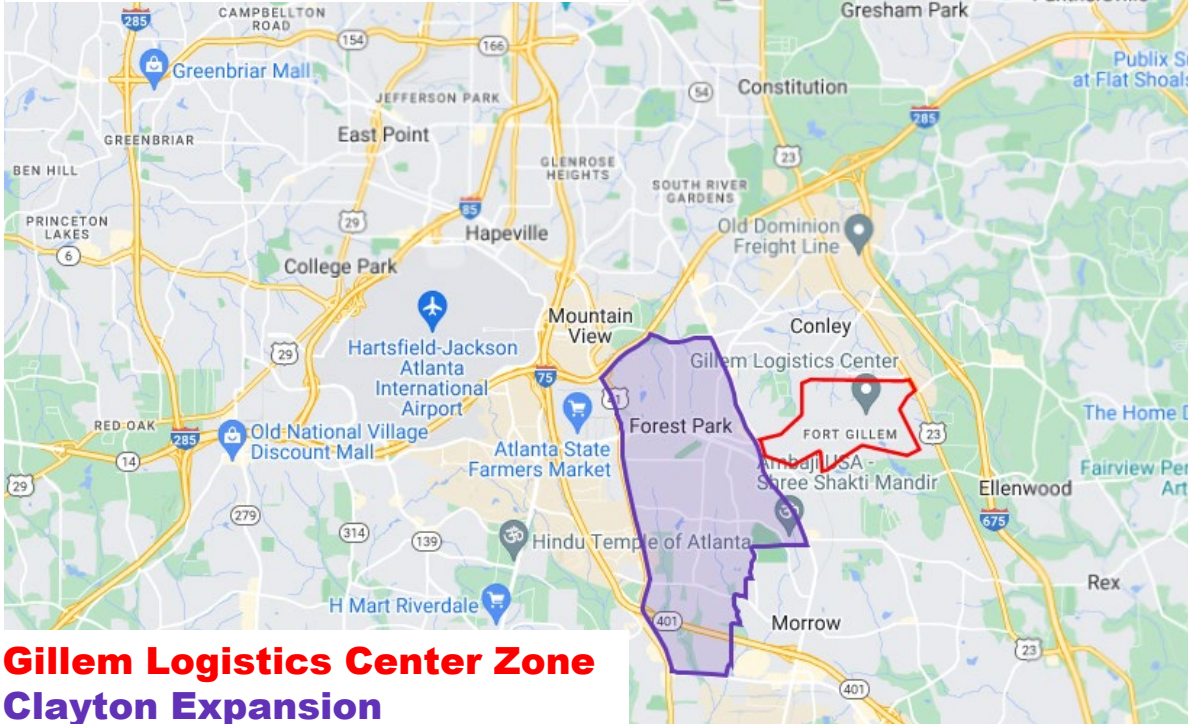
Gillem Logistics Center Zone
Clayton Expansion

North Fulton Expansion
(N. Fulton not included in Phase 1)

Contextualizing the Pilot

Costs

Ridership Potential

Trip Purpose

Findings from Reach Pilot

The findings of the Reach pilot are intended to be an input into MARTA's Bus Network Redesign.

Optimizing Service

How could we have delivered more efficient service, given the ridership we observed?

April 2023   ATL Board of Directors Update

Optimization Methodology

1. We partnered with **3 private sector mobility on-demand technology vendors** for this service optimization exercise.

2. We also worked with Georgia Tech to create a **baseline for the service optimization**.

3. We provided all 3 providers with ridership data (origins and destinations) from **August 31, 2022** (highest ridership day of the pilot).

4. Based on this data, each provider used their simulation engines to determine **1) vehicle requirements, 2) expected service impacts** (i.e., wait times, travel times, ride-sharing).

What's possible, with on-demand?

- The goal of this exercise was to explore what **might be possible**, given different models of on-demand transit available in the market.

