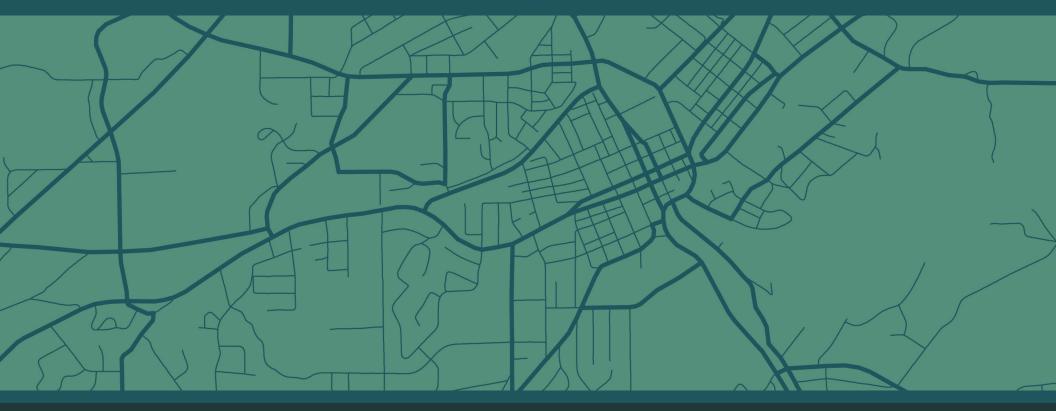


# ATHENS Bike & Pedestrian Master Plan 2023

Athens, TN | Funded by TDOT Grant



**Date:** May 2023



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# **Acknowledgments**

Special thanks to all those that have contributed to this report, especially stakeholders and community members:

#### **City of Athens**

Ben Burchfield, Public Works Director Kevin Helms, Project Manager

#### **Tennessee Department of Transportation**

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**Stantec Consulting Services, Inc.** 

#### **Fairpointe Planning**





# **INTRODUCTION** 01





Athens residents preparing for a ride on the Eureka Trail.



Tennessee Wesleyan students walking north on Green Street in Downtown Athens.

# Improving non-motorized transportation is key for the City of Athens.

Building from the Community Mobility Plan, this Bicycle & Pedestrian Master Plan serves as a comprehensive vision for a bikeable, walkable Athens, connecting and coordinating city plans, policies, programs, and infrastructure projects to develop a fully-realized bicycle and pedestrian network that supports Athens' overall community goals and values.

# **In This Chapter:**

- Why this Study?
- **Project Goals & Objectives**
- Planning Process & Timeline

# Why this study?



## **Background**

Athens has recently developed and adopted two plans providing the initial groundwork for this Plan. They are:

- Athens Historic Downtown Master Plan (2020)
- Community Mobility Plan (2021)

Both plans have been developed and formally adopted by Council within the last two years. The Community Mobility Plan, from which this Plan builds, was completed in July 2021, and identified citywide policy gaps, helped formulate policy objectives, and identified five focus areas within Athens that had immediate or future transportation improvement needs to better support multi-modal mobility and connectivity. However, the Mobility Plan sought to develop a strategy for all modes of travel, and recommended the creation of a Bicycle & Pedestrian Master **Plan** to better plan for non-motorized needs and uses.

This Bicycle and Pedestrian Master Plan emphasizes the following:

- Prioritize important corridors for biking and walking
- Recommend improvements to create safe streets and crossings for all, and
- Identify needed policy and ordinance updates to support biking and walking.

# **About the Community Transportation Planning Grant**

The preparation of this plan has been financed in part by the Tennessee Department of Transportation's (TDOT) Community Transportation Planning Grant (CTPG), which is made available by State Planning and Research funds through the Federal Highway Administration (FHWA), a division of the U.S. Department of Transportation (USDOT). The contents of this report do not necessarily reflect the official views or policies of the USDOT, FHWA, and/or TDOT. It is the policy under Title VI of the Civil Rights Act of 1964 that TDOT prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance.

Following up on the Mobility Plan, Athens applied for funding to develop a Bike & Pedestrian Master Plan through the CTPG Program, administered by the Long Range Planning Division of TDOT. These improvements are in line with the CTPG program goals which include the following:

- Assist rural municipalities with planning efforts that define transportation cohesiveness between multimodal transportation systems and local land use objectives that achieve state transportation goals.
- Aid rural municipalities with the creation of planning documents that support improvements in traffic flow, safety, and overall efficiency of the transportation system.
- Provide rural city governments with planning resources to achieve community visions related to transportation and land use needs that promote future economic growth.

# **Goals & Objectives**

Athens' vision is to continually provide for its residents a vibrant, healthy, safe, and attractive community, and this Bike + Pedestrian Plan is an important step towards realizing that vision. This Plan identifies new opportunities and ongoing initiatives to create and enhance the multimodal environment for those of all-ages-and-abilities, connecting people with place and creating greater access to those destinations where they live, work, play, and learn. In doing so, this Plan, like the Community Mobility Plan before it, seeks to connect Athens' bicycle and pedestrian network with its broader community goals and values:

## 1. Extend the Friendly City to All Users.



Improve bicycle and pedestrian safety.

■ Bicycles and pedestrians should be viable travel modes, and not put travelers at greater risk than drivers.

Design and expand the walking and biking network on current streets.

More streets should be equipped to make safe, non-motorized travel possible.

New biking and walking connections should bridge existing divides in the network, and create continuous connections to facilitate community interaction.

■ The network should be complete and continuous, including in locations where gaps or barriers currently exist.

#### 2. Make Athens more of a destination.



Make it easy and convenient to walk or bike to parks and other attractions.

■ Parks, open space, and other community locations that enrich local life and appeal to visitors should be reachable on foot or by bike.

Improve bikeability and walkability in Downtown Athens.

Create a vibrant downtown by putting more people on the street.

Create and expand recreational opportunities, especially for walking and biking.

Develop a complete and connected recreational system.

### 3. Support economic growth and development.



Improve biking and walking connectivity between neighborhoods and workforce/commercial areas.

Allow access to employment, shopping and services through multiple means where possible.

Work with development community to expand biking and walking network through redevelopment.

■ Embrace partnerships for faster implementation, recognizing the benefits of biking and walking for all.

Find a balance between mobility, safety, and quality of life, creating priorities for certain uses and streets.

## 4. Connect Athens to its region and state.



Create consistency among local and state roadway designs with appropriate bicycle and pedestrian facilities to match functionality and travel conditions.

■ Match functionality and travel conditions with safe, accessible facilities that align with TDOT standards.

Become a leading partner in development of a regional trail network.

■ Encourage nearby rural towns to connect with Athens' system.

Lessen Athens' reliance on motor vehicle mobility and major thoroughfares.

 Direct, convenient, and accessible biking and walking networks can reduce the demand placed on Athens roadways

# 5. Ensure equitable access to the City's resources and amenities.



Policies and infrastructure investments should create mobility options for all users, allowing all to make choices based upon accessibility.

■ Vulnerable users and residents with mobility needs should have the opportunity choose alternative modes.

Prioritize bicycle and pedestrian infrastructure implementation in high need areas.

Environmental justice, low-income, and car-free households) and around critical community facilities (hospitals, schools, grocery stores and markets.



A potential trail connection to be made in Athens.

# **Planning Process & Timeline**

This Plan's development took place over eight months, covering three broad phases described below. Public involvement was essential for a strong, thoughtful plan, with outreach events that took place throughout all *three phases*:



Figure 1.1: Generalized Project Schedule.

#### **OUTREACH & DATA ANALYSIS**

The first phase of the planning process centered on project commencement, initial public engagement, and investigation of Athens' non-motorized network, particularly as it influences bike and pedestrian behavior. The initial Survey and Interactive Web Map identified community perspectives on trends, issues, and values, as well as (with the Map) specific locations of interest within the City. Coupled with data-driven analyses of the transportation network, this phase set the foundation for future stages of the process.

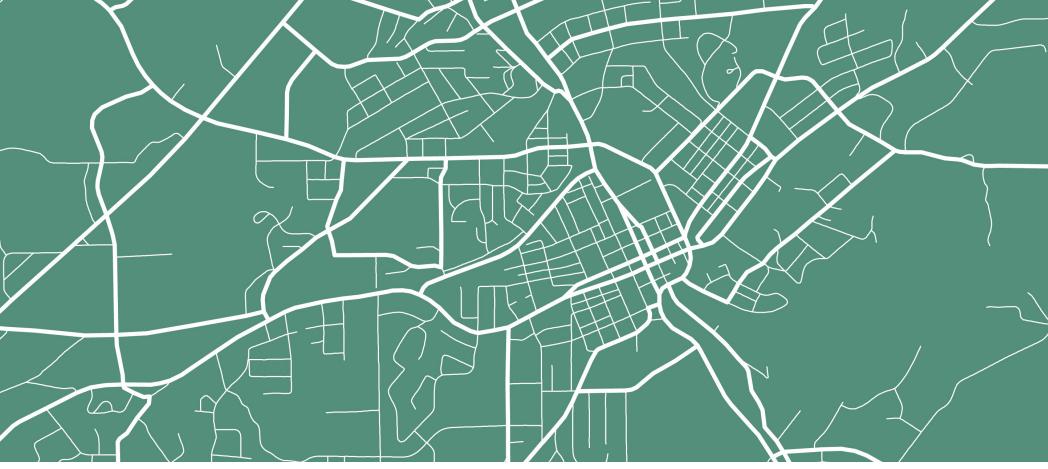
#### **DISCUSSION & DRAFT RECOMMENDATIONS**

The second phase of the planning process used feedback received and existing conditions data analysis to begin framing an improved biking and walking network and the policies that support them. Higher-priority corridors that connect to key destinations became primary connections, and lower-priority corridors that complete the network became secondary connections. From this network, the project team created individual projects, memorialized within tables and maps, and with the Advisory Committee and second round of public outreach prioritized (ranked) projects into High-, Medium-, and Low-priority needs.

#### FINAL RECOMMENDATIONS & REPORTING

The third phase of the planning process tied everything together into a graphically friendly final plan with funding considerations and implementation strategy. Draft Recommendations, presented to the public for vetting through an in-person Open House, were refined through feedback to produce a final list of infrastructure projects and policy changes, prioritized and tied to potential funding sources.





# PLAN & POLICY CONTEXT





An Athens resident out for a ride on the Eureka Trail.

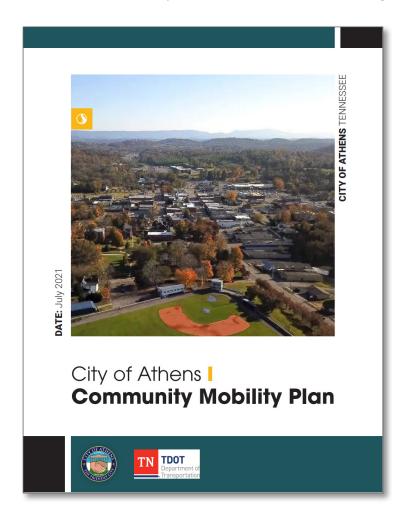
The City of Athens is at a unique moment in addressing active transportation. The Bicycle and Pedestrian Plan is the first plan in Athens to specifically attempt to shape the future of the City's active transportation. Previous studies, however, have incorporated pedestrian recommendations and acknowledged the importance of upgrading the bicycle infrastructure. These plans help to create a framework from which this Plan can build, and shape the community's policy environment. The following summaries of these plans include the most relevant bicycle and pedestrian recommendations.

# **Prior Planning Efforts**

- Community Mobility Plan (2021)
- Comprehensive 20-Year Land Use Plan Update (2020)
- Athens Experience Master Plan (2020)
- Athens City Schools Traffic Impact Study (2017) and **Update** (2020)
- Signal Timing & Operations Study (2019)

## **Community Mobility Plan (2021)**

The Community Mobility Plan is the City's most recently adopted plan, which focuses on improvements to connectivity around Athens and supporting a multimodal community. As a majority of Athens residents travel by motor vehicle, the Plan sought



to identify a cohesive policy strategy for improving all modes of travel, and made infrastructure recommendations for five geographic focus areas.

