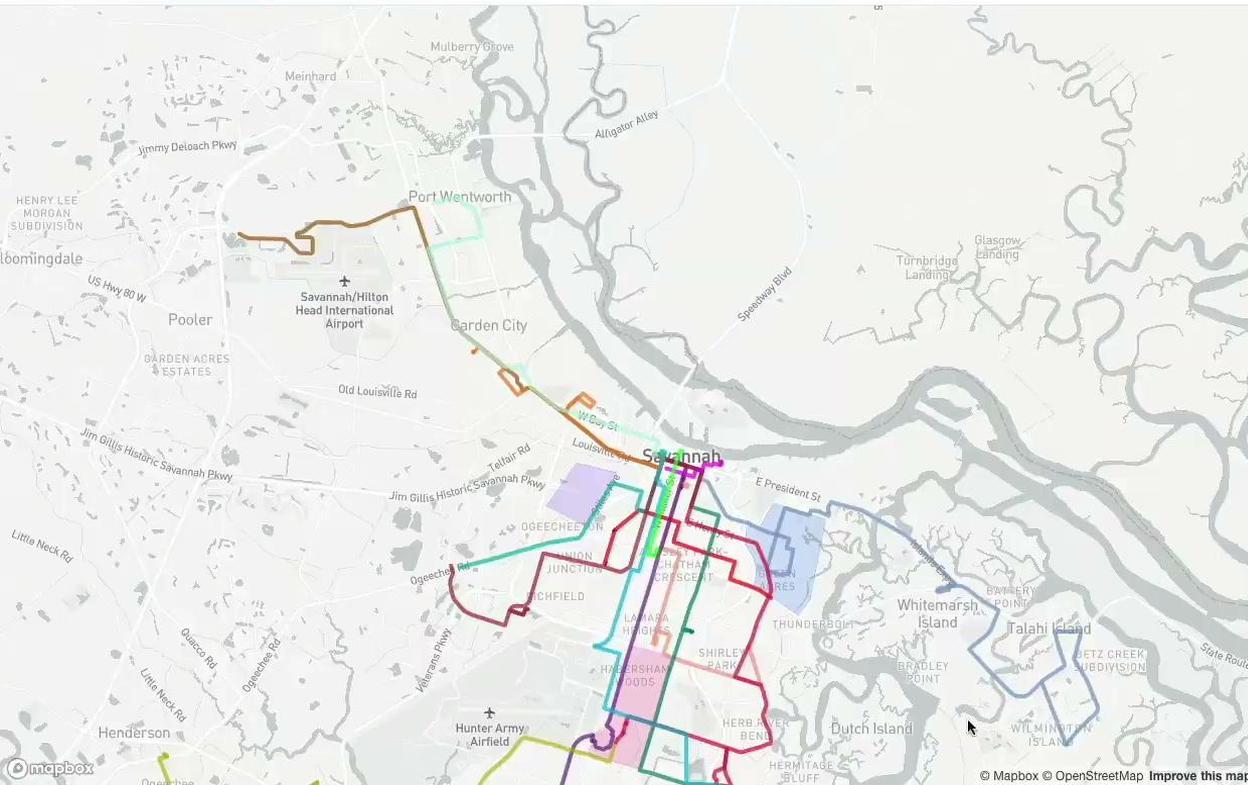


# Ontra Mobility Planning Platform

MUG June 2025





### Network Overview

Optimization results for the transit network

Key Metrics

Efficiency

Time Metrics

Hourly Data

👤 Daily Ridership

**83,954** ↑ 17.6%

💰 Operating Cost

**\$217,776** ↓ 9.1%

🕒 Avg Load Factor

**64.44%** ↑ 11.1%

📈 Cost Recovery

**45.86%** ↑ 17.5%

Routes ZONES

Zone	Name	Ridership	Wait Time	Cost	Recovery
Z1	Eastside	1,850	8.2 min	\$8,200	62%
Z2	Carver Village	1,250	9.5 min	\$6,800	55%
Z3	Kensington Park	980	10.2 min	\$5,400	48%