- **Vendor 1:** Pre-booking, trip-snapping (improves efficiency by increasing proportion of shared trips by limiting drop-off time periods)

- **Vendor 2:** Flexible operations models

- **Vendor 3:** Has a focus on minimizing the number of dedicated vehicles and brokering trips to transportation network companies (TNCs, like Uber/Lyft).

ATL Board of Directors Update

Optimization Take-a-ways

1. The pilot service over allocated resources given observed ridership levels.

2. The advertised wait-times (15-20 minutes) are achievable with **far fewer resources** (and therefore lower costs).

3. Potential to **expand service** offering (e.g., days & hours of service) while maintaining **similar costs** to pilot service.

4. **Service is scalable** – increases in ridership and number of zones can be met with increases in vehicles.

5. Impact of changes to fixed route bus service were not tested during the Reach pilot.

6. There is opportunity to further optimize the service by allowing pre-booking and commingling ADA and non-ADA trips.

Costs & Staffing Models

Exploring the cost impacts of on-demand transit

April 2023

ATL Board of Directors Update

Reminder: Staffing Assessment

- To understand the potential future of on-demand service at MARTA, we evaluated two potential future scenarios.

Scenario A
Fully Contractor Supported Model

Vendor provides vehicles and is responsible all operations and maintenance.

Scenario B
Fully MARTA Supported Model

MARTA provides vehicles and is responsible for all operations and maintenance.

Costs Analysis Assumptions

- Given that decisions regarding the future of on-demand service are dependent on the outcomes of the NextGen Bus Project, several assumptions were incorporated into this cost analysis:
  - Ridership levels were assumed to be the same as the final day of the pilot (August 31, 2022)
  - Service hours were assumed to be the same as the pilot service (Monday – Friday, 6:00am – 7:00pm)
    - One estimate was collected assuming broader service hours (Monday – Sunday, 4:00am – 1:00am)

- The costs on the next page are for the service ran during the pilot. Any future on-demand service at MARTA would have different costs depending on the number of zones and vehicles.

Costs (Year 1)

Vendor	Scenario A[1] Contractor Supported Model		Scenario B[1] MARTA Supported Model	
	Software	Turnkey	Software	MARTA O&M
Vendor 1	Included	$1.41M	$94,000	$1M (Operations) $1M (vehicles/maintenance)
	Total: $1.4M		Total: $2.1M	
Vendor 2	Included	$1.1M – $1.9M	$78,000	$1M (Operations) $1M (vehicles/maintenance)
	Total: ~1.5M		Total: $2.1M	
Vendor 3	--	--	$77,000	$1M (Operations) $1M (vehicles/maintenance)
	Total: N/A		Total: $2.1M	

The costs are for the service ran during the pilot. Any future on-demand service at MARTA would have different costs depending on the number of zones and vehicles.

[1]Costs assume 7 vehicles.

Sample Costs (Year 2 & 3)

Vendor	Scenario A[1] *Contractor Supported Model*		Scenario B[1] *MARTA Supported Model*	
	Software	Turnkey	Software	MARTA O&M
Vendor 1	*Included*	$1.45M (Y2) $1.50M (Y3)	$64k (Y2) $67k (Y3)	$1M *(Operations)* $300k *(Maintenance)*
	Total: $1.45M (Y2), $1.50M (Y3)		*Total: $1.36M (Y2), $1.37M (Y3)*	
Vendor 2				
Vendor 3	--	--	$67k (Y2)	$1M *(Operations)* $300k *(maintenance)*
	Total: N/A		*Total: $1.36M (Y2)*	

ATL Board of Directors Update

Putting it all together

Developing a vision for the future of on-demand transit at MARTA

April 2023

ATL Board of Directors Update

On-demand can work at MARTA

First/Last Mile

- However, **on-demand is not a one-size fits all.**
- To work as a first/last mile solution on-demand must be a part of the broader public transportation network:
    - The service must connect to other transit services that are **highly frequent and reliable.**

