



GA/TN APA Conference
October 7, 2021

Trail Oriented Development





Agenda

1. Principles of first- and last-mile trail connectivity
2. Network connectivity
3. Corridor Design
4. Trailheads

INTRODUCTION

Why does trail access matter?

Big Creek Greenway
ALPHARETTA, GA



Marconi Dr

Marconi Dr

Big Creek Greenway

Atlanta BeltLine ATLANTA, GA



Charles Allen Dr

10th St NE

9th St NE

Charles A

Midtown High School

Park Tavern

Monroe Dr NE

Kanuga St NE

Cresthill Ave NE

Cooledge Ave NE

Virginia Ave NE

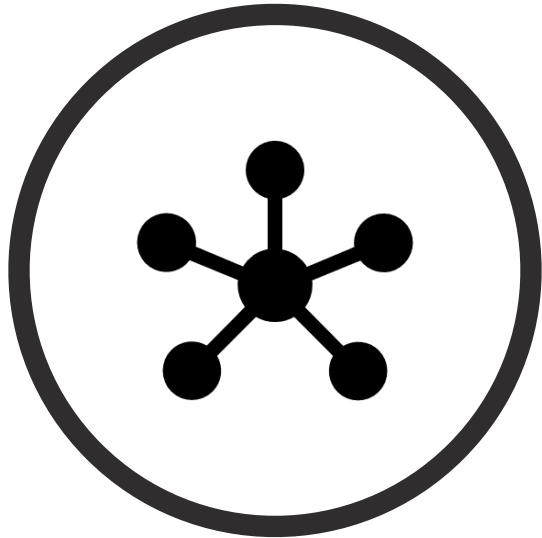
Virginia Highlands Apartment Home

Trader Joe's

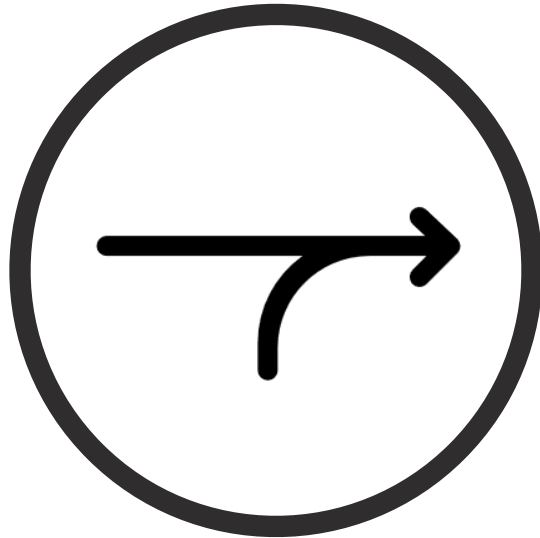
Atlanta BeltLine East

Trail access occurs at three scales:

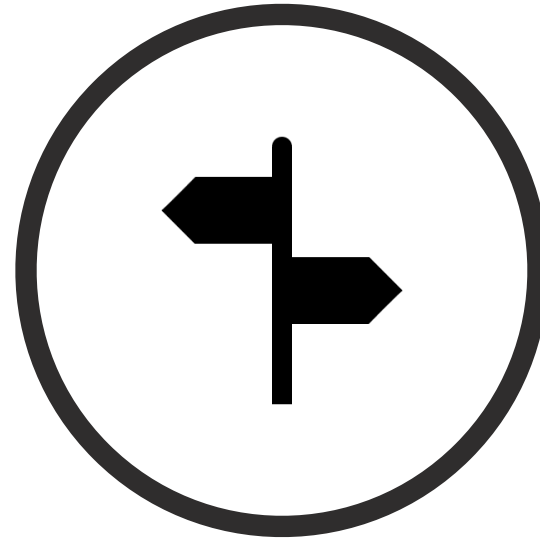
NETWORK



CORRIDOR



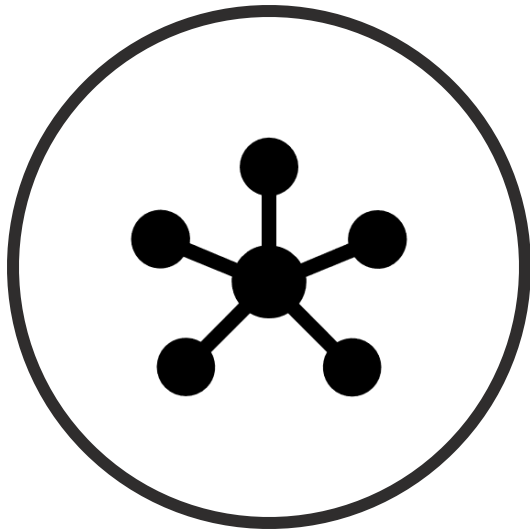
TRAILHEAD





NETWORK

Design the area's active transportation
network to support trail access



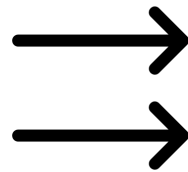
Network Connectivity

Network connectivity refers to the **density and directness of the overall street grid.**