# Our Background

- OR PhDs from Georgia Tech, Google SWEs

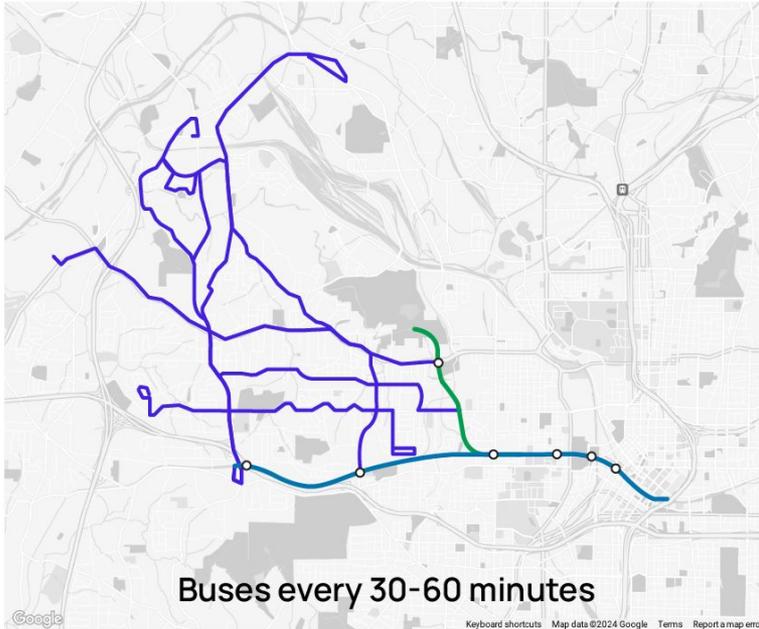


- Previously worked with: DDOT (Washington D.C.), MARTA (Atlanta, GA), CAT (Savannah, GA), and more ...