#### **MOBILITY PLAN RECOMMENDATIONS**

The Mobility Plan recommended the creation of a Bicycle or Ped/ Bike Master Plan to create a strategic approach for creating and expanding bike facilities, and to aid in securing funding for these improvements. Core considerations listed included:

- Identify and complete a travel network, considering Athens' unique transportation infrastructure and community needs;
- Design for all ages and abilities, using community vision and the needs of vulnerable users to define the network; and
- Build the network thoughtfully, using traffic calming and short-term measures to improve connectivity while the complete network is formed.

Other recommendations included developing a Complete Streets Policy, establishing a framework for constructing new sidewalk connections, developing a Street Network Framework Plan to identify needed future connections, and establishing connectivity standards, incorporating bicycle and pedestrian considerations.

The Plan also suggested developing evaluation criteria for the new sidewalk framework, emphasizing connectivity to schools, jobs, parks, employment, community services, shopping, development, and safety mitigation.

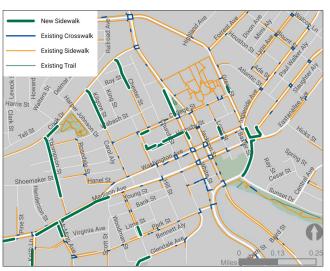
#### **MOBILITY PLAN FOCUS AREAS**

Focus Areas in the Mobility Plan called for a more detailed look at infrastructure needs in specific geographies. Specific projects were identified in Downtown Athens, the new City Schools

complex, the Congress Parkway & Decatur Pike intersection, Cedar Springs Road, and the Industrial Park, some of which have already begun construction and impact this Plan's development.



Athens City Schools focus area recommendations.



Downtown Athens focus area recommendations

#### ATHENS CITY SCHOOLS COMPLEX

The Plan called for construction of new sidewalks and improved street crossings in the neighborhood streets surrounding the new consolidated Athens City Schools site, slated for opening in early 2024. Key sections include Keith Lane, Crestway Drive, Lynnwood Drive, McMinn Avenue, and Cedar



Springs Road. Athens secured funding for the design and construction for highest priority sections in late 2021, and new sidewalks are under construction along Cedar Springs Road, Keith Lane, McMinn Avenue, and Crestway Drive. When completed, these new sections will help to create a more complete connection between nearby residential areas as well as Downtown Athens.

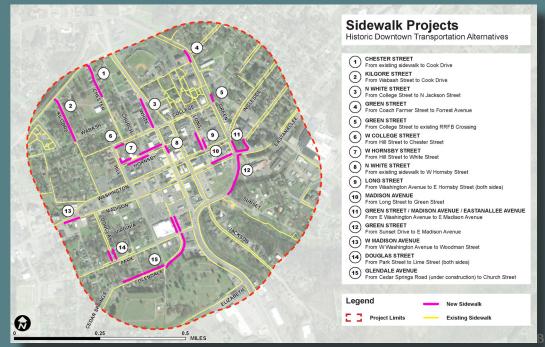
#### HISTORIC DOWNTOWN ATHENS

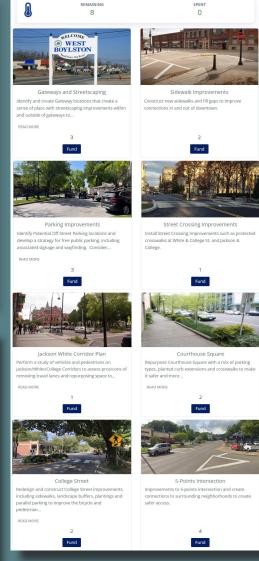
The Plan also called for a host of multimodal improvements in Downtown Athens, including new sidewalks, crossing improvements, and streetscaping and wayfinding improvements, in order to make downtown more friendly to bicyclists and pedestrians. Key improvements include new sidewalks along White Street and Green Street, intersection improvements (including new crosswalks) at the "Five Points" intersection of Ingleside Avenue, Washington Avenue, and Green Street, and reallocation of pavement space along Jackson, White, and College Streets, as well as at Courthouse Square. Further prioritization and design of these projects was taking place as this Plan was developed, and this Plan seeks to support their full implementation.

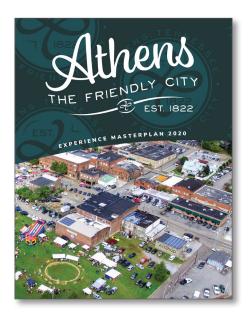
## HISTORIC DOWNTOWN ATHENS DESIGN PROJECT

While Phase 1 of the City Schools improvements was under construction as this Plan was being prepared, prioritization of the recommended design work in Athens' historic downtown was just getting underway. With recommendations ranging from wayfinding and signage improvements to reconstruction of important streets, input on the relative importance of improvement types was equally as important as input on the projects themselves.

A stakeholder meeting was held on January 24, 2023 to gather input for the sidewalk and downtown priorities. Stakeholders voted on their preferences through an online survey. Downtown priorities were assigned points based on the relative cost of designing and constructing the project. Images of the survey are displayed on the right. Stakeholders also voted on the top seven sidewalks to prioritize. The image below was displayed to respondents.

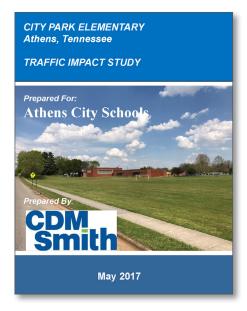






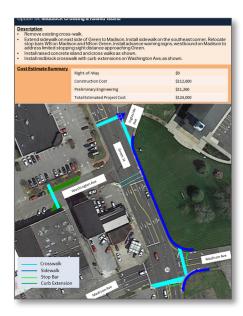
## Athens Experience Master Plan (2020)

This Master Plan aimed to improve the pedestrian experience in Downtown Athens through a consistent, modern identity with wayfinding and signage. It also focused on four distinct locations across the City of Athens—Jackson Street Corridor, College Street, Downtown Square, and McMinn County Courthouse Square. Pedestrian improvements were recommended at each of these locations, citing the need to create safer pedestrian crosswalks and adding amenities such as shade trees, benches, and wider sidewalks. The Plan does not mention bicycle facilities or improvements.



# Athens City Schools Traffic Impact Study (2017) and Impact Study Update (2020)

This Study Update was published following the 2017 Traffic Impact Study on the Athens City Schools. The purpose of the study was to evaluate the potential traffic impacts of the consolidated Athens City Schools site and consider improvements to ease demand on nearby streets. The study looked at roadways, but did not evaluate other travel modes. While both studies called for improvements to existing local streets, neither the Impact Study nor the Study Update included pedestrian and bicycle recommendations. These recommendations were updated both in the Community Mobility Plan, where this was a focus area, and in the Athens School Plan.





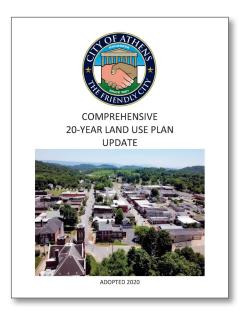
## Signal Timing & Operations Study (2019)

This Study focused on two arterials in Athens—SR-2/SR-30: Congress Parkway and Decatur Pike, and SR 30 Downtown: Green Street.

The SR-2/SR-30 arterial recommendations did not include any pedestrian or bicycle-specific recommendations. The SR-30: Downtown arterial recommended pedestrian improvements at Five-Points intersection and installing curb extensions, sidewalk enhancements, and adding new sidewalks at Madison Ave and Washington Ave.

#### FIVE-POINTS INTERSECTION RECOMMENDATIONS:

- 1A: Midblock Crosswalk & Raised Island -Curb extensions allow for traffic calming and shorter walking distances but the midblock crossing is not protected by a signal.
- 1B: Crosswalk at Signal & No Raised Island -Sidewalk enhancements and crosswalks are protected by a signal, but requires a longer pedestrian crossing.
- 2A: Midblock Crossing & No Raised Island Relocates the Washington Avenue crossing to midblock. Longer crossing distances but maintains landing at Ingleside.
- 2B: Crossing at Signal & Raised Island -Creates shorter crossing distance for pedestrians, but raised island is the only protection.
- 3: Realignment -Removes skew and truck turning issues at Green and Ingleside to allow for more traditional pedestrian crossings, but creates closely spaced intersections.



# City of Athens Comprehensive 20-Year Land Use Plan Update (2020)

The Plan adopted one of six objectives that focused specifically on "non-motorized connectivity." The plan discusses the need to develop policies and regulations to support pedestrian and bicyclist routes. Three policies outline investing in connecting community assets, such as parks and schools, prioritizing projects in high-injury pedestrian and bicyclist crash intersections, adding bicycle and pedestrian facilities such as bike repair stations and benches, and prioritizing improving bicycle routes with low bicycle level of service (BLOS).

# **Ordinance & Policy Context**

## **Athens Subdivision Regulations**

The City of Athens released its new subdivision regulations in 2022. In new neighborhoods or business districts, the minimum pavement widths are increased to 12' wide in turning lanes. The City of Athens uses AASHTO Policy on Geometric Designs of Highways and Streets, latest edition, for standards and policies adopted by the Public Works Department.

According to Section 1214, sidewalks are required on one side of the street with "adequate" crosswalks, following MUTCD, ADA, and PROWAG (Public Right-of-Way Accessibility Guidelines) standards. Sidewalks are required on one side of the street on local and minor roads and required on both sides of the street on collector roads.

Sidewalks in single-family or multi-family home developments are required to be a minimum of 5' wide. Sidewalks in commercial areas are required to be a minimum of 8 feet wide. It is stated that sidewalks should not be less than 1 foot from the property line.

## **Athens Municipal Code**

Athens' Municipal Code codifies city rules and regulations for municipal finance, building and development codes, streets and sidewalks, and land use control.

The City Ordinance has no requirements for pedestrians or bicyclists. There are no sidewalk width mandates or discussion of bicycle improvements. Bicycle safety is mentioned only in allowing individuals to ride on handlebars. Bicyclists are not permitted on Athens' sidewalks.

# **McMinn County Subdivision Regulations**

McMinn County requires sidewalks "as deemed necessary." When the sidewalks are required, the specifications are:

- **Location:** not less than 1 foot from the property line
- Single family residential: concrete sidewalks, 4 feet wide and 4 inches thick.
- Multi-family/Group housing: 5 ft wide and 4 inches thick.
- Commercial areas: 10 ft wide and 4 inches thick

## Tennessee Department of Transportation (TDOT) Roadway Guidelines

TDOT provides minimum pedestrian facilities design guidelines, including both facility type and width, for roadways based upon their classification and

context. Additionally, it makes recommendations for separation requirements based upon roadway speed, including both minimum and preferred requirements.

#### **Minimum Pedestrian Facilities Design Guidelines**

(Where Provided)

ROADWAY CLASSIFICATION/ CONTEXT	SIDEWALK / WALKWAY	WIDTH	
Rural Roadways (<2,000 ADT)	Sidewalks on both sides	SW (5 ft)	
	Shared-Use Path	SUP (10 ft)	
Rural Roadways (>2,000 ADT)	Sidewalks on both sides	SW (5 ft)	
	Shared-Use Path	SUP (10 ft)	
Suburban Roadways	Sidewalks on both sides	SW (5 ft)	
	Sidewalk + Shared-Use Path	SUP (10 ft)	
Major Arterials (Residential)	Sidewalks on both sides	SW (6 ft)	
Minor Arterial and Urban Collector (Residential)	Sidewalks on both sides	SW (5 ft)	
All Commercial Area Urban Streets	Sidewalks on both sides	SW (6 ft)	
All Industrial Area Streets	Sidewalks on both sides	SW (5 ft)	
SW = Sidewalk SUP = Shared-Use Path			

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# **O**EXISTING CONDITIONS



# **EXISTING CONDITIONS** 03





The "Five Points" Intersection, looking south towards Washington Avenue.

Recommendations come from a robust understanding of community values and objectives, but also from an understanding of the current mobility system's problems, opportunities, strengths, and weaknesses. This chapter examines the Athens area holistically, beginning with its demographic and natural resource context, and ending with a synthesis of the region's bicycle and pedestrian system, including existing facilities and trip drivers.

# **In This Chapter**

- Community Demographics
- Natural Resources
- Existing Facilities & Trip Generators
- Level of Traffic Stress
- Crashes & Safety

# **Community Demographics**

Located in McMinn County, the City of Athens is nearly equidistant from the Knoxville and Chattanooga metropolitan areas. The city has seen a slow growth over the past decade, with an estimated population close to 14,000 residents: about a 5% increase from the 2010 Census.