GOALS OF THE STREET NETWORK



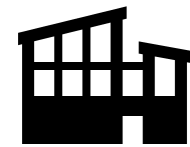
**Direct
Routes**



Redundancy



**Overcoming
major barriers**



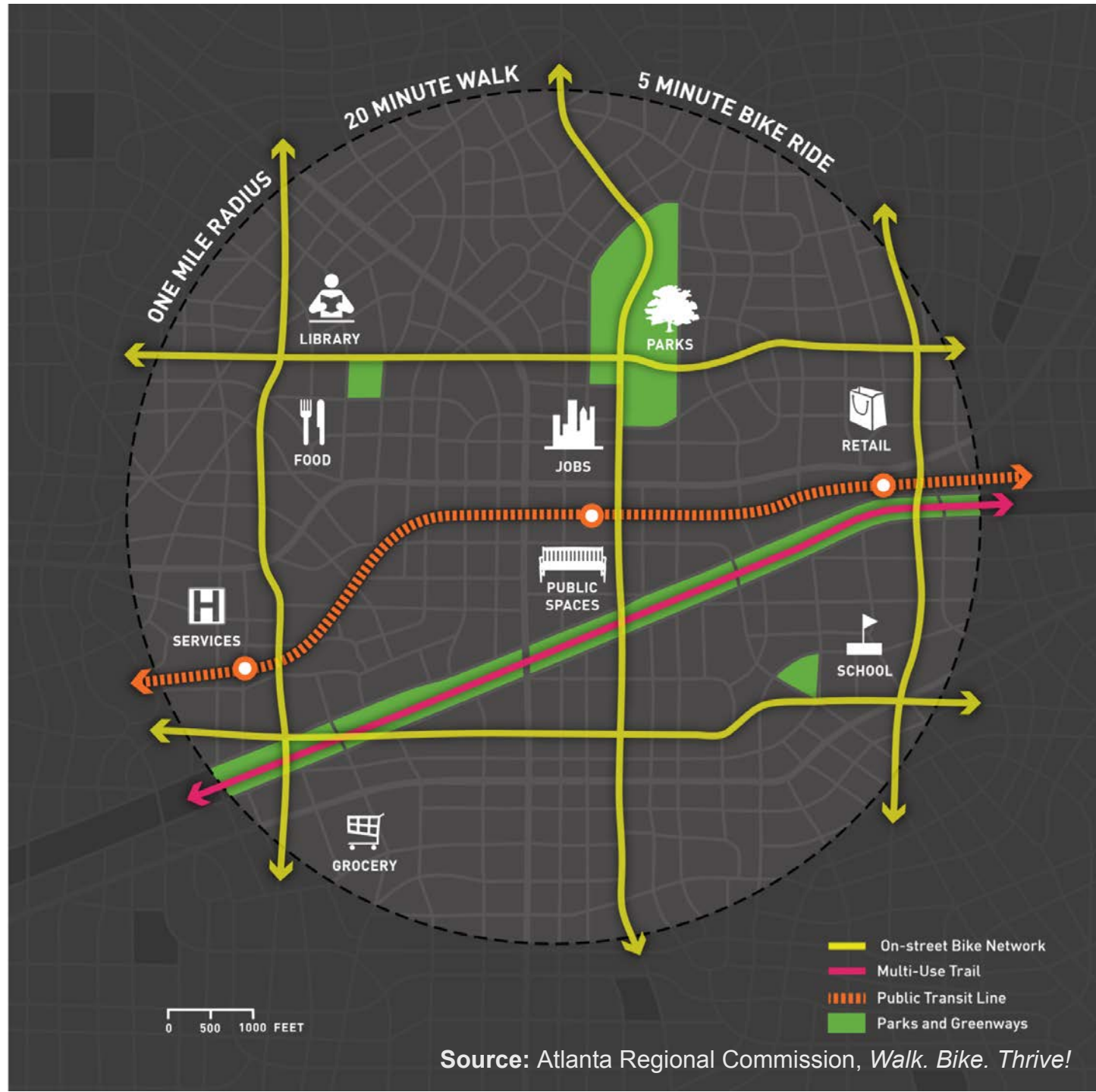
**Connections
to major
destinations**



NETWORK

The 20-minute neighborhood

- Connected **street grid**, ideally with 300-600 foot block lengths
- **Connected bicycle network** featuring bikeways at least every half mile
- Convenient **connections to trails** and transit

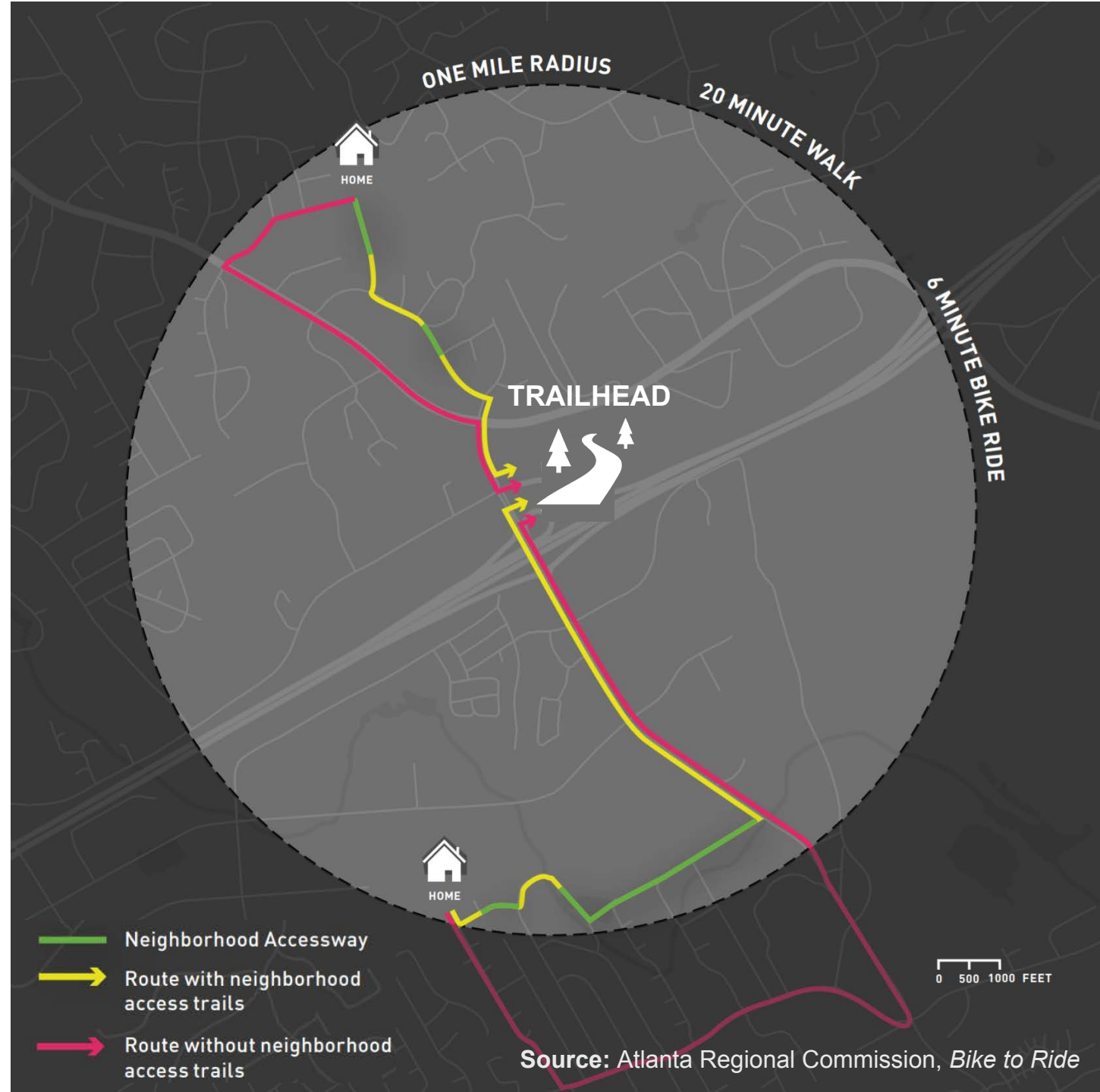




NETWORK

Neighborhood Accessways

- **Short trail segments between disconnected streets** (e.g. cul-de-sacs) that enable more direct, lower-stress routes for people walking and bicycling
- Allow users to **reduce out-of-direction travel and circumvent busier roadways**