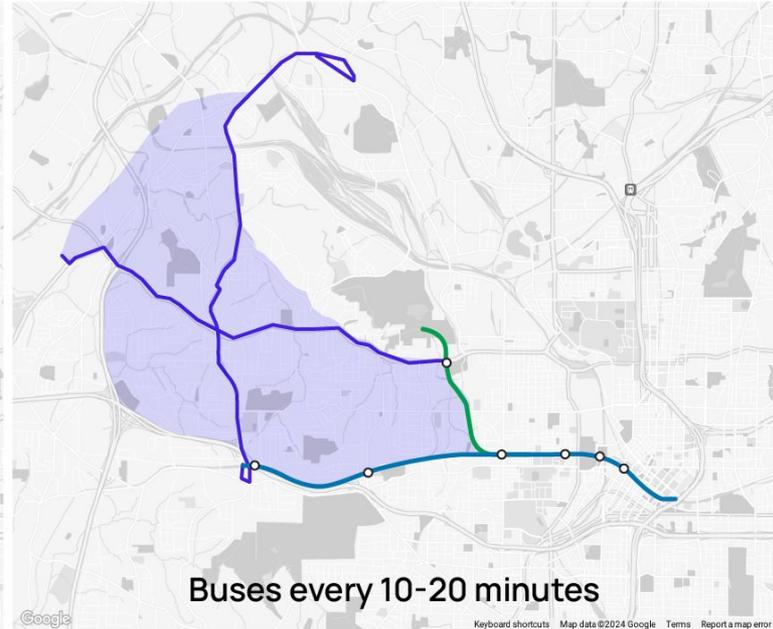


# Increased Ridership, Coverage Efficiency

Before 6 bus lines



After 2 bus lines + on-demand service



# Making it easy to optimize your network

## Getting started

Set up your first event

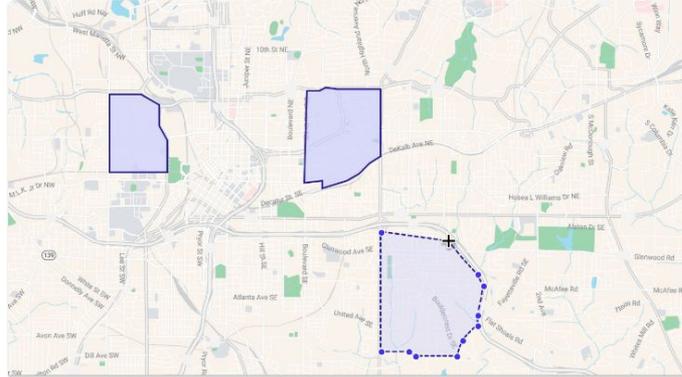
 3/7 completed

- ✓ Fill out details
- ✓ Create theme
- ✓ Add GTFS
- 📍 Add On-Demand Zones**
- 📊 Simulation & Analysis
- 👤 Invite team
- 🚀 Launch your service

## Recommended on-demand zones

Click on the map to edit the zones

🔍 Search



Already have a shape or geojson file?

 Upload

 Reset

 Done

Skip

Next

**Results Page**  
This page is where you can view in-depth optimization results

**Map**

**Results**

**Route/Zone Table**

Route	Ridership	Frequency	Cost	Recovery
7D	9,940	25 min	\$27,840	51.5%
31	8,959	27 min	\$21,995	27.4%
7F	8,352	21 min	\$24,941	41.7%
14	7,113	10 min	\$18,466	28.6%

**Network Overview**  
Optimization results for the transit network

Key Metrics | Efficiency | Time Metrics | Hourly Data

- Daily Ridership: **83,954** ↑ 17.6%
- Operating Cost: **\$217,776** ↓ 9.1%
- Avg Load Factor: **64.44%** ↑ 11.1%
- Cost Recovery: **45.86%** ↑ 17.5%