Poverty is an issue of concern in Athens, with 26% of the population living at or below the federal poverty line, and a Median Household Income of \$40,690, which places the city below the state median. Approximately 40% of households have at least one individual with a disability and 21% of the population is older than 65 years of age. Many of Athens residents live within Transportation Disadvantaged Communities, meaning they live in neighborhoods that are disconnected from the resources and services they most need.

Current transportation behaviors reflect a car-dependent community. Of the working population, 94% of residents get around by automobile, whether alone (86%) or shared (8%). A mere 3% get around on foot, and less than 1% use bikes, public transit, or other means. However, commute times show walking or biking to work is possible: commute time for 60% of individuals is less than 20 minutes. Growth will add pressure on the existing network: encouraging active transportation can help to offset this.





## **Natural Resources**

Athens is shaped by its geography, which also provides it with opportunities for greenways and trails that serve both recreational and transportation purposes. Sitting at the edge of the Southern Appalachians, a series of ridges run from southwest-to-northeast through the town, with streams flowing through the valleys into the Tennessee River watershed. These ridges create steep grades for bicyclists and pedestrians, and can limit the feasibility of new connections.

Water bodies — particularly creeks — are also important considerations. Stream corridors limit development and create opportunities for recreational trails, but also limit the ability to make connections across these water bodies. The Oostanula Creek winds through southeastern Athens, parallel to Ingleside Avenue before flowing southwards. This creek bends towards and connects to Downtown Athens near the existing Veterans Memorial Park, creating an opportunity for downtown access to the Eureka Trail.

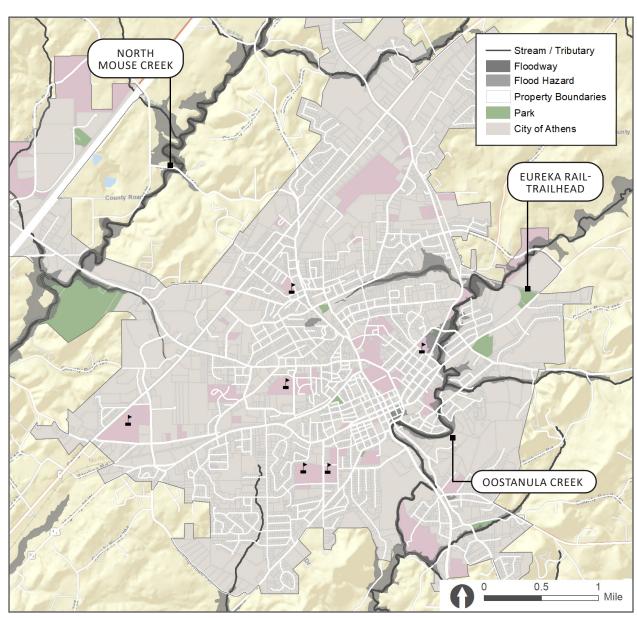


Figure 3.1: Natural Resources, City of Athens.

# **Activity Centers (Trip Generators)**

Prominent community features, such as downtowns, schools and universities, and key shopping destinations generate activity and influence travel patterns within the community. These are called trip attractors, or trip generators, and understanding their location in Athens is important to understanding a community's transportation network as a whole.

**Downtown:** is a vibrant district with coffee shops, restaurants, art galleries and is an important destination. Jackson Street, White Street, Madison Avenue, and Washington Avenue are highly trafficked streets downtown.

Congress Crossing Shopping Center: this commercial destination sits at the corner of Congress Parkway and Decatur Pike. There are no pedestrian facilities within the Center, and few sidewalks nearby (in poor condition).

**Tennessee Wesleyan University:** a private university situated in Downtown Athens, total enrollment in 2020 was 1,200. Students live close to downtown, but downtown connections are difficult.

**Eureka Trail:** residents often use this rail-trail on the edge of Athens for exercise and recreation. Extending this trail to Downtown has strong local support and could see even more users of this community asset.



Downtown Athens.

Tennessee Wesleyan University.





Congress Crossing Shopping Center.

Trailhead, Eureka Rail-Trail.



# **Existing Facilities**

## **Bicycle Facilities**

Athens currently does not have any facilities dedicated to bicyclists. Bicyclists must ride in streets with automobile traffic to traverse the city using the roads and roadway shoulders to travel. The Eureka Rail-Trail is the only dedicated bike route in the area, providing connections to Englewood, but on the outskirts of Athens.

#### Pedestrian Facilities

While Athens does have pedestrian facilities (primarily sidewalks), they are minimal, lack continuity, are and not connected to other areas of the city. In 2021, it was identified that only 19 of the 148 miles of streets in Athens have a sidewalk. Several key corridors do not have sidewalks; some streets do have sidewalks but only on one side of the street. Crossing streets also proves difficult with missing or incomplete crosswalks. During this Plan's development, several sidewalk segments throughout Athens are under construction, including key sections near the new Athens City Schools campus along Crestway Drive, McMinn Avenue, and Keith Lane.

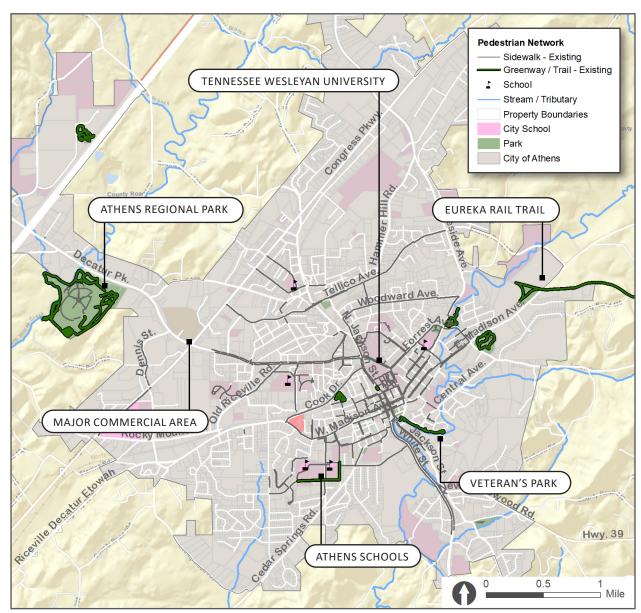


Figure 3.2: Existing facilities and key destinations, City of Athens.

# **Level of Traffic Stress (Bicyclist)**

Level of Traffic Stress (LTS) are ratings designated to street segments based on how stressful the biking experience is for an average rider. Scores range from 1, low stress, to 3, high stress. Roadways that do not allow bicyclists (such as highways) are scored as 0. The LTS in Athens is determined by vehicular speed, average daily traffic volume, and number of lanes in each direction.

Congress Parkway, Decatur Pike, and Ingleside Avenue are high stress corridors and difficult for bicyclists to comfortably and safely navigate the roadway. Residential and rural roads such as Cedar Spring Road, Railroad Avenue, and Tellico Avenue are lower stress streets and allow for cyclists to easily and safely navigate to their destination. However, as traffic volumes continue to increase in Athens over the coming years, LTS scores may shift and make it increasingly stressful for cyclists to safety ride.

The majority of roadways in Athens (53%) are high stress, followed by medium stress (39%) and only 8% are low stress. Medium to high stress roadways are prime candidates for separated bicycle facilities, as fewer cyclists are likely to ride these roadways among vehicles.

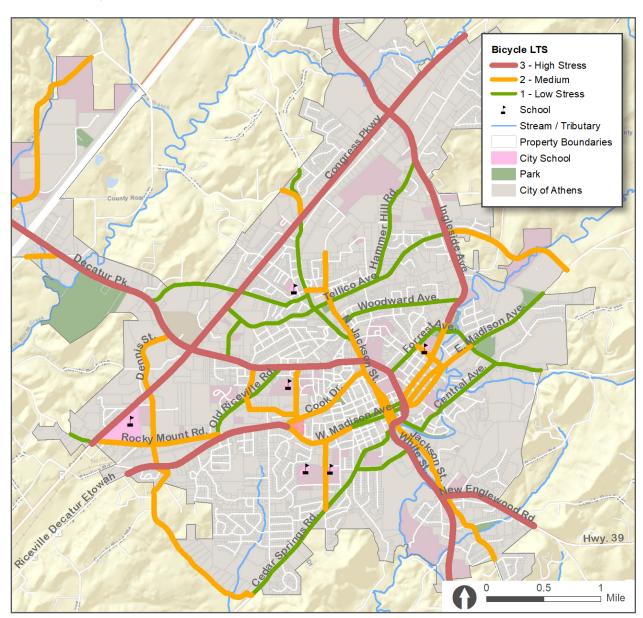


Figure 3.3: Bicycle Level of Traffic Stress, City of Athens.

# **Crashes & Safety**

Conducting bicycle and pedestrian crash analyses are helpful indicators of the safety issues experienced by bicyclists and pedestrians in Athens. Crash analyses can determine the types of crashes that occur most frequently and in turn indicate the proper safety measures that should be implemented and prioritized.

The lack of infrastructure for both pedestrians and cyclists means that the number of users in either category is small to begin with, particularly bicyclists. As a result, the crash data is limited and only provide a starting point in addressing the bicycle and pedestrian safety needs. The most common day of the week for pedestrian and bike crashes is Tuesday, followed by Saturday and Thursday. The majority of crashes (57%) occurred along a roadway followed by at an intersection (41%). The most common time of day for crashes is in the evening into the night, between the hours of 3pm to 9pm.

Compared to motor vehicles, most crashes occurred at an intersection (68%) compared to along a roadway (30%). Fridays have the highest number of crashes. The most common time of day for crashes is between 10am and 7pm.

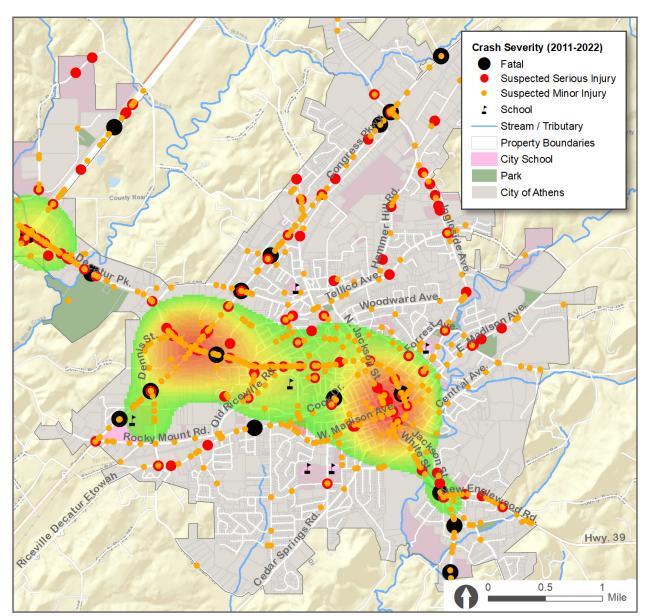


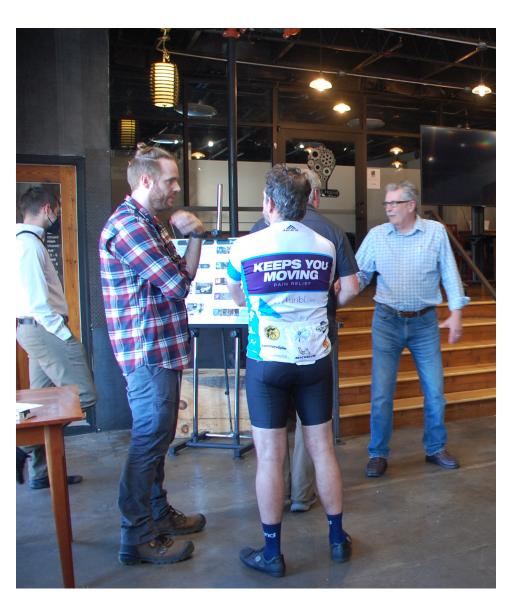
Figure 3.4: Crash locations and density, 2011-2020. City of Athens.





#### PUBLIC ENGAGEMENT 04





Athens residents discuss priorities with Public Works Direct Ben Burchfield at the Open House.

To fully understand the issues and areas of opportunity for bicyclists and pedestrians, the Plan included several virtual, in-person, and digital public engagement components to reach a broad group of stakeholders and community members. The following section documents the meetings, events, and surveys that served as an important component for informing policy and infrastructure recommendations for the future of Athens.