NETWORK

Connect Atlanta

- City of Atlanta's 2014 Transportation Plan used the planned BeltLine loop as an organizing principle for its intown biking network



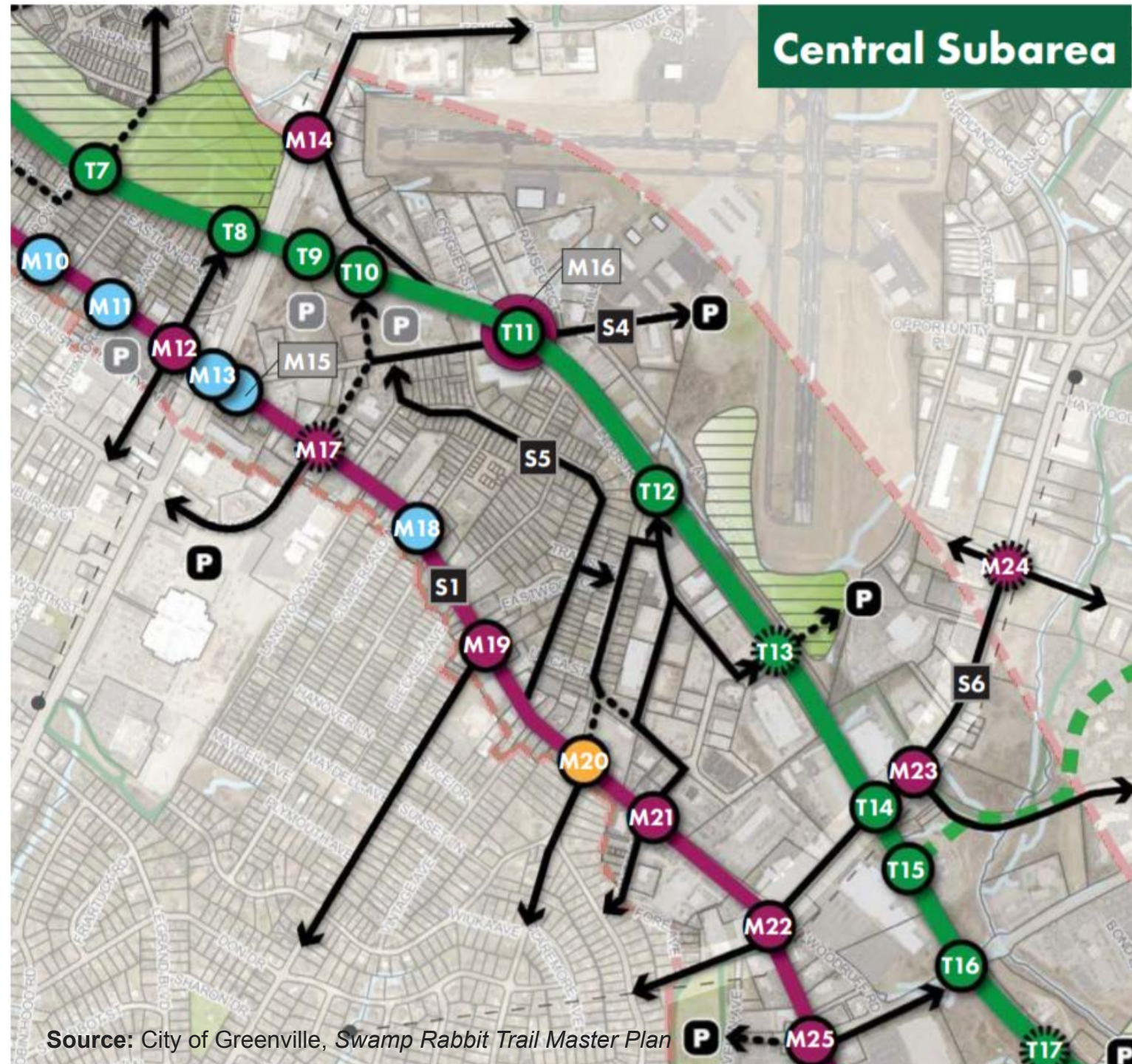
Source: City of Atlanta, *Connect Atlanta*



NETWORK

Swamp Rabbit Trail Extension

- City-led plan identified vital connections to and from the future trail and nearby destinations
- Connections include both existing streets to improve, and future streets to be constructed with trail-oriented development

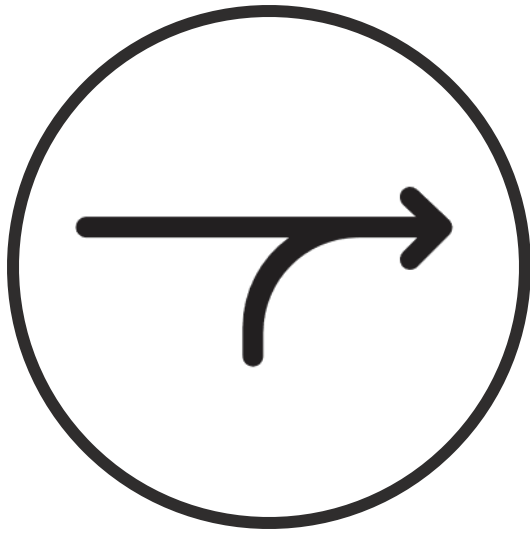


Source: City of Greenville, Swamp Rabbit Trail Master Plan



CORRIDOR

Each **corridor** in the surrounding network should be **designed as a complete street**



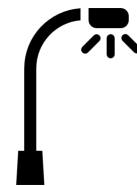
Corridor Design

Each corridor should be designed with adequate accommodations to connect people on foot and bike to the trail.