# Key Metrics

Optimize and forecast key metrics for the transportation network

## Network Overview

Optimization results for the transit network

Key Metrics

Efficiency

Time Metrics

Hourly Data

👤 Daily Ridership

**83,954** ↑ 17.6%

💰 Operating Cost

**\$217,776** ↓ 9.1%

🕒 Avg Load Factor

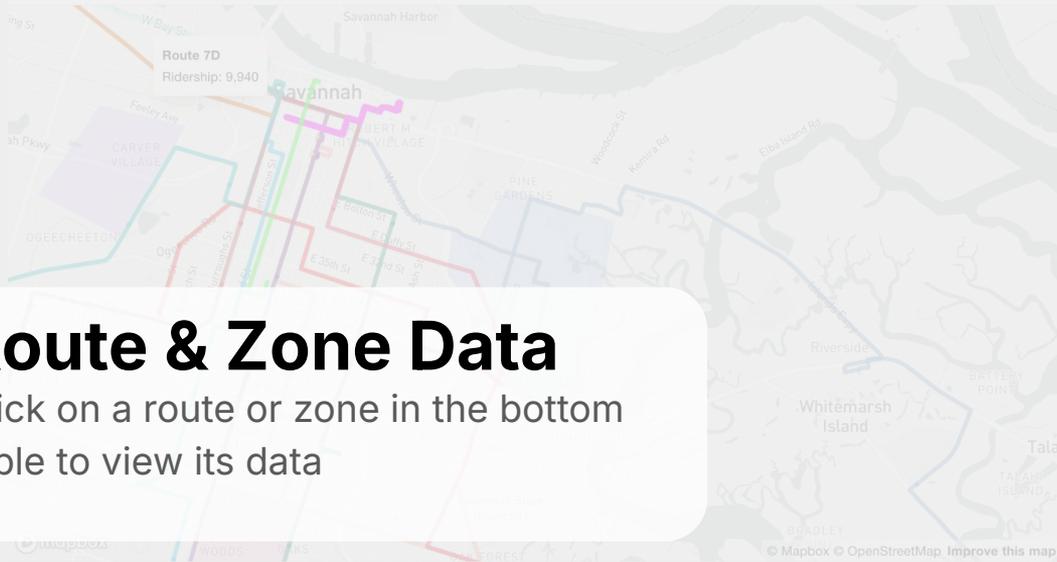
**64.44%** ↑ 11.1%



↔️ Cost Recovery

**45.86%** ↑ 17.5%





**Route & Zone Data**  
 Click on a route or zone in the bottom table to view its data

← Back **Route 7D**

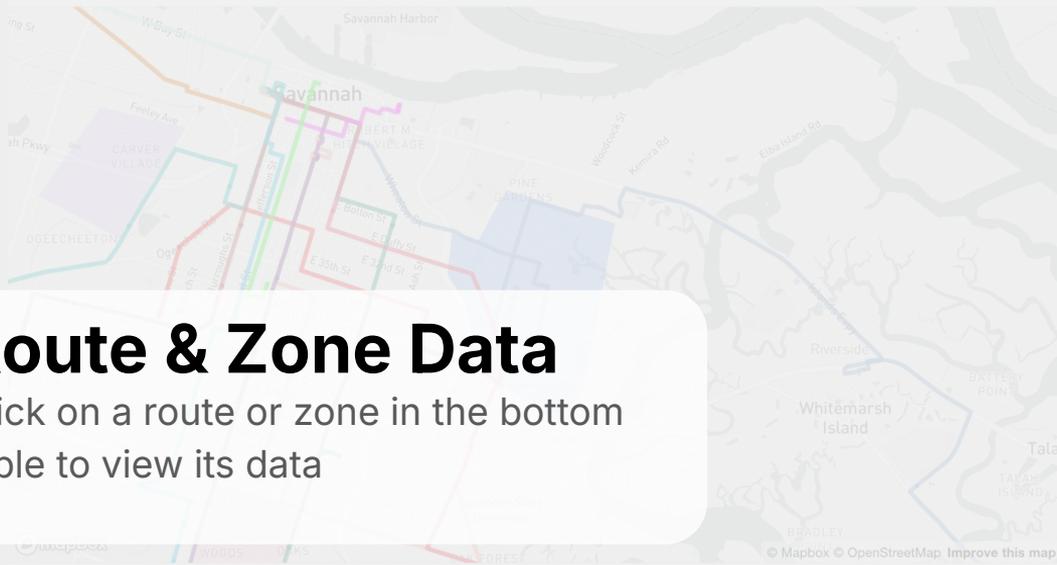
Overview Efficiency Hourly Data Stops

👤 Daily Ridership \$ Operating Cost  
**9,940** **\$27,840**

🕒 Load Factor ↔️ Cost Recovery  
**44.5%** Network Avg: 64.44% **51.5%** Network Avg: 45.86%