Community Circulation

- On-demand can also work for local trips given the community demographics and needs:
    - For this the service should connect to **key community points of interest** (e.g., schools, hospitals, grocery stores, major employers, or other key POIs)
    - The service should also connect to "trip drivers" or key centers of trip generations, like **housing centers** (esp. those with high % of car-free households) or **areas with high job density**

Recommendations for MARTA's NextGen Bus Project

1. **Evaluate the potential use-cases for on-demand:**
   - Deliver service in the places where there is limited service available today
   - Address underperforming fixed bus route routes with on-demand transit
   - Provide a solution to the first-mile/last-mile problem
   - Create community circulators to connect potential riders to POIs

2. **In each location determine which use-case we're addressing**
   - Do the zone demographics, land-use, overlapping fixed route transit, and other factors support the use-case?

3. **Ensure that on-demand is a good fit operationally**
   - Do the expected passengers per vehicle hour work with on-demand (i.e., 4-8 p/vh)?

Recommendations for MARTA's NextGen Bus Project (cont.)

4. **Plan cost assumptions based on a MARTA-operated model**

   - Incorporate cost assumptions of MARTA operated model into NextGen Bus Project
   - Develop an RFP for on-demand software services
   - Begin developing an operational plan for new mode of MARTA Bus Operations

Recommendations for MARTA Operations

- **Start commingling ADA and non-ADA trips on on-demand service**
  - There is potential to improve paratransit operations by commingling ADA and non-ADA trips (allowing paratransit patrons to access same day booking)