GOALS OF CORRIDOR DESIGN



Safety



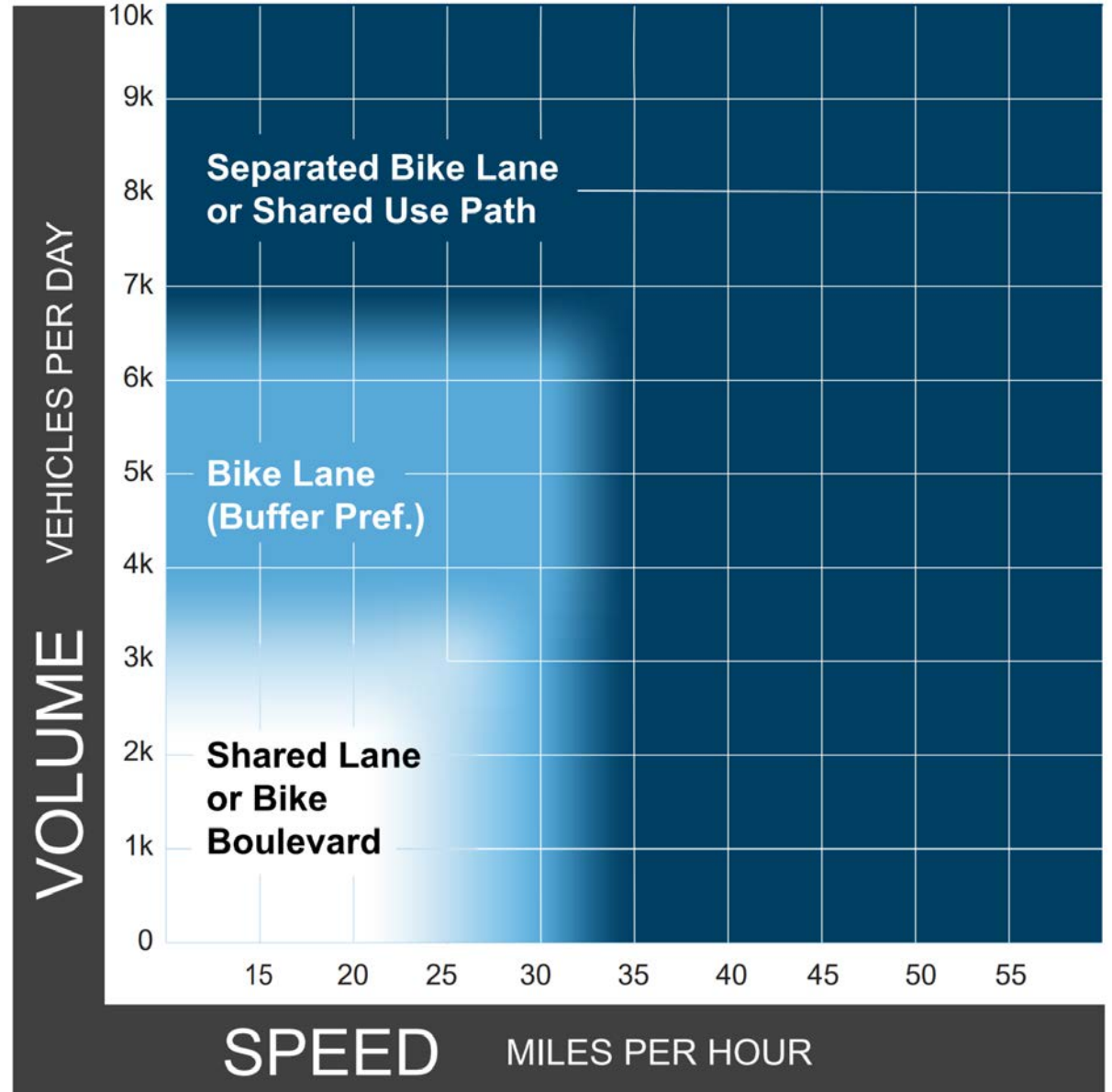
Comfort



CORRIDOR

Bikeway Selection

- Use FHWA's *Bikeway Selection Guide* to determine the preferred type of infrastructure for the corridor

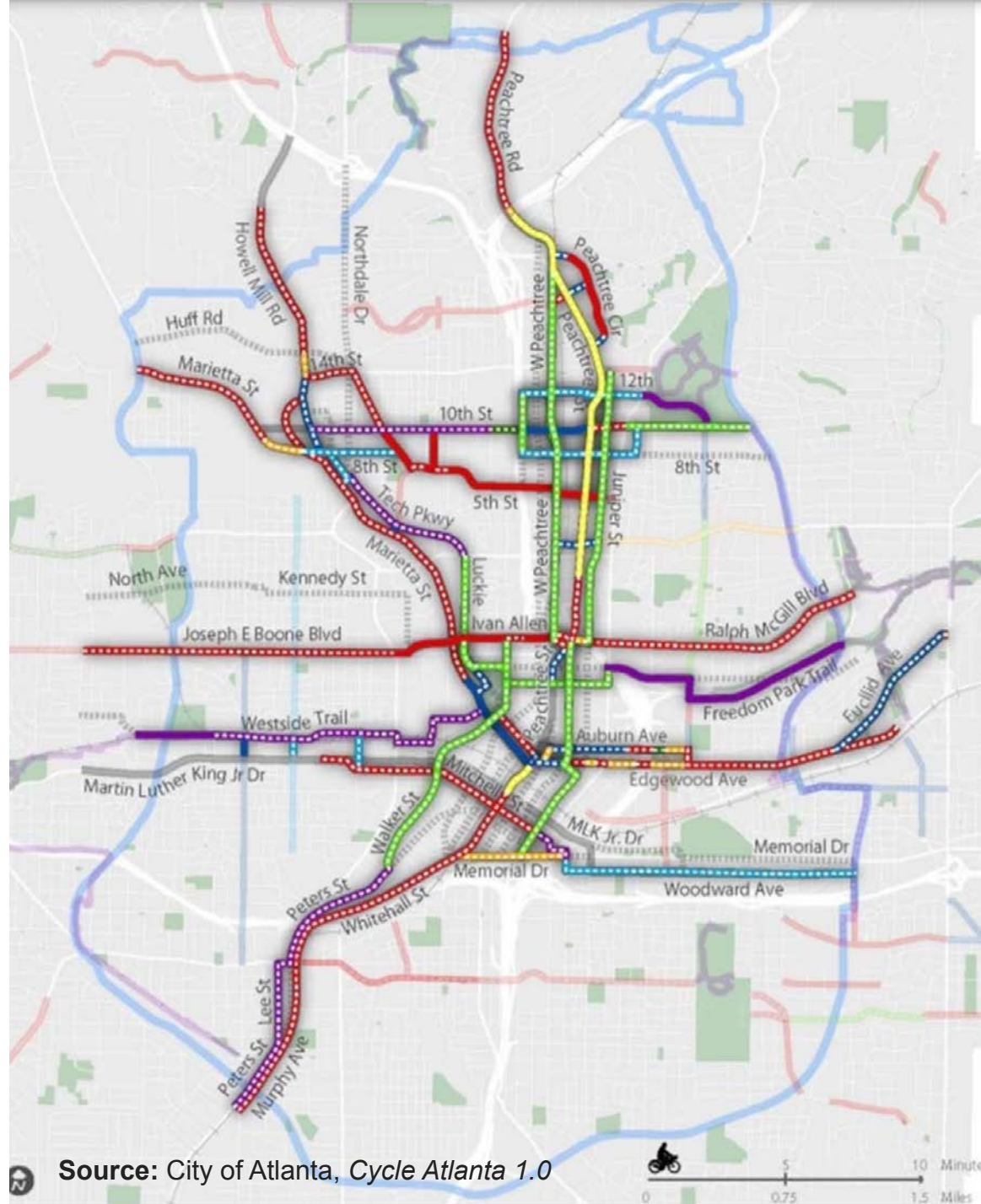




CORRIDOR

Cycle Atlanta 1.0

- Took the network recommendations from *Connect Atlanta*, and assigned corridor schematics
- Plan was a technical report aimed at direct implementation