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# Route & Zone Data

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## Zone Z1: Eastside

Overview Efficiency Hourly Data

Daily  
**Ridership**  
**1,850**

Daily  
**Operating Cost**  
**\$8,200**

Zone  
**Load Factor**  
**75%**

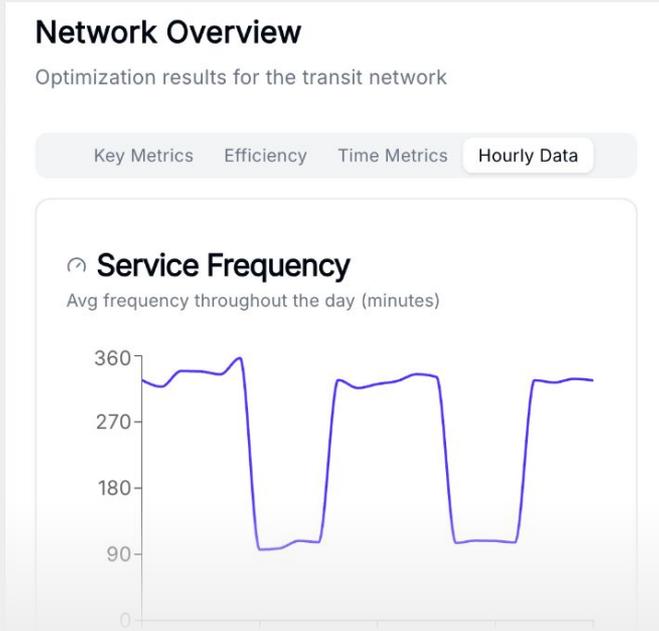
Zone  
**Recovery Ratio**  
**62%**

Average  
**Wait Time**  
**8.2 min**

Average  
**Trip Time**  
**12.5 min**

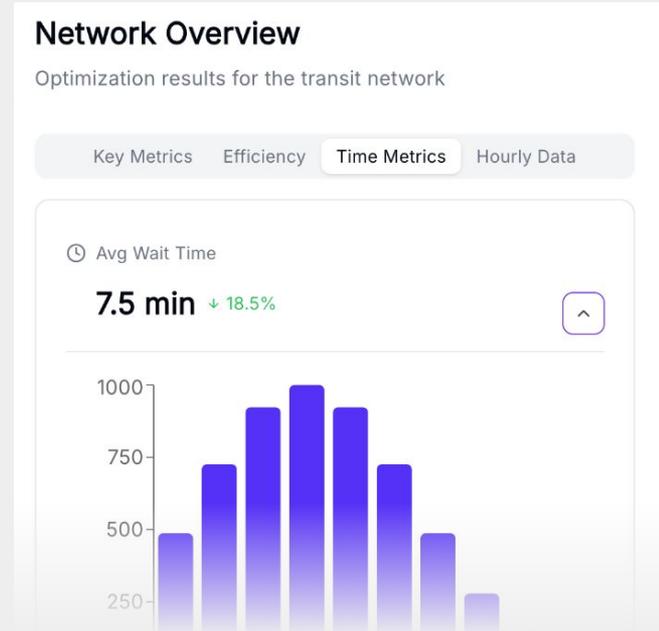
# Network Overview

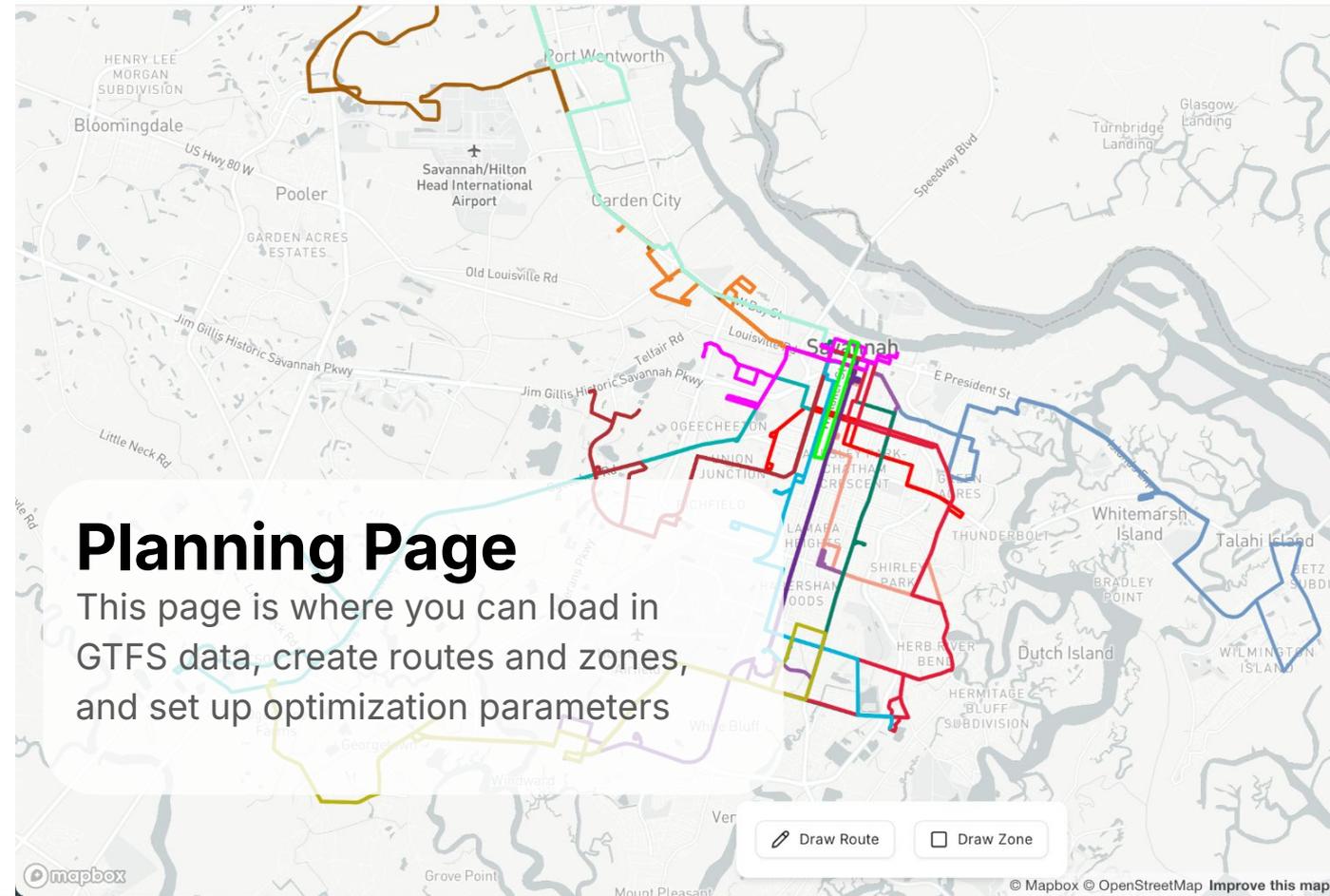
## Hourly Data



# Network Overview

## Time Metrics





# Planning Page

This page is where you can load in GTFS data, create routes and zones, and set up optimization parameters

📍 Draw Route

📐 Draw Zone

## Optimization Profile

Ridership

Cost

## Routes

- Lock all routes
- Consolidate route patterns
- Hide all lines on map

Route name or mode (bus, subway, tram etc.)

- 🔗 Route 3 (6 patterns) > 🔒 👁
- 🔗 Route 4 (2 patterns) v 🔒 👁
- 🔗 4 (Direction 0) (1.5000001... 🔒 👁
- 🔗 4 (Direction 1) (1.3333333... 🔒 👁
- 🔗 Route 5 (4 patterns) > 🔒 👁
- 🔗 Route 6 (2 patterns) > 🔒 👁

## Zones

No zones created yet

## Service Parameters

\$/hour

\$/mile

\$/km

# Data Import

# Run Button

Map

The screenshot displays the Ontra Planning Platform interface. At the top left, there is a 'Menu' icon and a blue button labeled 'Import Data'. The main area is a map of Savannah, GA, showing streets and landmarks like the Savannah River and the Hyatt Regency Hotel. At the top right, there is a 'Versions' section with a blue button labeled 'Run Optimization'. On the right side, there is a 'Properties' panel with the following settings:

- Optimization Profile:** 'Ridership' (selected) and 'Cost'.
- Routes:** 'Consolidate route patterns' (unchecked), 'Route New Route' (1 patterns).
- Zones:** 'No zones created yet'.
- Service Parameters:** '\$/hour' (selected), '\$/mile', '\$/km'.
  - Vehicle Costs (\$/hour): Shuttle Bus (90), Transit Bus (150), Articulated Bus (200), Commuter Bus (200).
  - Service Frequencies: 7.5 min, 15 min (selected), 30 min, 60 min.
- Service Hours:** (empty field).

At the bottom center, there is a 'Drawing Tools' panel with two buttons: 'Draw Route' (with a pencil icon) and 'Draw Zone' (with a square icon).