Reach Next Steps
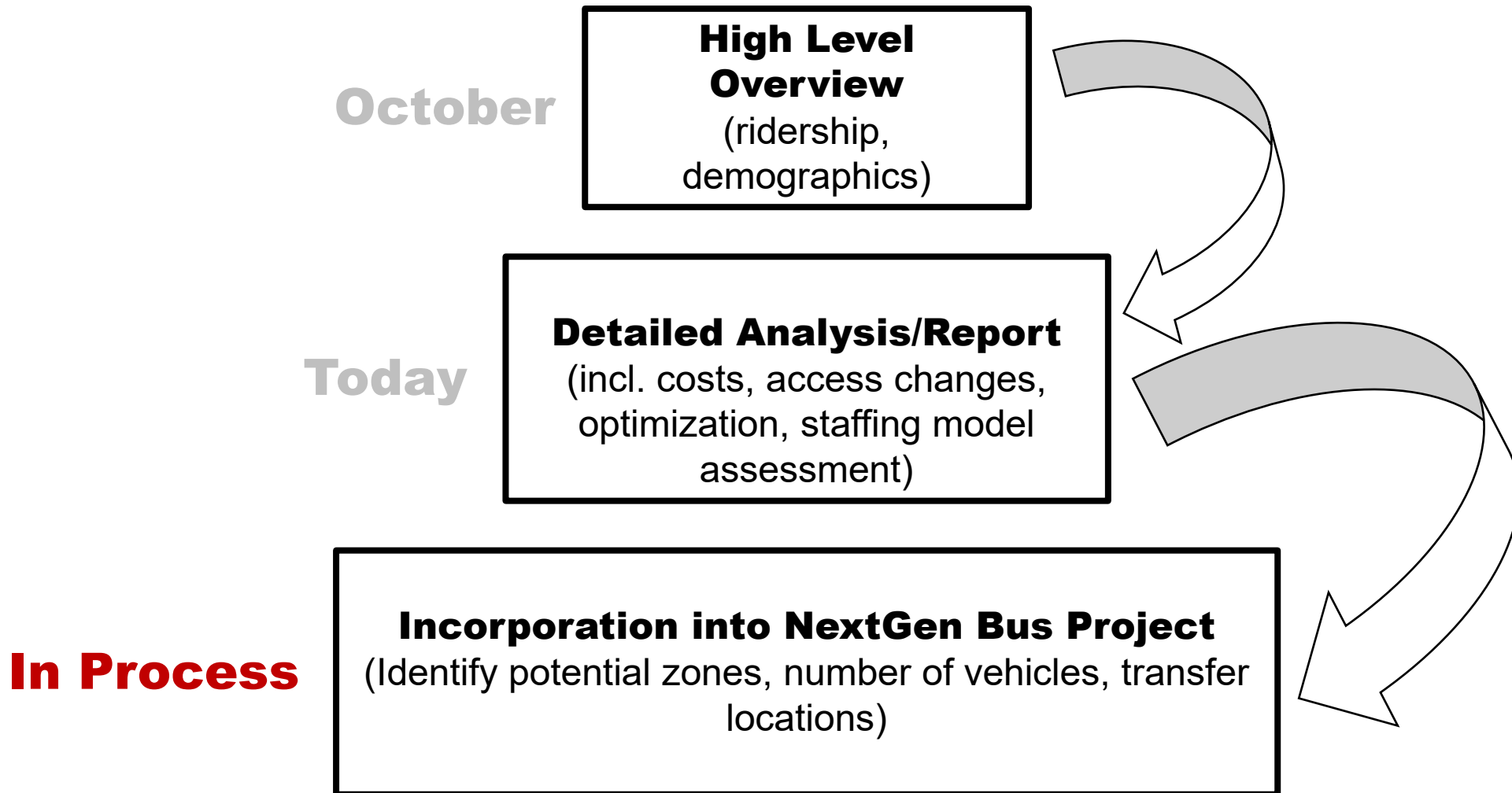
October

High Level Overview
(ridership, demographics)

Today

Detailed Analysis/Report
(incl. costs, access changes, optimization, staffing model assessment)

In Process

Incorporation into NextGen Bus Project
(Identify potential zones, number of vehicles, transfer locations)

Thank you!

More information at
www.itsmarta.com/reach

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Experience Innovation
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ATLANTA-REGION TRANSIT LINK AUTHORITY
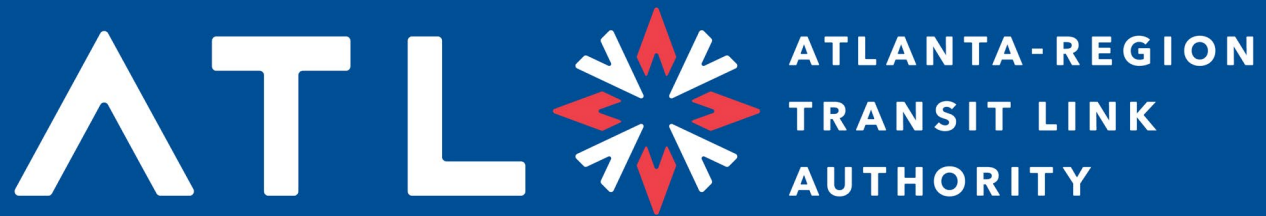
ATL RIDES BETA TESTING UPDATE

Abby Marinelli
Transit Funding Manager

April 6, 2023

ATL RIDES

ATL RIDES is the region's first multi-agency trip planning app that provides real-time arrival information.

►Demand for a robust, cross-jurisdiction trip planner that included key customer-focused tools like real-time arrival and departure data led to a partnership among the region's transit agencies