Atlanta BeltLine

ATLANTA, GA

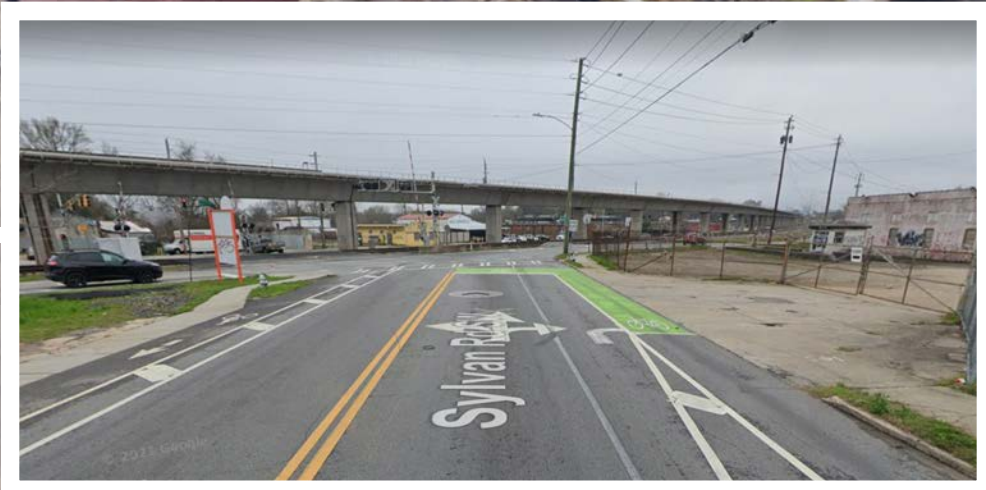
the Meadow



Atlanta BeltLine ATLANTA, GA



T Z Automotive

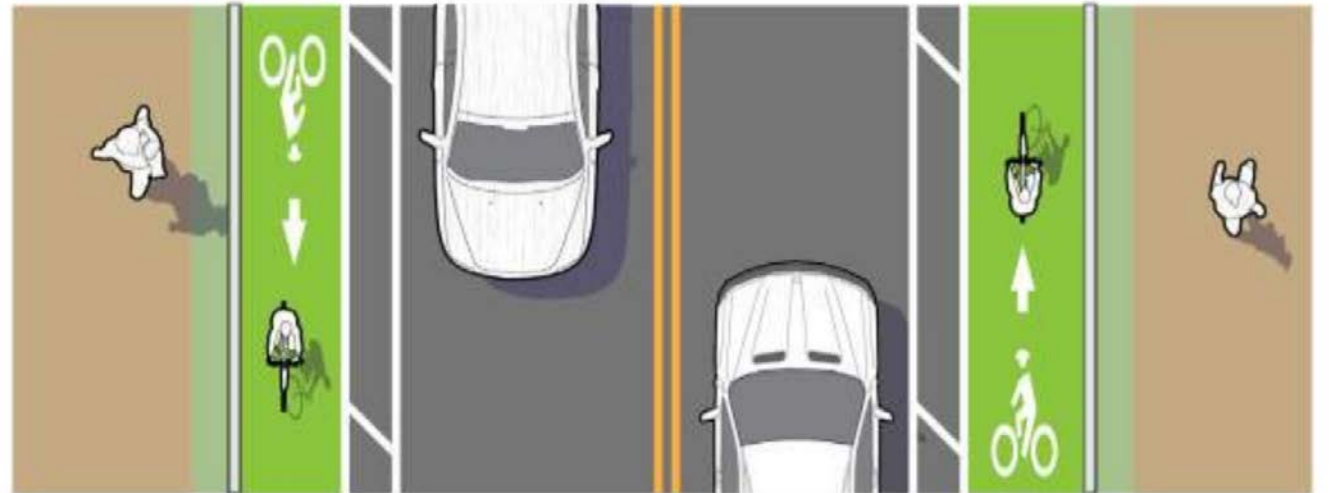
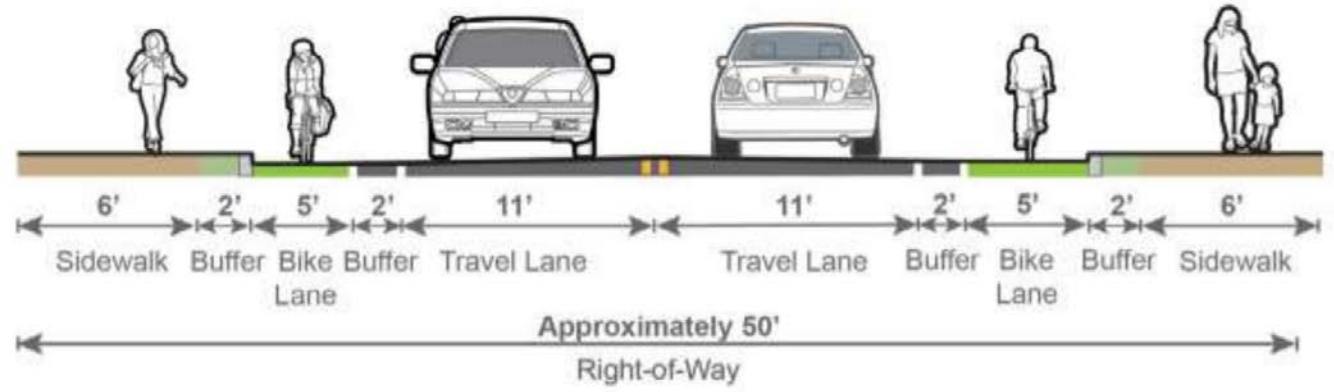




CORRIDOR

Swamp Rabbit Trail Extension

- Priority connections were assigned conceptual schematics



Proposed cross section for Lowndes Down Road with bike lanes and sidewalks on both sides