Optimization Settings

# Drawing Tools

# Drawing routes

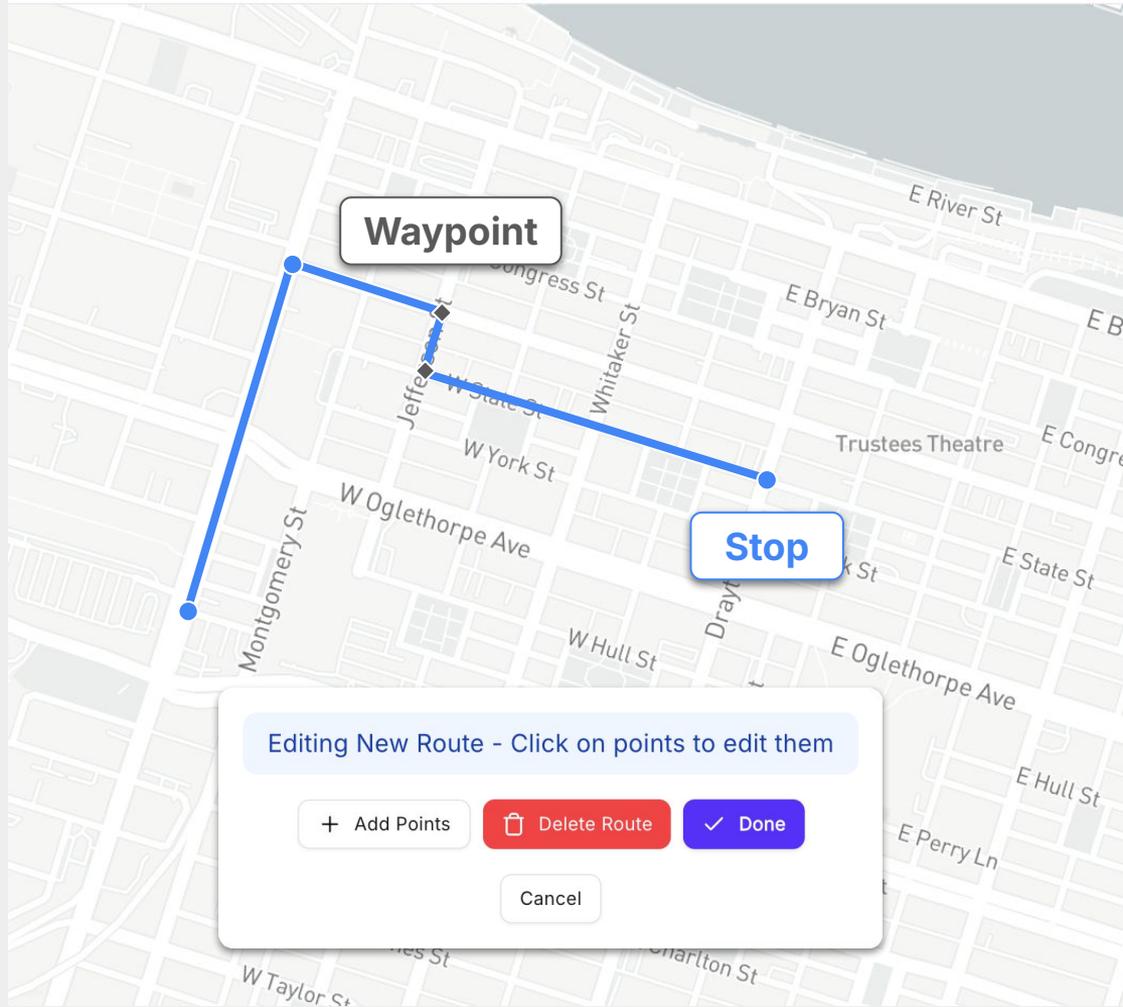
● Stop: Point along route that the bus will stop at.

◆ Waypoint: Point used to guide the route.