►The ATL RIDES project began in 2019 when ATL applied for an Integrated Mobility Innovations (IMI) grant.
  • ATL partnered with IBI Group to develop the app and with local transit agencies and GDOT to provide data to the app
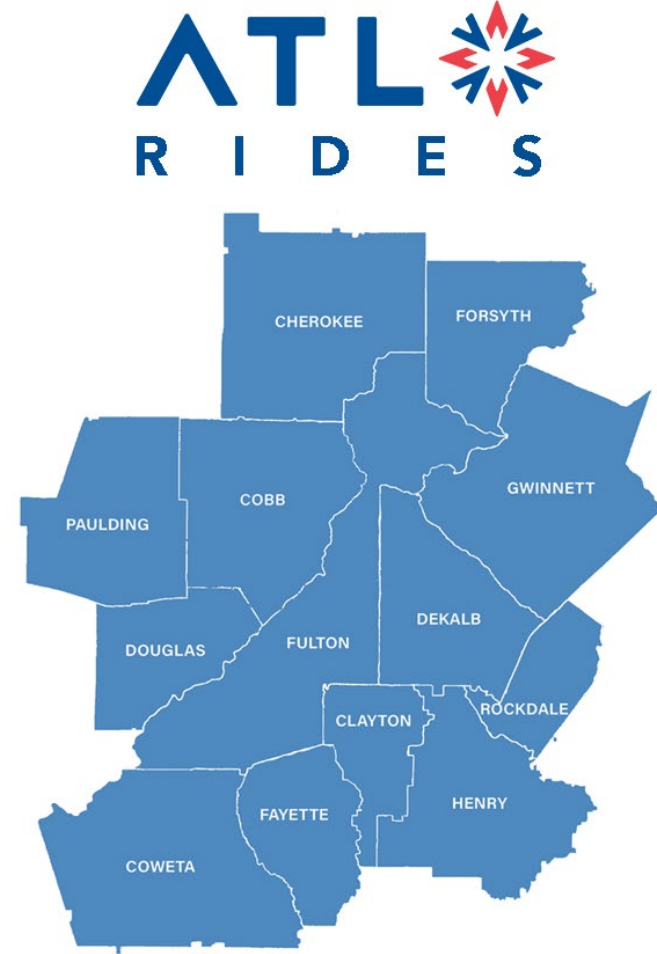
ATL RIDES

	ATL RIDES	Google Maps
Trips across agencies	✅	✅
Multi-modal options	✅	✅
Multiple language support	✅	✅
Automatic fare calculation	✅	⊗
Real-time reliability information	✅	⊗

► ATL hosted GTFS-Real Time development workshops with partner agencies to prepare for feed consumption by ATL RIDES.
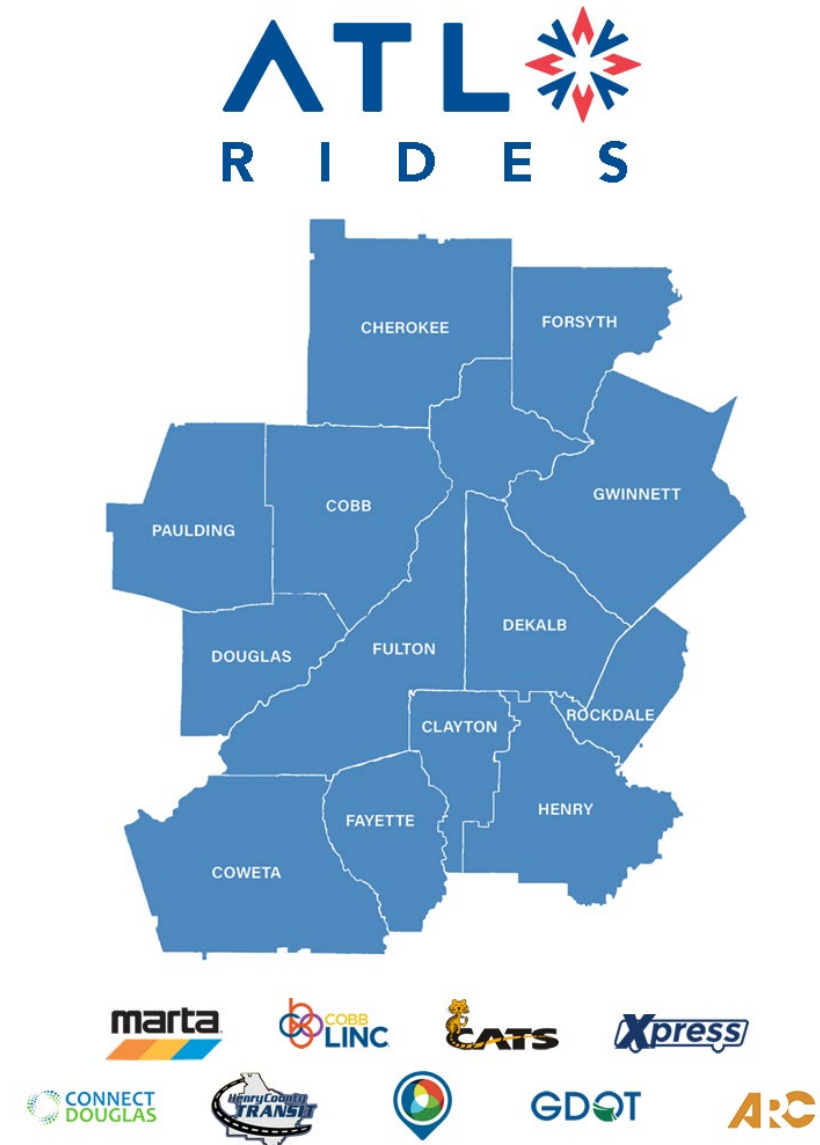
ATL RIDES IS NOW IN BETA TESTING