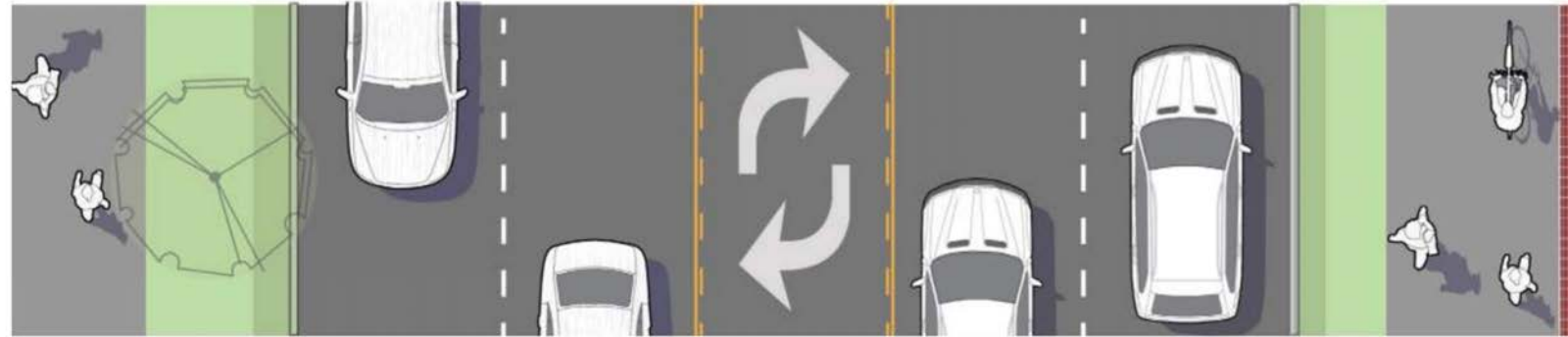
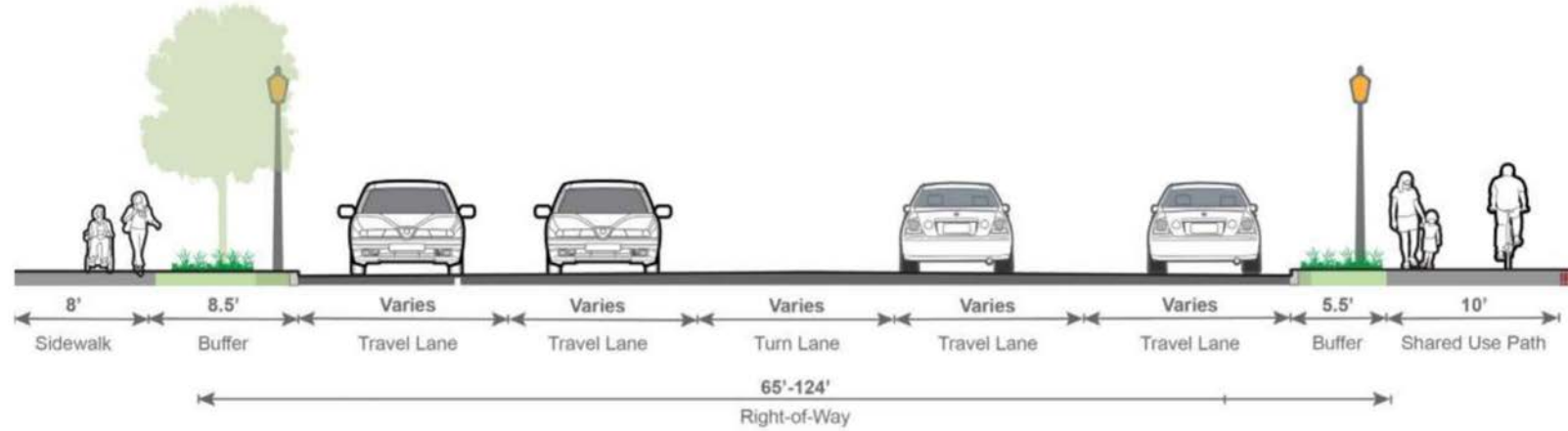
Source: City of Greenville, *Swamp Rabbit Trail Master Plan*



CORRIDOR

Swamp Rabbit Trail Extension

- Priority connections were assigned conceptual schematics

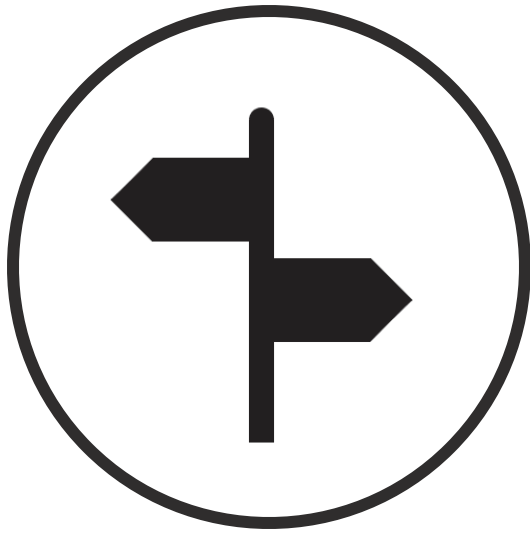


▲ A proposed cross section of Laurens Road with streetscape improvements. The improvements, located behind the existing curb line, include a wide sidewalk or shared-use path and a planted buffer with street trees, vegetation, and pedestrian-scaled lighting.



TRAILHEAD

Trailheads are the critical nodes that connect a trail to its community



Trailheads

Trailheads without sufficient trailheads are like a limited access highway. Users cannot get on and off wherever they like, so the adjacent community doesn't fully realize the benefits of the trail.