Draw Route

Draw fixed routes



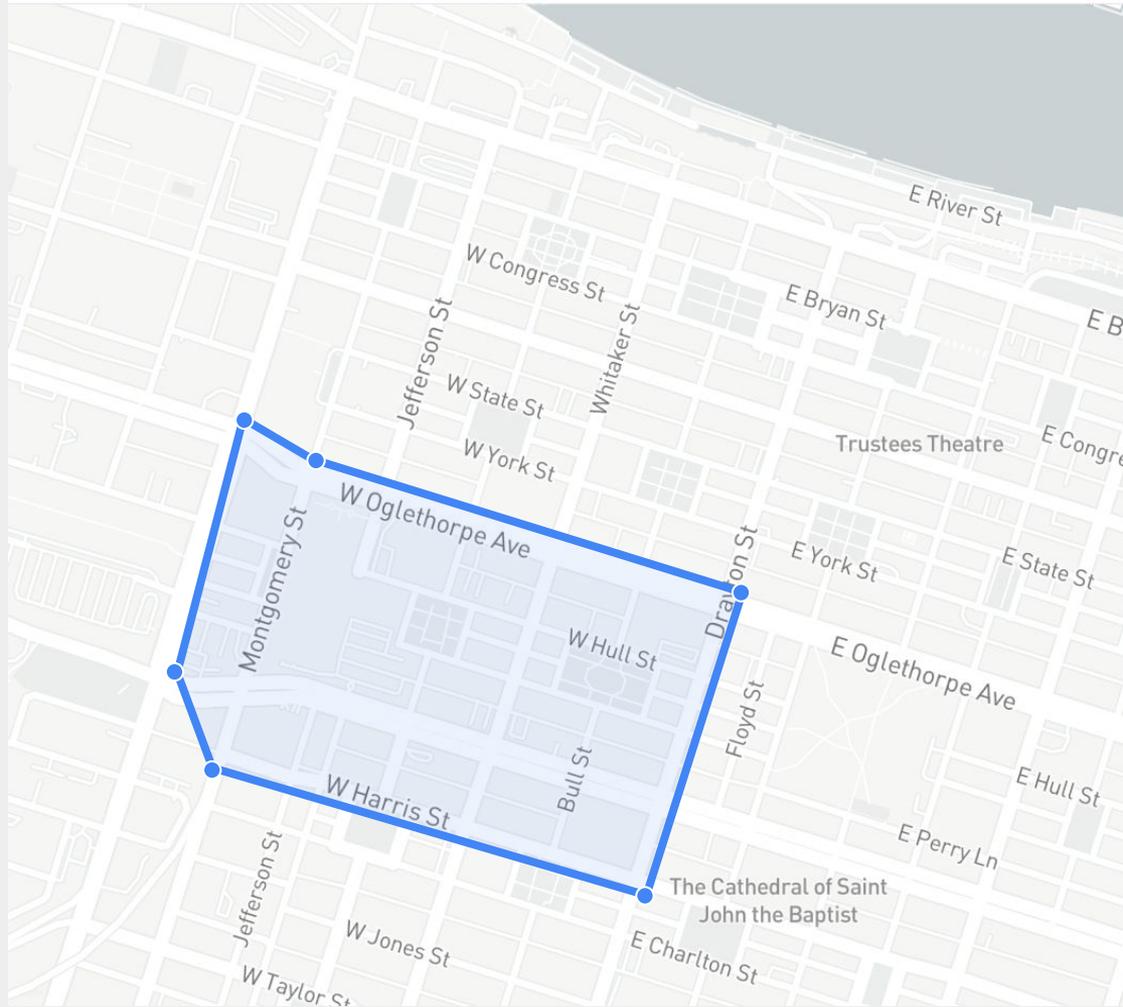
# Drawing Zones

Zones are areas where on-demand transit will operate. You can use the drawing tools to define these zones as polygons on the map.

Similar to routes, you can click a completed zone to edit it.

Draw Zone

Draw on-demand transit zones



# Choose Service Parameters and Optimize

Adjust service parameters as needed then optimize your network.

 Run Optimization

Service Parameters ▼

\$/hour  \$/mile  \$/km

Vehicle Costs (\$/hour)

Shuttle Bus	Transit Bus
<input type="text" value="90"/>	<input type="text" value="150"/>
Articulated Bus	Commuter Bus
<input type="text" value="200"/>	<input type="text" value="200"/>

Service Frequencies

Service Hours

M  T  W  T  F  S  S

Fare (\$/trip)

Bus	Shuttle
<input type="text" value="2.9"/>	<input type="text" value="3.5"/>

# Thank you!

**Contact info:**

**Anthony Trasatti, PhD**  
[anthony@ontramobility.com](mailto:anthony@ontramobility.com)

**Connor Riley, PhD**  
[connor@ontramobility.com](mailto:connor@ontramobility.com)