## **In This Chapter**

- Online Engagement
- Stakeholder Discussions
- Public Meetings

# **Online Survey**

An online survey, accessible through the project website, allowed the public to provide feedback on issues central to the Plan's development, such as areas of concern and desired improvements to the bike and pedestrian network.

The survey received 96 comments between November 2022 to February 2023.

The majority of survey participants:

- have lived in Athens for 6+ years (77%) or 10+ years (68%);
- are between 31 to 64 years old (78%);
- walk for exercise (79%) and to enjoy nature (72%);
- visit Athens most frequently for shopping, work, or dining.



Respondents are most comfortable walking or biking within their own neighborhood, and *less* comfortable crossing Main Street.

**Traveling to or from** locations and safe crossings are a challenge to biking and walking.



Respondents prefer greater separation from motor vehicles and traffic.

# **Interactive Web Map**

The interactive map allowed respondents the opportunity to provide feedback on specific locations of interest within the transportation network from the convenience of their home rather than at an in-person public meeting on a specific date/time. The project team asked Need pedestrian How can we connect for locations that act as potential barriers crossings on all sides the Eureka Trail to to biking, destinations that residents bike or of the light. downtown? walk to currently or would like to bike or walk (Connection Needed) (Safety Issue) to in the future, as well as any areas of acute safety concerns. Decatur Pk. Woodward Ave. MINIMAN MANAGEMENT OF THE PARTY 9 con tota W. Madison Ave. Points of Interest Tried to walk to downtown from Barrier to Walking or Biking Jenkin's - it's not safe. Rocky Mount Rd. Connection Needed (Barrier to Walking) Destination I Visit Safety Issue Speeding or Traffic Hazard Other Issue Hwy. 39 Need sidewalks [various locations] near the school. (Other Issues) Mile

Figure 4.1: Interactive Map comments.

# **Advisory Committee**

The Advisory Committee, comprised of technical staff, elected officials, agency stakeholders, and interested residents, acted as an advisory board for the project. The committee met with the project team a total of *three* times over the course of the study:

- Meeting #1: Goals & Vision
- Meeting #2: Project & Policy Recommendations
- Meeting #3: Priorities & Plan Implementation

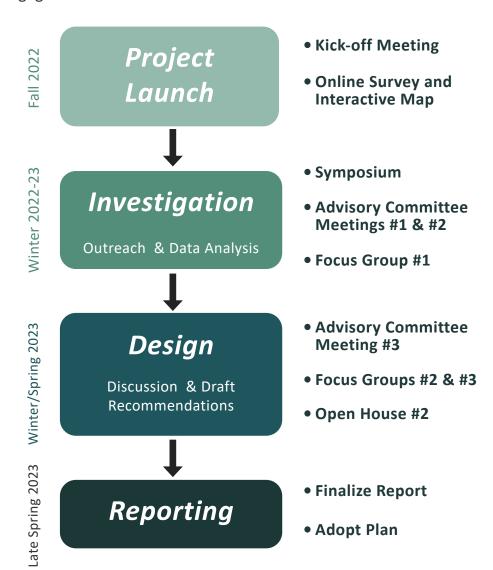
Meeting virtually, the committee reviewed progress, gave direction and input, and provided feedback to the project team. AC members were also helpful to publicize the project website, survey, and public meeting opportunities with their constituents.

## **Focus Groups**

Focus group discussions offered the opportunity to look deeper into transportation and mobility issues impacting Athens, to engage with area stakeholders, and to determine new opportunities and strategies for improvement. Three focus group meetings were held: one held in October 2022, discussing downtown Athens, while two discussions with recreational bicyclists, pedestrians, and advocates were held in March 2023. These meetings offered opportunities to vet recommendations and contributed greatly to the Plan's development.

# **Project Timeline**

The timeline shown below identifies the major public engagement events and milestones.



# **Symposium**

The virtual Project Symposium, held via Zoom on December 13, 2022, offered the first opportunity for the public to collaborate with the project team. The team received vital feedback on project principles and objectives, which was used to refine key themes and principles to guide subsequent design phases of the planning process.

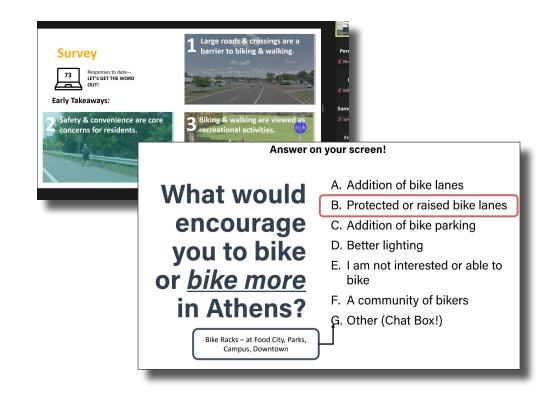




## **Open House #2**

The final public meeting was the Open House, hosted in March 2023. In contrast to the Symposium, where attendees offered input on challenges and opportunities, as well as goals and objectives for Athens' mobility network, the Open House was an opportunity to provide feedback on the Plan's recommendations and strategies for achieving those goals.





# WHAT WE HEARD!

**Connecting the EUREKA TRAIL to Downtown** has strong local support.





# THANK YOU.

This Plan was prepared by Stantec, but it belongs to Athens and its residents. A Special thanks to the members of the Advisory Committee that participated in the development of this Bicycle & Pedestrian Plan:

- **Ben Burchfield** Athens Public Works
- Frances Witt-McMahan Athens City Council
- **Kevin Layne** Tennessee Department of Transportation
- Lisa Dotson *Main Street Athens*
- **Claire Brown** St. Paul's Episcopal Church

- **Danny Duckett** Tennessee Wesleyan University
- **Iackie Newman** Tennessee Wesleyan University
- **Peyton Eastman** E.G. Fisher Public Library
- **Stuart Mason** Business Owner



Comments on proposed policy recommendations.



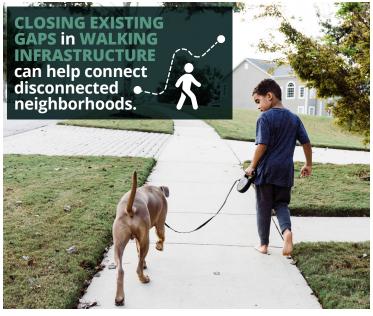
Athens residents at the Open House in March 2023.

# **Key Takeaways**

Out of this review and engagement, key themes have emerged, whether as repeat topics of conversation, patterns of survey responses and map comments, or themes and goals that have carried through time in Athens' plans. These themes, summarized below, represent the key takeaways of this chapter.











# **O**RECOMMENDATIONS



# **RECOMMENDATIONS**

05





Example of Greenway Trail (paved)

This chapter lays out both the infrastructure and policy recommendations to create a more bikeable, walkable Athens. Creating a connected, comfortable, and convenient biking and walking network is never a task that is "complete." However, thoughtful planning and construction of biking and walking facilities, coupled with supportive city policies and programs to encourage biking and walking both as a form of recreation and transportation, will result in the development of an equitable, sustainable, multimodal mobility network supportive of Athens' vision for itself. This Chapter sets out the steps in that process, allowing the Friendly City to set priorities, make trade-offs, and pursue strategies.

# **In This Chapter:**

- Principles of the Biking & Walking Network
- Policy Recommendations
- Infrastructure Project Recommendations

### **Principles of the Network**

More bikers and pedestrians are willing to ride along a connected network with routes that are efficient, seamless, and easy to use. According to the FHWA, there are seven key principles for network design; among these, the first three are particularly important in guiding bikeway and pedway selection:

Safety: Reduce the frequency and severity of crashes and minimize potential conflict points between vehicles and bikers and pedestrians.

Comfort: Minimize stress, anxiety, and safety concerns for the design user.

**Connectivity:** Direct, convenient trips that provide access to desired community destinations. Transitions between facilities and destinations should be seamless and clear.

Figure 5.2: Seven Key Principles of Bikeway Selection (FHWA)



### Safety

Comfort

Network design should minimize potential conflicts among users, and reduce crash frequency and severity.



Network design should minimize stress, anxiety, and safety concerns.



### Connectivity

Network design should offer access to all destinations served by the roadway network, and transitions should be clear.



#### **Directness**

Network design should minimize distance and trip times.



#### Cohesion

Network design should minimize the travel distance between parallel routes and intersecting routes, for biking and walking.



#### **Attractiveness**

Network design should prioritize personal safety, and routes should direct bicyclists and pedestrians through lively areas.



#### **Unbroken Flow**

Network design should limit stops and long waits, and use consistent lighting.

### The Four Types of Bicyclists

Not every bicyclist has the same skillset or level of confidence when biking in or around traffic, which means that different facilities may be needed in order to safely and conveniently accommodate the largest number of users. Designing to these different "types" of bicyclists can have a profound influence on the growth of bicycling as form of transportation and recreation, and these types can be thought of as the "design user" profile:



#### **Highly confident:**

- Smallest population of bicyclists
- Prefers direct routes, and rides fast
- Will operate in traffic, even on roadways with higher speeds & traffic

of Athens residents\*



#### Somewhat confident:

- Comfortable on most bike facilities
- Moderate tolerance for traffic stress
- Generally prefer low-volume residential streets; striped or separated bike lanes





#### Interested, but concerned:

- The largest group; has the necessary basic skillset to safely ride a bicycle
- Low tolerance for traffic stress
- Only bike where they have access to separated bikeways or lowvolume streets with safe crossings

residents\*



#### No way, no how—the "Not interested":

- Unable to or uninterested in biking
- Influenced by personal or environmental factors



\*Based on the 2022-2023 online public survey

### **Building a Low-Stress Network**

Sometimes called an "all ages and abilities" network (AAA), lowstress bicycle and pedestrian networks are those that prioritize the safety and comfort of more vulnerable users. Design preferences emphasize the overall quality of the facility, not just its presence or its directness.

Low-Stress Networks rely on separating bicyclists from traffic using separated bike lanes and shared use paths. Low-speed and low-volume streets with the operating characteristics of bicycle boulevards also support these networks if safe crossings of busy roads are provided. Low-Stress Networks can also adequately serve confident bicyclists.

By serving a broad audience of existing and potential bicyclists, Low-Stress Networks maximize system use by serving high percentages of shorter distance transportation and utilitarian trips for all types of bicyclists.

#### WHO ARE VULNERABLE USERS?

#### Children

Children face unique risks, as they are smaller and less visible from a driver's perspective. Children may also have a less-developed skillset, or less ability to detect risks and negotiate conflicts.



#### **Seniors**

People aged 65 and older are experiencing growing rates of car-free households. Seniors may need facilities that facilitate lower visual acuity and slower speed of movement.



#### **Persons with Disabilities**

People with disabilities may use adaptive bicycles including tricycles and recumbent handcycles, which often operate at lower speeds, and are lower to the ground. Tactile surfaces and audible signals may be needed to accommodate auditory and visual impairments.



### Forming the Bike & Pedestrian Network

Selecting the best facility type for a given roadway can be challenging since the selection must balance traffic conditions, land use context, and implementation cost. For general guidance, Figure 4.2 highlights the relationship between facility type and roadway speed and volume situations. Selecting a bikeway type is not a prescriptive process and other factors need to be considered beyond speed and volume. For instance, the types of traffic, on-street parking, available roadway or roadside space, intersection density, and surrounding land use all play a role in determining the best low-stress facility type.

#### **BUILDING A SMALL TOWN NETWORK**

Small towns like Athens often have great potential for a viable, safe, and convenient bicycle network. With many streets featuring low volumes and destinations located within a relatively small area -- typically in a downtown or commercial core -- making connections to and between these areas may be feasible without requiring separated facilities with higher construction costs.