GOALS OF TRAILHEAD DESIGN



**Connect to
Street /
Development**



**Universal
Design**



**Support All
Users**



Information



TRAILHEAD

Swamp Rabbit Trail Extension – Trailhead Planning

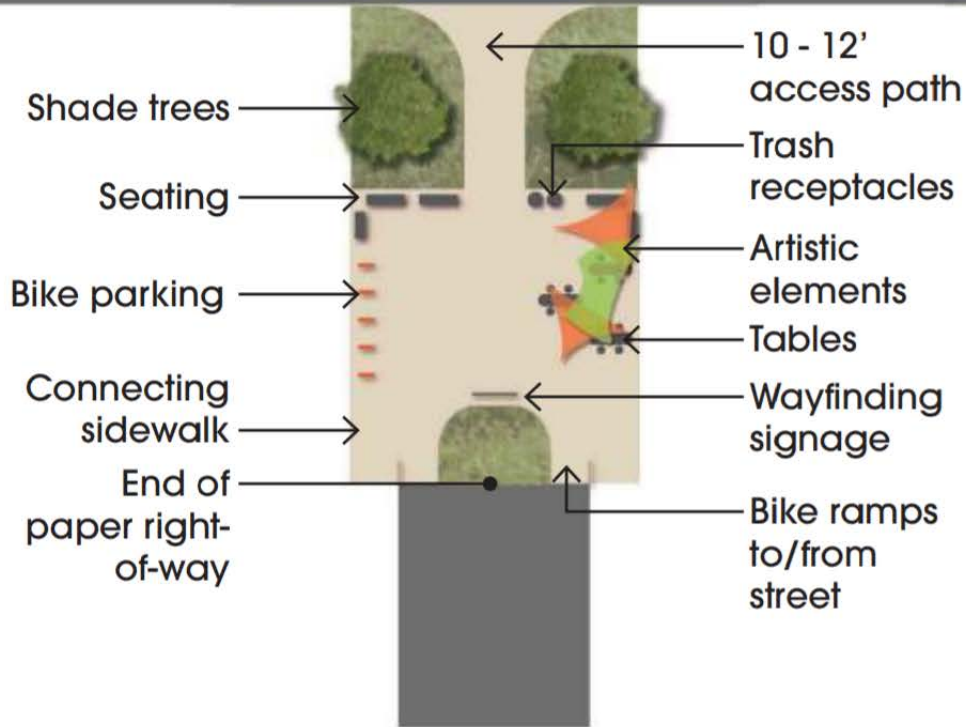
- Rail trails tend to have fewer natural access points because the rail corridors were originally designed to minimize conflict points.
- As a result, trailheads were proposed at all existing at-grade street crossings, and at new redevelopment sites.



TRAILHEAD

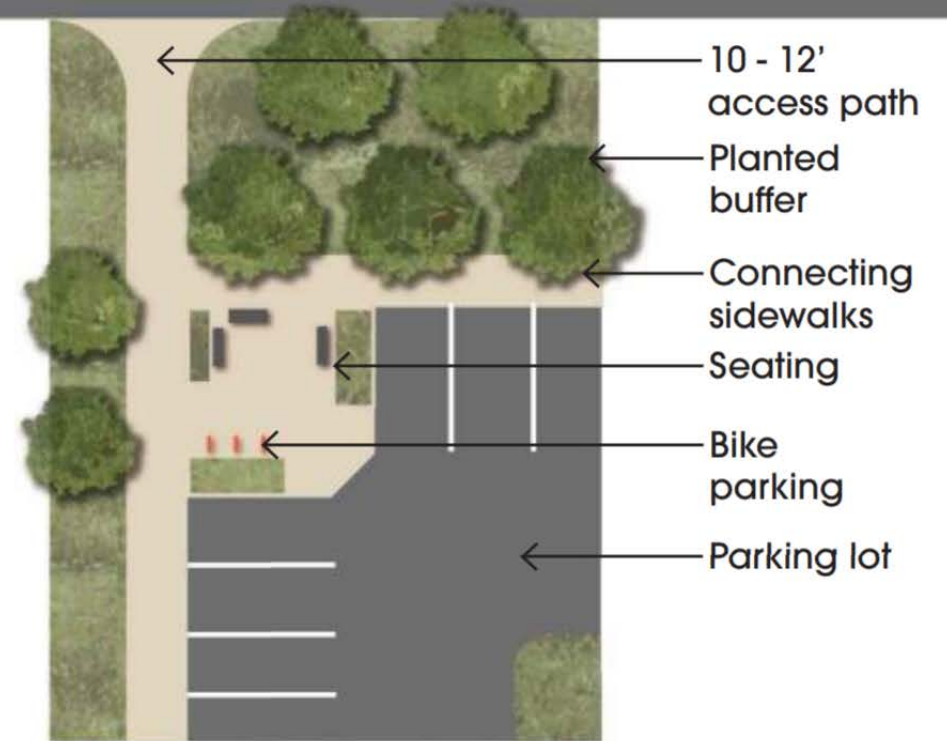
Paper Right-of-Way

This access configuration is appropriate for the quieter neighborhood streets that currently dead-end near the trail.



Accesible Parking Lot

Accesible parking lots are places where there is vehicle parking for trail users.





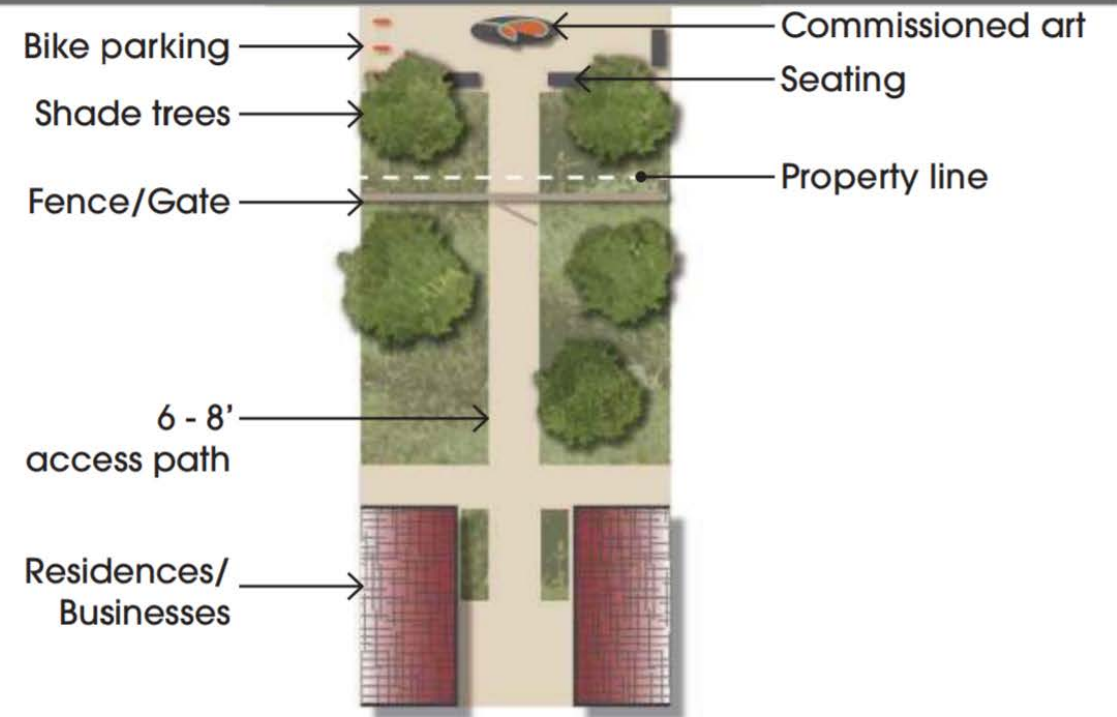
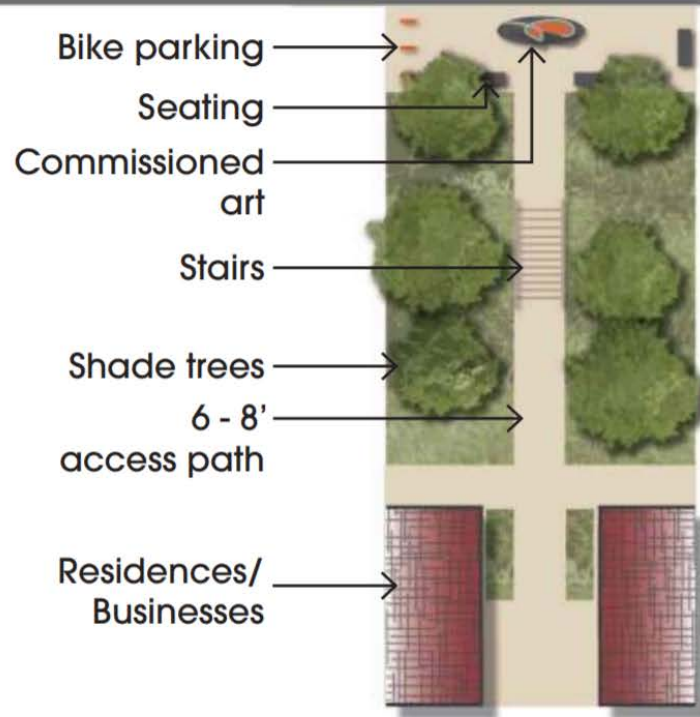
TRAILHEAD