►ATL RIDES opened for beta testing on March 1, 2023.

►Project partners, transit advocacy groups, and other IMI grantees across the US were invited to test ATL RIDES.

- Lexington, KY
- State of Delaware
- State of Minnesota
- Pinellas County, FL
- San Joaquin, CA
- Indianapolis, IN

- Stanislaus, CA
- Denver, CO
- Kansas City, KS
- Cook County, IL
- Matanuska-Susitna, AK

►User feedback is being incorporated into ongoing updates.

►The full launch of ATL RIDES will occur in Summer 2023.
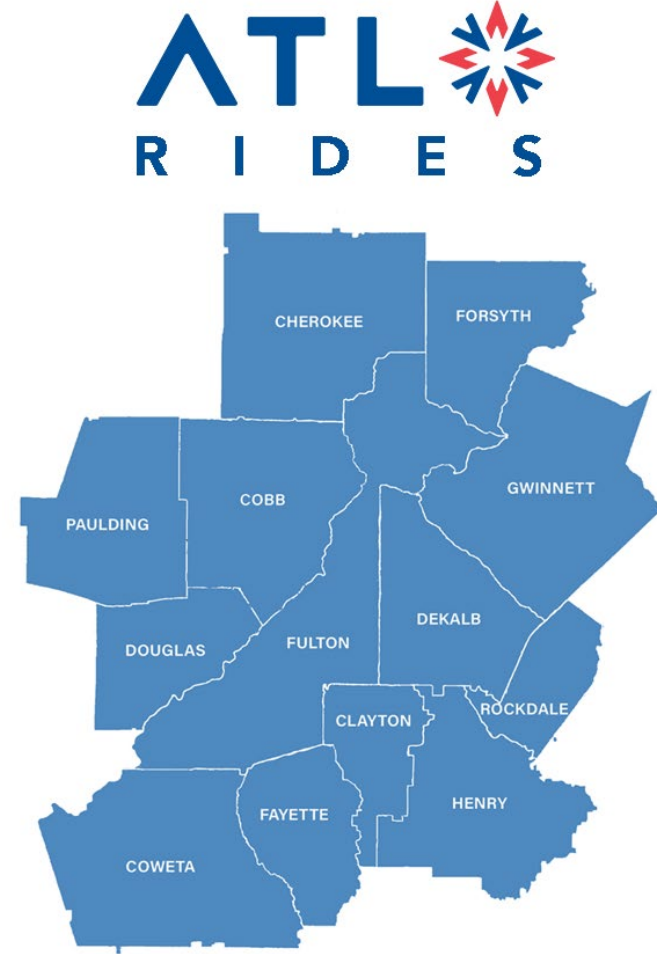
Search start and end locations

Specify trip preferences:

- Mode

- Wheelchair accessibility

- Walking distance and speed

Route options and directions

Real Time information
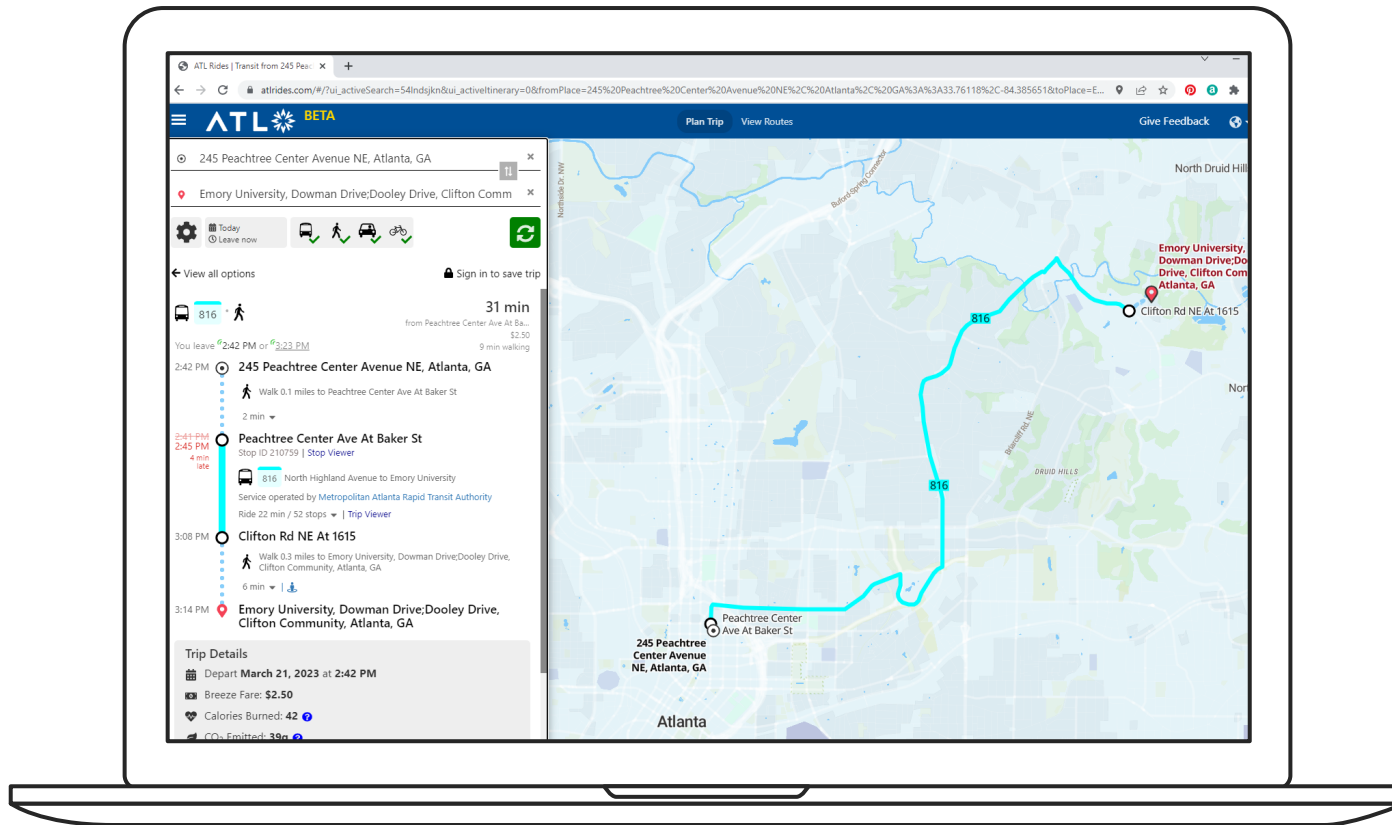
Trip details

GET ACCESS TO THE BETA TEST

▶ In a browser, go to www.atlrides.com

▶ Request access to the ATL RIDES app

Thank you!

Questions?

ADJOURN

The Regional Transit Planning Committee Meeting
Will Begin Momentarily