#### **RESOURCES:**

- Bikeway Selection Guide. (2017). FHWA. https://safety.fhwa.dot.gov/ped\_bike/tools\_solve/docs/ fhwasa18077.pdf
- Small Town and Rural Multimodal Networks. (2016). FHWA. https://www.fhwa.dot.gov/environment/bicycle\_pedestrian/ publications/small towns/fhwahep17024 lg.pdf

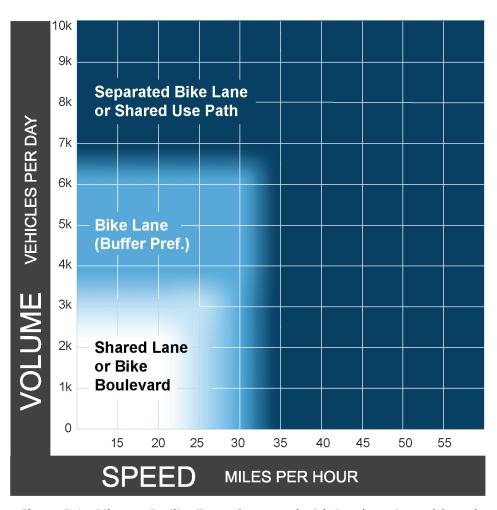


Figure 5.1: Bikeway Facility Types Compared with Roadway Posted Speed and Volumes.

# Types of Bike Facilities SEPARATED



#### **SEPARATED BIKE LANES**

- Exclusive space for bicyclists along or within a roadway, physically **separated from motor vehicles and pedestrians** by <u>both vertical and horizontal elements</u>
- May be flush with the sidewalk or street, or located at an intermediate elevation in between
- For street-level separated bike lanes without a raised median, vertical objects are needed in the buffer to provide separation



#### **SIDEPATHS**

- Physically separated from adjacent travel lanes above the curb
- They may be located on one side of a street, or both sides
- Designed to support and encourage pedestrian use as well as bicyclists



#### SHARED USE PATHS (SUP) / GREENWAYS

- Similar to sidepaths, but they may be independently aligned along a stream or railroad corridor
- Many cities or State DOTs use the terms "Shared Use Paths" or "Multi Use Paths" interchangeably with Greenway
- Supports multiple users, including **pedestrians and bicyclists**

#### **ON-STREET**



#### **BUFFERED BIKE LANES**

- Conventional bike lanes paired with a designated buffer space that further separates the bike lane from the adjacent motor vehicle travel lane and/or parking lane
- Recommended minimum buffer width of 18", with a typical width of 3 feet
- Use chevron markings within buffer if greater than 3 feet



#### **CONVENTIONAL BIKE LANES**

- A designated, exclusive space for bicyclists, marked through the use of pavement markings and signage
- Located adjacent to motor vehicle travel lanes and flows in the same direction as motor vehicle traffic
- Typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane



#### **PAVED SHOULDERS**

- Paved area of a roadway adjacent to vehicle travel lanes
- Not typically considered bikeway facilities, but in rural contexts can serve as ideal facilities for accommodating bike movement
- Safety enhancements such as edge line rumble strips, increase separation with buffered space, and contrasting pavement all create separation from motor vehicle traffic.

#### **SHARED**



#### **BIKE BOULEVARDS**

- Low-stress bikeways primarily located on low-volume, low-speed, residential streets
- Treatments such as **shared lane markings**, **wayfinding signs**, **and traffic calming measures** are implemented to prioritize bike travel
- At approaches to higher speed and volume streets, many bike boulevards transition to bike lanes, separated bike lanes, or shared use paths



#### SHARED LANE MARKINGS (SLM)

- Pavement markings to indicate that bicyclists are intended to **share space** with motor vehicles
- MUTCD suggests SLMs be restricted to roadways with vehicle speeds of 35 mph or less
- Level of comfort and safety among users will vary widely based on posted speeds or volumes
- Typically reserved for residential streets

### Types of Pedestrian Facilities

### **ALONG THE STREET**



#### **SIDEPATHS**

- Physically separated from adjacent travel lanes above the curb
- They may be located on one side of a street, or both sides
- Designed to support and encourage pedestrian use as well as bicyclists (10' minimum width)



#### **SIDEWALKS**

- Paved spaces **exclusively for the use of pedestrians,** typically made of concrete, and located between buildings or adjacent to travel lanes
- Typically located above the curb in the right-of-way, but on a temporary basis may be located flush with the roadway to accommodate construction activities
- Sidewalks should be provided on all streets in urban areas according to ADA accessibility guidelines (5' minimum width)

### **ACROSS THE STREET (MID-BLOCK):**



#### PEDESTRIAN HYBRID BEACONS (PHB)

- Pedestrian-activated control device designed to help pedestrians safely cross higher-speed roadways at midblock crossings
- Steady red signal indicates pedestrian walk interval to motor vehicles
- Most effective at locations where three or more lanes will be crossed or traffic volumes are above 9,000 average daily traffic



#### **RECTANGULAR RAPID FLASHING BEACONS (RRFB)**

- Pedestrian-activated flashing signal to alert motorists to crossing bicyclists or pedestrians
- Often combined with high-visibility crosswalks and pedestrian refuge islands
- Use advance STOP or YIELD markings to increase yield rates for motor vehicles



#### **MEDIAN REFUGE ISLAND**

- Raised island along a street centerline that facilitates bicycle and pedestrian crossings, and narrows the travel lane width at midblock locations
- Minimum width of 6 feet, with recommended length of greater than 6 feet
- Angled cut-throughs permit pedestrians and bicyclists to face oncoming traffic
- Used in combination with other traffic calming treatments

### **ACROSS THE STREET (INTERSECTION):**



#### MARKED CROSSWALKS / PEDESTRIAN COUNTDOWN SIGNAL HEADS

- High-visibility crosswalk style for higher-activity locations, or traditional stipes for others
- Pedestrian-activated (push button) signal heads tied to traffic signal
- May be incorporated with Leading Pedestrian Interval (LPI) phase that allows 3-second head start for pedestrians before traffic signal turns green for vehicles



#### **CURB EXTENSIONS / BULBOUTS**

- Shortens the total distance for pedestrians to cross the roadway, thereby reducing exposure / conflict with vehicles
- Opportunity to incorporate stormwater infiltration areas in place of impervious surface
- Reduces vehicle speeds while turning, and thereby improving safety



#### PEDESTRIAN REFUGE ISLAND

- Raised island at a wide intersection that facilitates bicycle and pedestrian crossings, and narrows the travel lane and reduces vehicle speeds
- Minimum width of 4 feet, with site-specific constraints
- Allows pedestrians an opportunity to cross in two-stages for wide / busy intersections

### Intersection Design Guidance

Some streets are largely designed for vehicular mobility at a high level: high volumes of traffic, more trucks, or higher speeds. However, even in these environments - perhaps especially in these environments - considerations of safe pedestrian access are important.

#### **CONTEXT**

There are two main considerations in pedestrian design for roadways: one, roadway designers want pedestrians to cross the street at (preferably signalized) intersections; and two, pedestrians want to cross the street where it is most convenient for them to do so. If pedestrians need to go well out

of their way to cross at an intersection, then the intersection should be obviously easier and safer compared to crossing at a mid-block location.

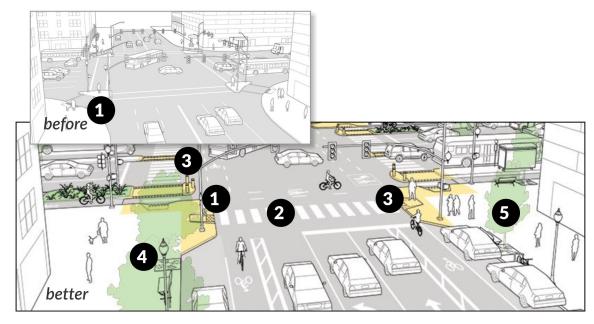


Figure 5.2: Multimodal intersection design. Source: NACTO.

### **SOLUTIONS AT MAJOR INTERSECTIONS**

It isn't necessary to work every element into an intersection upgrade like that shown in the figure below, but (1) eliminating free-flow or continuous right-turning lanes, (2) using high-visibility pavement markings in busy areas, and (3) designing curbs and medians to facilitate "safe haven" crossings are great starts, as is (4) pedestrian scale lighting in areas that get afterdark activity.

Note how much more of the intersection is designed for pedestrians in the "better" image, creating a clear indication that pedestrians not only belong here but that they "own" the street space. Easily overlooked is (5) streetscaping that encourages more walking - which in turn increases the driver expectations of encountering pedestrians in the street.

### Recommendations

Creating a network of well-connected, lowstress facilities is the long-term goal of this plan. Biking needs to be a safe, convenient, and pleasant form of transportation for the broadest array of people. Aligning with the vision of this plan of creating safe and comfortable bike and pedways, this lowstress network would be appropriate for people of all ages and abilities (AAA). The bikeway and pedways and road treatments described on the next page are designed to appeal to many types of riders, particularly the 'interested but concerned' bikers and pedestrians category.

### **Facility Network**

This comprehensive network represents the fully-constructed, long-term vision network and should be built incrementally over time. Not all of these recommendations may be feasible or reasonable for construction now, but may become so as Athens continues to grow. As new development and roadway construction projects take place, as well as regularly scheduled roadway maintenance opportunities (like resurfacing projects), the City should use these opportunities to incorporate these facilities.

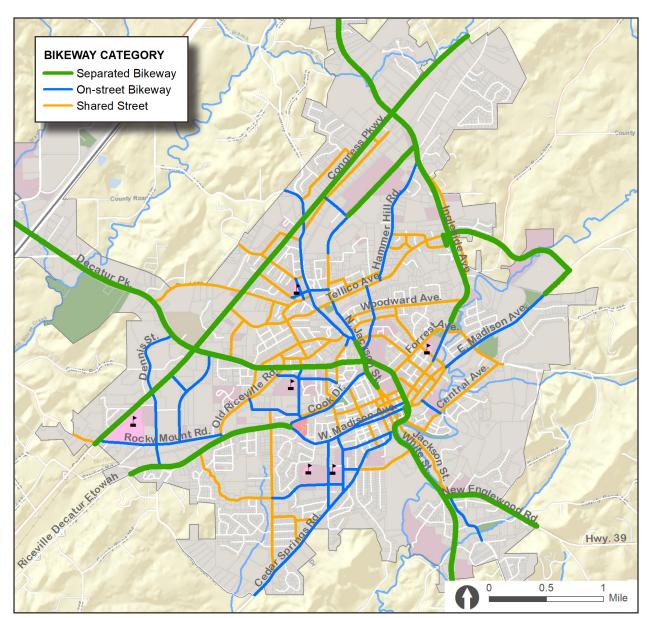


Figure 5.3: Facility Network for Recommended Bikeway Categories (Long-Term)

### **Bike Facility Recommendations**

While Figure 5.3 represents the long-term vision for the fully-realized Athens bike network, not all of these projects can or should be built at once. Figure 5.4 represents those bike facilities that are both feasible and reasonable for implementation, and recommended for construction as part of this Plan. Over time, as these facilities are constructed, this Plan should be revisited to identify new projects, as well as to determine whether changes are merited.

### **HIGHLIGHTS:**

	STREETS	MILES
Sidepaths, Greenways & Trails	11	18.5
Buffered Bike Lanes	2	2.2
Bike Lanes	13	12.7
Paved Shoulders	4	2.0

A full list of projects can be found in the Appendices to this Plan.

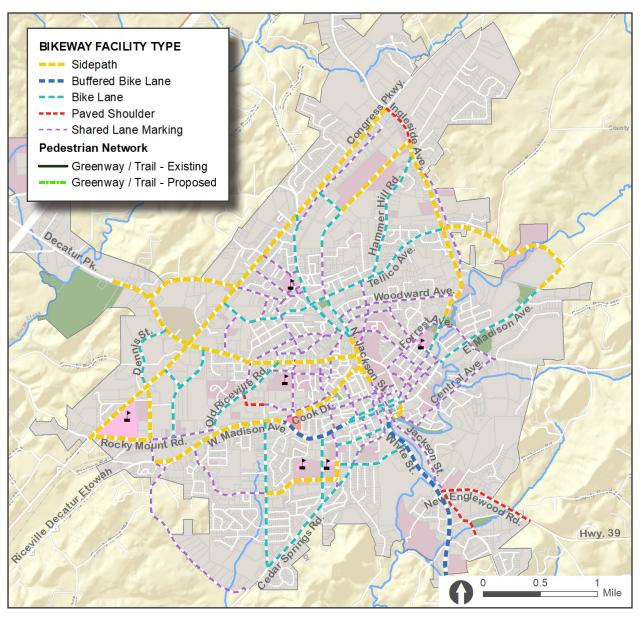


Figure 5.4: Recommended Bikeway Projects

### **Pedestrian Facility Recommendations**

Like the Recommended Bikeway Projects Map, Figure 5.5 represents those pedestrian facilities and intersection crossing improvements that are both feasible and reasonable for implementation. Once constructed these projects would expand Athens' sidewalk network by over 30 miles, with sidewalks along 50% of Athens existing road network. Crosswalks at the highlighted intersections help to bridge the existing barriers and connected disadvantaged neighborhoods.