Stair Access

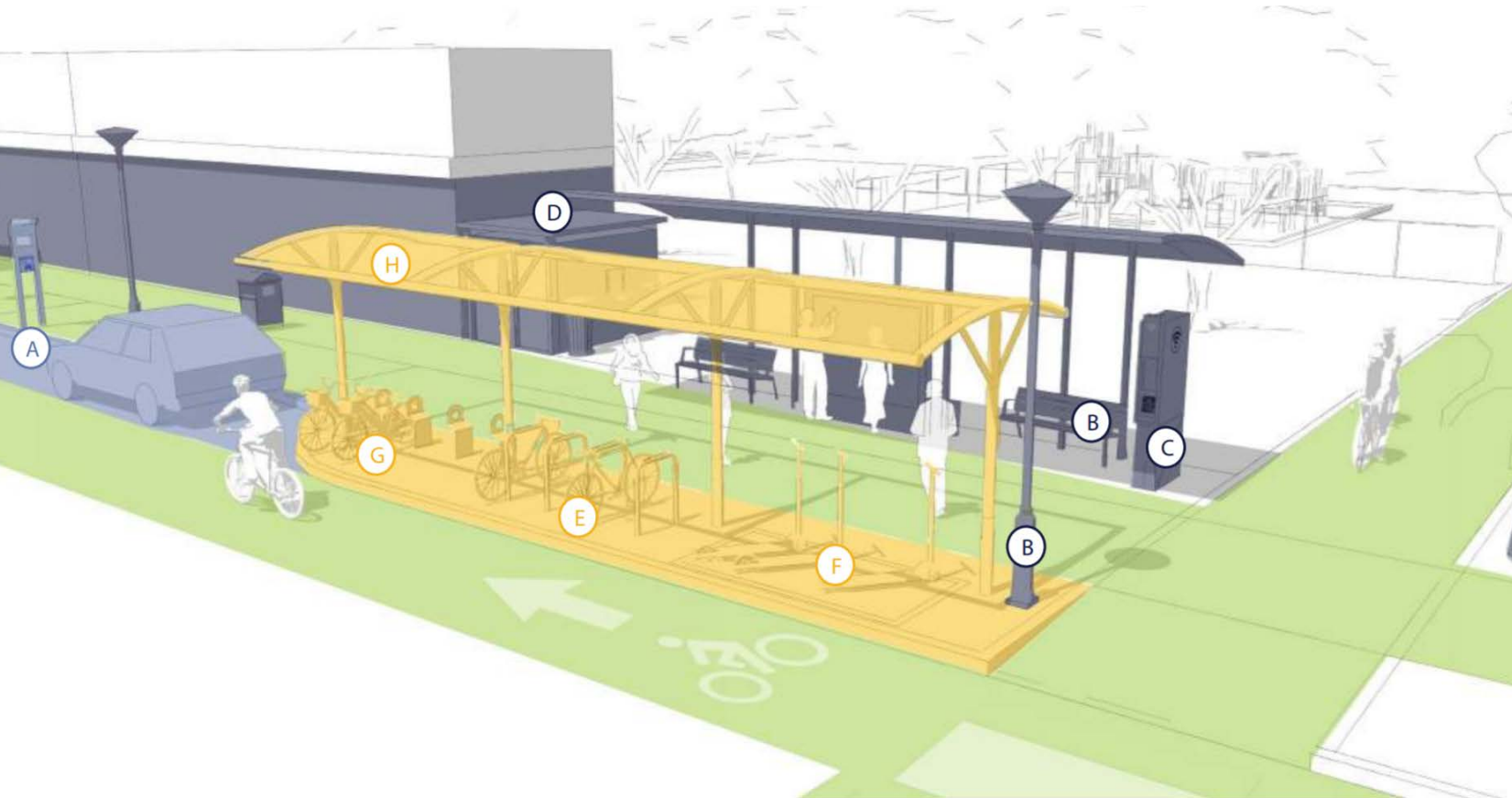
Accessible paths should be prioritized in establishing access to the trail. Stairs should only be added where there are other accessible options nearby.

Gated Access

Gated access may be required for residences and private offices.



Trails as Mobility Hubs



Ride-Hailing Services

- (A) Passenger pick-up and drop-off area

Amenities

- (B) Features that enhance sense of place
- (C) Wifi availability for people who do not have data to access shared mobility services
- (D) Public restrooms and water stations as appropriate

Parking and Charging Services

- (E) Short-term bike parking
- (F) Designated e-scooter parking
- (G) Bikeshare parking and docks
- (H) Weather protection for bike and micro-mobility parking

Priority Access

- Comfortable and continuous walkways
- Comfortable and continuous lanes or paths for bicyclists and others using devices like e-scooters
- Safe and frequent road crossings for people walking and biking



Successful trail access depends on a **dense network** of high-quality **complete streets**, connected to the trail via appropriately spaced **trailheads**.

Thank you!