#### **HIGHLIGHTS:**

	STREETS	MILES
Sidewalks	40	33.6
Greenways & Trails	11	18.5

- New **Eureka Trail extension** to Downtown Athens
- Northside Greenway connects Eureka Trail to Railroad Street

A full list of projects can be found in the Appendices to this Plan.

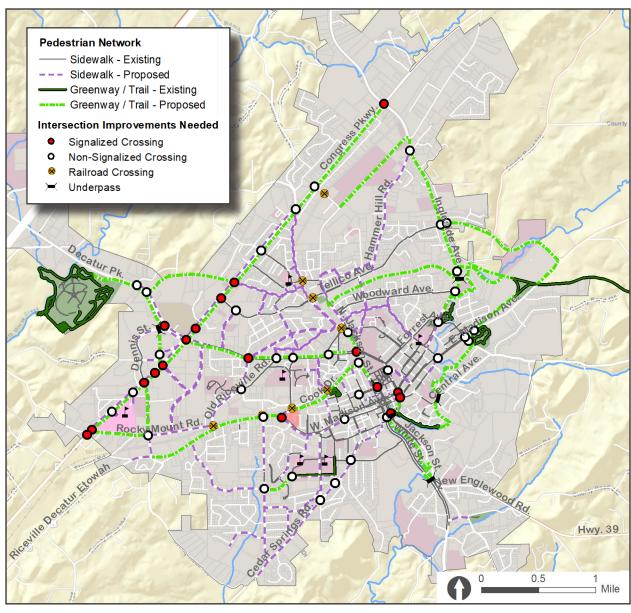


Figure 5.5: Recommended Pedestrian and Intersection Projects

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### **Policy Recommendations**

Policies and regulations lay the foundation for building a safe and comfortable bike and pedestrian network. In collaboration with Athens residents, the planning team developed six fundamental policy recommendations for the City of Athens to adopt and implement in order to support a well-connected, low-stress network.

- 1. ESTABLISH DEDICATED FUNDING FOR PEDESTRIAN AND BICYCLE IMPROVEMENTS
- 2. ESTABLISH A BIKE AND PEDESTRIAN ADVISORY COMMITTEE
- 3. ADOPT A COMPLETE STREETS POLICY
- 4. UPDATE CITY OF ATHENS ORDINANCES
- 5. EDUCATION AND ENFORCEMENT
- 6. UPDATE ZONING AND SITE PLAN REQUIREMENTS



# 1. Establish Dedicated Funding for Pedestrian and Bicycle Improvements

To implement new bike and pedestrian infrastructure recommendations outlined in this report, the City of Athens should consider specifically allocating funds for these improvements. This includes:

- Creating a dedicated budget line item for all roadway improvements
- Prioritizing and improving <u>maintenance of existing roadways</u> and adding regularly schedule street cleaning. TDOT currently sweeps and maintains several of the arterial roadways in Athens, but <u>local roads need maintenance from the City</u>.

Athens should set spending and construction targets for new sidewalks and bike facilities as well as adding pedestrian amenities such as benches and trash cans. Once bicycle and pedestrian facilities are constructed, maintenance of these facilities is critical. Athens should consider outlining how it plans to provide timely and adequate maintenance to ensure facilities are safe, well-managed, and comfortable for use. Based off of previous yearly sidewalk expenditures for Athens, the City should allocate \$300,000 to \$500,000 per year for new sidewalks over the next 10 years in order to construct the 20 miles of high priority sidewalks outlined in the infrastructure recommendations. Lastly, Athens should increase the yearly budget to \$1.5 million for maintenance of City owned streets and roadways.

One of the policy recommendations detailed on the following pages is adding education and enforcement practices around safe biking practices and driver education. Athens should set a budget of \$4,000 for annual educational activities such as creating, printing, and distributing flyers, digital/social media campaigns, and devoting funds for family-friendly bike classes.

Lastly, Athens should earmark a dedicated amount of money to use as a local financial match for grant funds. There are several federal and state grant opportunities that are aimed at supporting multimodal improvements, specifically under the Bipartisan Infrastructure Law (BIL), and many require the municipality to have a local match of funds (usually 20% of total share). A minimum of \$50,000 should be set aside for local matches. Setting Athens up for success early on by designating specific funds to use in coordination with state and federal funds will be immensely helpful for Athens.

Potential federal grants include:

- Safe Streets and Roads for All (SS4A) Grant Program
- Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program
- Reconnecting Communities Pilot Programs
- Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant



### 2. Establish a Bike and Pedestrian Advisory Committee

Bike and Pedestrian Advisory Committees (BPAC) provide municipalities with expertise and guidance on issues related to pedestrians and bicyclists. The BPAC would continue the momentum and interest of active transportation in the city. A typical Committee provides the City Mayor, City Council, the City Manager, and/or other public agency groups on issues or problems related to bicycling and walking and acts as a conduit for residents to voice their concerns in these areas. An Advisory Committee may suggest and/or review:

- Bike/Pedestrian guidance or projects
- Updates to the Bike and Pedestrian Plan
- The creation and implementation of plans and policies, and review plans and policies to ensure they consider bicyclists and pedestrians
- Recommendations for new pedestrian and bike facilities
- Organizing educational events, materials, and pop-up events (see Education and Enforcement recommendation)
- Hosting quarterly bike rides for Athens residents

If organized, Athens should issue a call for applications for five to eight committee members, who are willing to volunteer their time. Applicants do not need to have expertise in bike/ped, but should have a demonstrated interest in growing multimodal projects in Athens. The Committee should enact a Chair and a term limit for all members. A Bike/Ped Committee Ordinance may be passed to ensure the longevity of the Committee and outline the Committee's purpose, member composition, and individual tenure.

Meetings for the Committee should occur either bi-monthly or quarterly to discuss ongoing projects and plans in Athens. These dates and times should consider all Committee members schedules.





### 3. Adopt a Complete Streets Policy

The creation of a Complete Streets Policy would provide the City of Athens with a blueprint for designing streets to account for motorists, pedestrians, bicyclists, and transit riders equally. TDOT supports municipalities adopting a Complete Streets Policy and Plan through their Multimodal Access Policy, adopted in July 2015, which supports the improvements of pedestrian and bicycle facilities to ensure safe and inclusive access for all users. TDOT also has a Bicycle and Pedestrian Policy to support cities and towns interested in developing facilities, guidelines, and public education materials for pedestrians and bicyclists.

While there are not universally accepted standards for a Complete Street, one in Athens may include ADA compliant sidewalks and crosswalks, separated bicycle lanes, street lighting, and bus shelters. Developing a comprehensive policy and design guidelines would lay the foundation for how new streets in Athens are designed and constructed. Potential design standards could include:

- Reductions in vehicle lane width (10-11 feet) or road diets
- Installation of sidewalk (5 feet min. per TDOT guidelines)
- Bike lane (5 feet min. is preferred)
- Signalized, high visibility crosswalks
- Mid-block pedestrian crossing refuges
- Bus shelters
- Vehicle and pedestrian-level lighting
- Curb extensions / Bulbouts

A Complete Streets Policy might also identify specific streets that could be redesigned to accommodate all road users. The infrastructure recommendations in the section above may inform which streets are included for redesign and construction.

Elements of a strong Complete Streets Policy include:

- Vision & Purpose: The policy includes the purpose of adopting a Complete Streets policy in Athens and the goals for planning, designing, constructing, and maintaining streets to accommodate all users
- Core Commitment: The City's commitment to incorporating Complete Streets principles into City plans moving forward and create a connected network for all transportation modes
- **Scope:** Outline how the policy will apply to public and private streets designs for retrofits and new construction
- Implementation: Include the City departments and partners that will be involved in the implementation process, as well as including a suggested list of design standards to follow for Complete Streets. Implementation should also include how the City plans to measure success

Developing a Complete Streets Policy is a first step, but passing an ordinance formalizes the City of Athens' commitment to ensuring safety of all road users. Future plans would be required to include Complete Streets principles and designs on all publicly and privately funded roadway projects, as well as ensure the City of Athens is properly monitoring progress.



### 4. Update City of Athens Ordinances

The City of Athens should consider updating ordinances to include adoption of bike and pedestrian facilities and standards such as requiring bicycle parking and sidewalk construction as part of any project. Ordinances can require non-residential and residential structures to have a minimum number of bicycle parking spaces, similar to motor vehicle parking requirements, based on land use type and location. Ordinances might require bike parking in commercial districts, multi-family housing units, and near transit facilities.

Additional examples of bicycle ordinance rules and regulations include:

- Requiring helmets for those under 16 years of age
- Forbidding motor vehicles from parking in a bicycle lane
- Motor vehicles yielding the right-of-way to bicyclists either within or outside of a bike lane
- Allowing bicycles to be parked on sidewalks

A sidewalk ordinance would mandate that new developments build sidewalks, based on land use type and location of the site. As mentioned in both the Complete Streets Policy and the Bike and Pedestrian Advisory Committee recommendation sections, Athens should consider passing ordinances to formally enact these policies.





### 5. Education and Enforcement

From discussion with community members at public outreach and community events, education around safe biking practices as well as safe driving with bicyclists was among the top concerns. Drivers in Athens are mainly <u>unfamiliar with bicycle lanes</u> and the proper way to drive, park, and maneuver a motor vehicle with bicyclists. Led by the Bike/Ped Advisory Committee, education and enforcement activities would be targeted towards drivers and bicyclists.

Potential driver education components may include:

- Street signage posted near intersections and along roadways with new bicycle facilities, at driver's eye level, to alert vehicles on how to properly drive and park near bike lanes
- Safety awareness campaigns
- Mailing pamphlets about driving with bicycles to City of Athens residents, referring them to the City of Athens' website with more information
- Local ads/channels with Public Service Announcements
- Stop-and-inform practices for officers to educate roadway users
- Developing a curriculum that could be used in Athens schools that focuses on safe pedestrian and bicycle usage

To encourage the use and uptake of protected and/or dedicated bicycle lanes, the City of Athens may want to provide education and "encouragement" programs to spur the use.

Potential educational/encouragement programs for bicycle riders may include:

- Providing free bicycle classes for Athens' residents to learn to ride a bike. For example, Outdoor Chattanooga provides free lessons to children and adults interested in learning how to ride. The City of Athens could partner with this one or a similar local organization to bring these classes to Athens.
- Offering free or discounted bicycle helmets to riders to encourage safe bicycle riding
- Mailing maps for low-stress street networks in Athens, referring residents to a City of Athens website with more information
- An "Athens Bike Day" to close certain segments of streets to motorists and open it up to bicyclists
- Holding pop-up events in downtown Athens to educate Athens residents about bike safety
- Offering Safe Routes to School programming
- Opening or supporting a bicycle co-op in Athens
- Conducting bike and walk audits with Athens residents to identify infrastructure improvements



### 6. Update Zoning and Site Plan Requirements

Cities and towns develop policies such as zoning and site plans to regulate construction of properties for the health, safety, and welfare of residents. Updated in July 2021, the Athens Municipal Zoning Code <u>does not include any standards</u> for sidewalks or bicycle lanes. Updating the zoning requirements can set the stage for improving these facilities.

Several of the following zoning changes have been supported by TDOT and other active transportation advocacy groups and cities. Zoning codes can include:

- Developing standards and minimums for bicycle parking spaces in downtown Athens and in business districts
- Developing standards and minimum width for construction of bicycle lanes
- Developing standards and minimum sidewalk width in the downtown, business districts, and in community neighborhoods
- Requiring bicycle lanes and sidewalks for all new developments and construction projects
- Requiring improved pedestrian facilities and connections between trip generators
- Universal design guidelines for bike and pedestrian facilities
- Developing access management standards and guidelines to improve the safety and capacity of roadways. This may include

shared access and parking, intersection design requirements for improved safety and manage congestion, redesign egresses of commercial strips, or mixed-use development. Access management standards help to minimize roadway conflicts between pedestrians, bicyclists, and motorists.

Zoning can also prioritize building sidewalk and bicycle facilities at important city resources and trip generators such as the library and grocery stores.

Traditional zoning, known as Euclidean Zoning and most commonly used across the United States, divides cities and towns based on land use type. Athens may consider adopting Form Based Code Zoning in the historic downtown or other dense areas of Athens to better plan for a walkable, bike-friendly city and support regulating the building form rather than the land use type.







## **IMPLEMENTATION**

06





Shared-Use Path currently under construction at the Athens City Schools property. This path was recommended in the 2021 Community Mobility Plan.

Building an Athens culture that promotes and expands walking and biking and implements these recommendations will require persistence and leadership from the local community. Although local sources of funding can go a long way in achieving community aims, these must be supported and taken up by the residents of Athens to encourage biking and walking in their community. This section outlines the organizational structure and steps necessary to successfully achieve the goals set forth by this Plan.

### **In This Chapter:**

- Implementation Approach
- Prioritizing Projects
- Project Highlights
- Funding Sources
- Stakeholders & Partners

### **Implementation Approach**

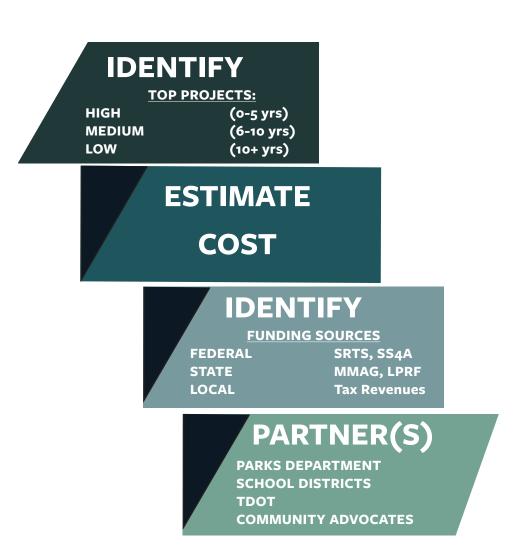
With more project needs than funds available, an effective approach to implementing projects is essential. Figure 6.1 represents an effective four-step strategy based on developing project priorities, identifying cost estimates, and securing funding sources and key partners to aid in the implementation process.

PRIORITIZING PROJECTS

Prioritization of projects enables cities like Athens to identify those projects that most contribute to accomplishing communitydefined goals and objectives for its network. Evaluation criteria were developed from the Plan's Goals, public feedback, and technical analysis, in order to identify projects that will deliver the greatest impact. Projects located in close proximity to identified areas or meeting these criteria receive higher **scores.** Translated, these scores indicate a project's likelihood of improving the quality of walking and biking within the Athens area.

- **Accessibility** (proximity to education, recreation, shopping, and points of interest)
- Safety (proximity to corridors with high traffic volumes and/ or crashes)
- **Equity** (proximity to environmental justice communities or transportation disadvantaged)
- **Economic Development** (within a designated focus area)
- Local Priority (community-identified needs through public engagement and advisory committee)

High priority projects may be found on the following page. A full list of prioritized projects may be found in the Appendices.



**Figure 6.1:** Implementation approach.

## **Pedestrian Projects**

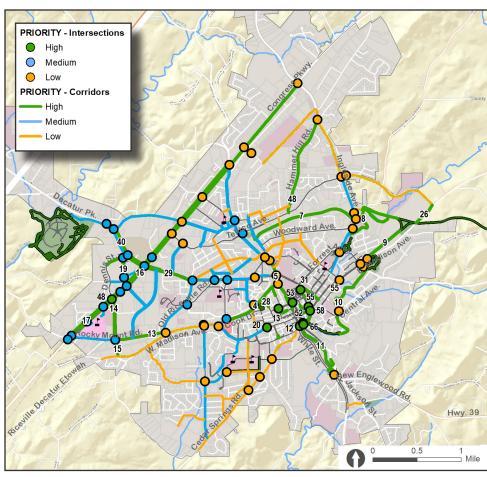


Figure 6.2: Priority pedestrian and intersection projects.

High-Priority Pedestrian Projects			
ID	PROJECT NAME From / To	LENGTH (Miles)	RECOMMENDED FACILITY
11	Oostanula Creek Trail From S White St to Jackson St	0.95	Greenway
19	Congress-Decatur Connector From Congress Pkwy to Dennis St	0.84	Greenway
9	<b>Eureka Trail Extension SOUTHWEST</b> From Slack Rd to the Eureka Trail	0.59	Greenway
55	Madison Avenue From Blount St to Guille St	0.17	Sidewalk (Both sides)
8	<b>Eureka Trail Extension WEST</b> From Ingleside Ave to the Eureka Trail	1.29	Greenway
10	<b>Parks Connector</b> From Veteran's Memorial Park to Knox Park	1.20	Greenway
26	Madison Avenue From the Eureka Trail to Tellico Ave	0.27	Sidepath (One side)
7	Northside Greenway From Jackson St to Ingleside Ave	1.33	Greenway
48	Hammerhill Road From Tellico Ave to Ingleside Ave	1.13	Sidewalk (One side)
28	Downtown Sidewalks Various Streets	1.42	Sidewalk (Varies)
27	Green Street From Jackson St to Madison Ave	0.16	Sidepath (One side)
5	Jackson Street From White St to Stiles St	0.44	Sidepath (One side)
4	Cook Drive From Frye St to Jackson St	0.72	Sidepath (One side)
29	Decatur Pike From Congress Pkwy to Maple St	0.55	Sidepath (One side)
40	Decatur Pike From Sullins Rd to Congress Pkwy	0.78	Sidewalk (One side)
15	Dennis Street From Madison Ave to Congress Pkwy	0.63	Sidewalk (One side)
14	Dennis Street From Rocky Mount Rd to Congress Pkwy	0.44	Sidepath (One side)
17	<b>Congress Parkway</b> From Rocky Mount Rd to Clearwater Rd	2.66	Sidewalk (One side)
13	Rocky Mount Road From Dennis St to Old Riceville Rd	0.56	Sidewalk (One side)
16	Congress Parkway From Rocky Mount Rd to Ingleside Ave	3.82	Sidepath (One side)

**Table 6.3:** High-priority pedestrian projects.

### **Bicycle Projects**

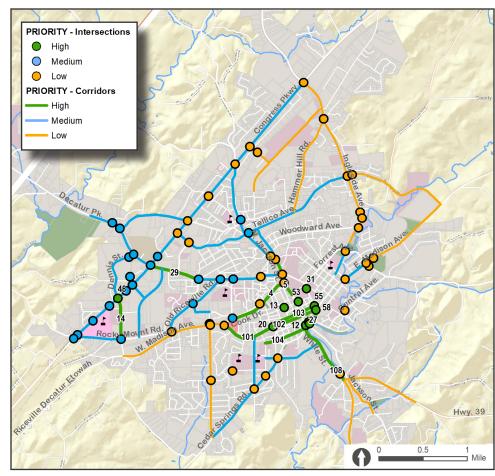


Figure 6.4: Priority bicycle and intersection projects.

High-Priority Bicycle Projects			
ID	PROJECT NAME From / To	LENGTH (Miles)	RECOMMENDED FACILITY
127	Madison Avenue From Guille St to Slack Rd	0.30	Bike Lane
128	Madison Avenue From Slack Rd to the Eureka Trail	0.79	Bike Lane
123	Hammerhill Road From Tellico Ave to Ingleside Ave	1.13	Bike Lane
26	Madison Avenue From the Eureka Trail to Tellico Ave	0.27	Sidepath
102	Madison Avenue From Washington Ave to Green St	0.52	Bike Lane
103	Washington Avenue From Green St to Madison Ave	0.53	Bike Lane
27	Green Street From Jackson St to Madison Ave	0.16	Sidepath
5	Jackson Street From White St to Stiles St	0.44	Sidepath
4	Cook Drive From Frye St to Jackson St	0.72	Sidepath
104	Park Street From McMinn Ave to White St	0.49	Bike Lane
101	Madison Avenue From Cook Dr to Washington Ave	0.63	Buffered Bike Lane
108	White Street From New Englewood Rd to Park St	0.78	Buffered Bike Lane

**Table 6.5:** High-priority bicycle projects.

High-Priority Intersection Projects			
ID	Intersection Location	INTERSECTION TYPE	RECOMMENDED IMPROVEMENT
53	Jackson Street / College Street	Signal	Signalized Crossing
20	Madison Avenue / Washington Avenue	Skewed Intersection	Non-Signalized Crossing
58	Madison Avenue / Green Street	Intersection	Signalized Crossing
55	Green Street / Ingleside Avenue	Skewed Intersection	Signalized Crossing
13	College Street / Hill Street	Intersection	Non-Signalized Crossing
12	White Street / Green Street	Intersection	Non-Signalized Crossing
52	Jackson Street / Green Street	Signal	Signalized Crossing
31	Green Street / Atlantic Street	Intersection	Non-Signalized Crossing
66	Jackson Street Greenway Underpass	Greenway Crossing	Underpass
48	Congress Parkway / Dennis Street	Signal	Signalized Crossing

**Table 6.6:** High-priority intersection projects.

### 1. Eureka Trail Extension

## CONNECTING THE EUREKA RAIL-TRAIL TO DOWNTOWN ATHENS







The Eureka Trail is a greenway, converted from an old rail line, that currently extends 5.6 miles from Northeastern Athens to Englewood. The trail accommodates hikers, bikers, and even horseback riders, and is a popular activity for locals in the community. Despite its popularity among residents, the Trail does not connect into Athens; instead it ends at the city limits on Madison Avenue.



Community feedback through engagement revealed extension of the existing Eureka Trail from its current terminus to Downtown Athens as the top priority.

Cost Estimate\*: ~\$1,500,000

**SECTION 1:** \$460,000 - 500,000

**SECTION 2:** \$560,000 - 600,000

**SECTION 3:** \$440,000 - 480,000

\*ROW Acquisition not included. Includes typical fees for engineering design, labor and materials, mobilization, 30% contingency.

Ultimately, the Trail is recommended to be extended by four miles but will be broken down into three distinct segments: construction of the first two will complete the downtown connection and are recommended to be completed first.

#### **SECTION 1: SLACK ROAD TO EUREKA TRAIL**

This section follows the existing railroad easement and parallels Madison Avenue, with two key crossings to take advantage of existing paths at Knox Park: Madison Avenue near Short Street, and Slack Road near the Knox Park entrance. With higher volumes on these roads, Rectangular Rapid Flashing Beacons (RRFBs) should be constructed to aid with safe crossings.

#### **SECTION 2: PARKS CONNECTOR**

This section completes the downtown connection, taking advantage of existing paths in Veteran's Memorial Park. The trail path follows Oostanula Creek beyond Slack Road, with only one significant street crossing at Central Avenue. Consider the feasibility for an underpass at Central Avenue to reduce interaction with drivers.

#### **SECTION 3: OOSTANULA CREEK TRAIL**

This section connects Downtown Athens and the Eureka Trail to neighborhoods south of Downtown and provides a safe, separated alternative to South Jackson Street for bicyclists and pedestrians. This trail follows the Oostanula Creek stream corridor, with trailheads tying into city property along Jackson Street. The trail crosses SR 30 using the underpass at the existing bridge.

ADA curb

Madison Avenue

**Knox Park** 

100 feet

**Existing Path** 

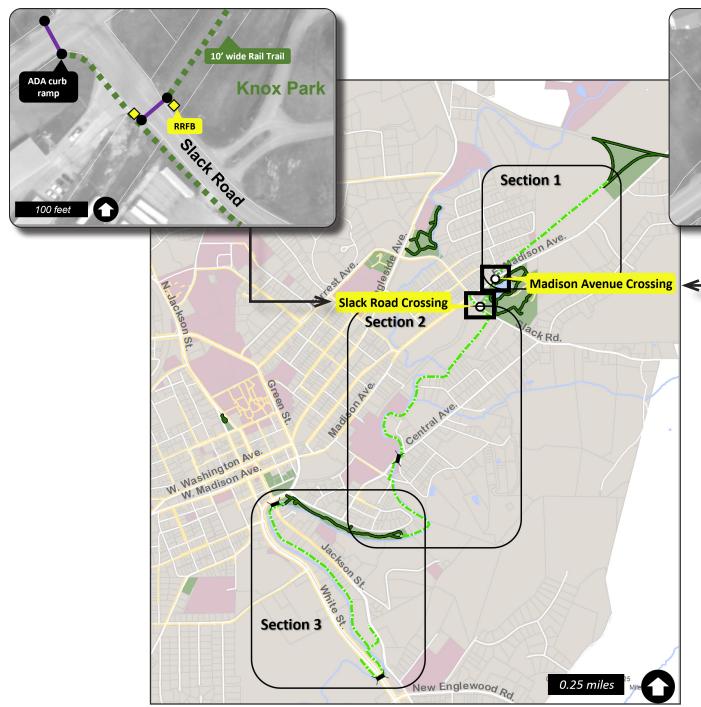


Figure 6.7: Conceptual design, Eureka Trail extension to Downtown Athens.

### **RECOMMENDATIONS:**

10' wide Rail Trail

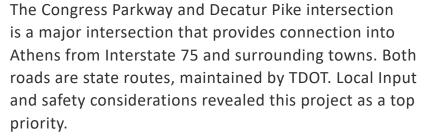
Short Sheet

- Construct 10' shared-use path / trail
- Follow existing railroad easement and Oostanula Creek stream corridor where feasible
- Construct midblock crossings with Rectangular Rapid Flashing Beacon (RRFB) at:
  - Madison Avenue near Short Street
  - Slack Road at Knox Park **Entrance**

### 2. Congress Parkway & Decatur Pike Intersection

### **GETTING ATHENS RESIDENTS ACROSS** THE ROAD SAFELY







#### **RECOMMENDATIONS:**



- Construct pedestrian refuge islands at all four approaches where indicated
- High-visibility continental crosswalks (or similar)
- Pedestrian countdown timers at all approaches
- Explore Lead Pedestrian Interval (LPI)
- Construct 5' sidewalk where indicated
- Accommodate construction of 10' shared-use path where indicated.

Cost Estimate\*: \$80,000 - 120,000 \*ROW Acquisition not included. Includes typical fees for engineering design, labor and materials, mobilization, 30% contingency.

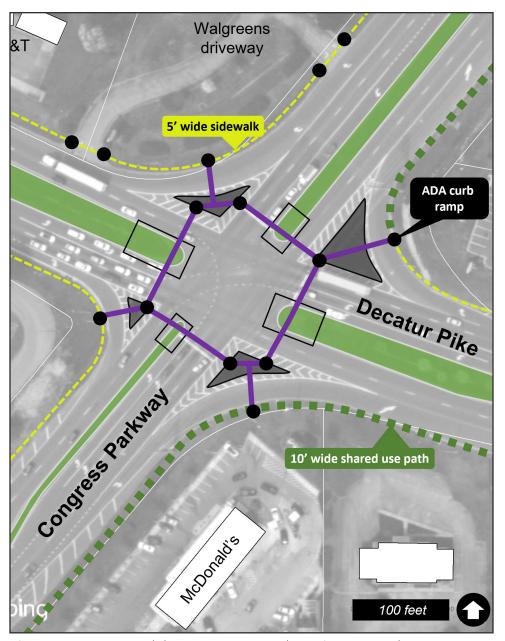


Figure 6.8: Conceptual design, Congress Parkway & Decatur Pike intersection.

### 3. Green Street & Washington / Ingleside Avenue Intersection

### **FIXING FIVE POINTS**







The Green Street and Ingleside Avenue intersection is a major entrance point into Downtown Athens. The skewed intersection is currently very unsafe for pedestrian activity, as there are five points of connection and very little pedestrian or bicycle infrastructure. As a critical gateway to Downtown and the various safety needs, this intersection ranked high on the priority list.



### **RECOMMENDATIONS:**

- Construct raised pedestrian refuge island at the Ingleside Avenue approach
- Pedestrian countdown timers
- ADA-compliant curb ramps
- Explore Lead Pedestrian Interval (LPI)
- Accommodate bike lane at Washington Avenue approach
- Accommodate shared lane marking at Ingleside Avenue approach



\*ROW Acquisition not included. Includes typical fees for engineering design, labor and materials, mobilization, 30% contingency.

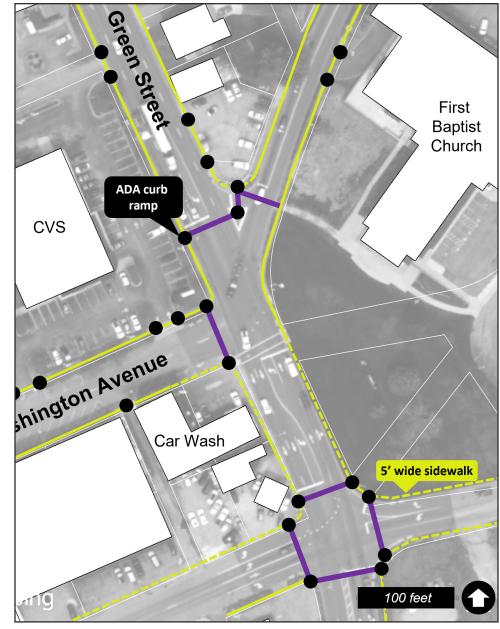


Figure 6.9: Conceptual design, Five Points intersection.

### **Funding Sources**

Federal, state, and local governmental agencies have dedicated funding programs to support municipal infrastructure improvements related to pedestrian, bicyclist, and transit facilities. Below are grant programs that Athens may consider applying to.

### **Federal**

### **SAFE STREETS FOR ALL (SS4A)**

This program provides funding to local governments or regional partners to support plans such as "Vision Zero" and other improvements to reduce crashes and fatalities, especially for cyclists and pedestrians. The program is in its second round of awards, and funding will be available for three additional years. This is a great funding opportunity but would require the City of Athens to adopt a Safety Action Plan. \$ 20% local match

### REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE)

This discretionary grant is available to local governments and supports transportation projects of local and/or regional significance. The 2023 round of funding will be split equally between rural and urban areas, giving Athens a great opportunity to receive funding in future years.

0-20% local match, but Federal share may reach 100% if the project is located in a rural area

### RECONNECTING COMMUNITIES PILOT PROGRAM

This new competitive program provides dedicated funding to local governments for planning, design, demolition, and reconstruction of infrastructure to restore community connectivity. The \$1 billion program launched in 2022 and funding will be available for four more years. Funding is outlined to cover planning studies, public engagement, and construction.



20% local match, could be great than 20%, but a few Federal programs may be used to cover 20% local match

### **INFRASTRUCTURE FOR REBUILDING AMERICA (INFRA)**

INFRA grants offer funding to state and local governments for projects of regional or national significance. Under the BIL, 8 billion dollars are available over four years, with the cap on multimodal projects raised to 30% of program funds. This could be a good opportunity for units of the local government to partner on a grant application. Applicants are also able to apply once and be considered for the Mega, INFRA, and Rural Surface Transportation Grants.

20%-40%, INFRA grants can be used for up to 60% of project costs, other Federal assistance can be used to cover up to 80% of the project costs

#### **MEGA PROGRAM**

This new National Infrastructure Project Assistance grant program will support multi-modal, multi-jurisdictional projects of national or regional significance that also improve safety and mobility. This grant has 5 billion available until expended through Fiscal Year 2026. Eligible projects include the national highway system, which makes this a good option for the Congress Parkway and Decatur (\$) 20%-40%, MEGA grants can be used for up to 60% of project costs, other Federal assistance can be used to cover up to 80% of Pike project.

### STRENGTHENING MOBILITY AND REVOLUTIONIZING TRANSPORTATION (SMART)

20%, could be greater than 20%, but other Federal programs may be used to cover the 20% local match

The SMART is a discretionary grant that provides funding for advanced smart community technology and systems to improve the efficiency and safety of the transportation network. The program allots 100 million per year over four years starting in 2022. This is a good opportunity to upgrade traffic signaling. Stage 1 does not require a local match. Stage 2 local matching has not been determined

#### **RURAL SURFACE TRANSPORTATION GRANT**

This new competitive grant program will improve and expand surface transportation infrastructure in rural areas, increasing connectivity, improving safety and reliability of the movement of people and freight, and generating regional economic growth. The grant program includes 2 billion dollars, has been active for one year, and will remain available until Fiscal Year 2026.

USDA COMMUNITY FACILITIES PROGRAM

This program through the US Department of Agriculture provides funds through direct loans to develop essential community facilities in rural areas, which is defined as less than 20,000 residents. These facilities can include street improvements and must demonstrate community support. This could be a good option to pursue for the Eureka Trail extension. Local match varies based on select criteria

#### APPALACHIAN REGIONAL COMMISSION

This agency uses Congressionally appropriated funds for investments in counties across the state that are in Appalachia. These grant opportunities begin at the state government level and must be pursued through the state program manager.

### HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

This program aims to reduce traffic fatalities and serious injuries on all public roads, including non-State-owned roads.



## **Funding Sources (cont'd)**

### State

### **TRANSPORTATION ALTERNATIVES PROGRAM (TAP)**

This program provides funding for a variety of generally smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, and others. TDOT is responsible for distributing these funds to all local governmental agencies. This wraps up programs like the Recreational Trails Program and Safe Routes to School.



20% local match

### **MULTIMODAL ACCESS GRANT (MMAG)**

This is a state-funded program that supports pedestrian, bicyclist, and transit needs through infrastructure projects along state routes. The 2023 cycle has a maximum project budget limit of \$1.25 million.



5%-10% local match

### TDEC LOCAL PARKS AND RECREATION FUND (LPRF)

This grant provides funding to local governments to aid in the purchase of land for parks, greenways, trail development and other recreational facilities.



50% local match

#### TDOT TRANSPORTATION MODERNIZATION ACT

This new bill was recently passed that will provide 15 times the amount of money that is normally budgeted for counties and their highway departments at 300 million dollars. The funds can be applied to state roads for maintenance and infrastructure projects that increase access to jobs, reduce congestion, and increase efficiency.

### **HEALTHY BUILT ENVIRONMENTS (HBE)**

This program, funded by the Tennessee Department of Health, provides funding for a variety of generally smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails and others that contribute to improving public health outcomes. Municipalities must submit a Letter of Intent and, if accepted, are then invited to apply. Projects are funded by reimbursement.



Varies depending on project type

### Local / Other

#### PEOPLE FOR BIKES COMMUNITY GRANT PROGRAM

This organization provides annual funding up to \$10,000 for projects that make biking more accessible and enjoyable in communities across the US. The program accepts applications from city or county agencies/departments that work locally to build bike lanes, paths, trails, and even bike racks, parking, and storage facilities.

### **TAX REVENUE**

The City of Athens can use tax revenue or tourism proceeds for funding or supplementing bicycle and pedestrian projects.

### **Stakeholders & Partners**

The opportunity to implement infrastructure projects is greater than ever. As more and more funding sources become available, projects that seemed impossible to implement due to funding limitations or a lack of partnerships are now more likely. It will be key for the City of Athens to establish relationships with regional offices and organizations that may provide technical assistance and additional resources. The City of Athens could consider the following partners as stakeholders for future bicycle and pedestrian projects:

### Local















**OTHERS:** Local non-profits

### Regional













**OTHERS:** McMinn County Health Department

### State



Department of **Economic &** Community Development Health

Department of

Department of **Tourist Development** 

**TDOT** Department of Transportation

### **Next Steps**

The City of Athens can take several approaches to funding the priority projects in the Bicycle and Pedestrian Plan. Outlined below are various steps and options the city can look into implementing:



#### **ADOPT THIS PLAN!**

The first step in implementation is to get this plan adopted. Adoption means that regional and state partners, like TDOT, will recognize this plan as official City policy.



### START WITH IDENTIFIED HIGH-PRIORITY PROJECTS

Higher priority projects touch on locations and areas of emphasis more likely to compete among different funding programs.



### **REVIEW AND REFINE COST ESTIMATES**

Cost estimates are subject to change with both time and inflation. When applying for grants, reasonably accurate cost estimates are essential.



### **IDENTIFY APPROPRIATE GRANTS** & LOCAL / REGIONAL PARTNERS

Different projects will be competitive among different grant programs. When evaluating grants to apply for, consider the following:

- Local or Regional Partners: these stakeholders may have community or regional goals that align
- Packaging or Phasing Projects: some projects may be more competitive in phases, or as part of a group of similar projects



### **SECURE LOCAL MATCH COMMITMENTS**

Local match dollars can be difficult to come by. Securing support from City Council, or from local or regional partners, can help to show a project is "shovel-ready."

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