

Alabama Statewide Bicycle and Pedestrian Plan



2025



Prepared by Gresham Smith for the
Alabama Department of Transportation



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Executive Summary

Introduction

Walking and bicycling are important elements of every transportation system, allowing people of all ages and abilities to access everyday needs, including work, education, health care, and shopping. The purpose of the **Alabama Statewide Bicycle and Pedestrian Plan** is to establish a vision that supports walking and bicycling as modes of transportation in Alabama. Developed by the Alabama Department of Transportation (ALDOT) and stakeholders from across the state, the statewide plan aims to guide investments in bicycle and pedestrian facilities and programs that achieve the greatest improvements within limited available funding.

Providing safe bicycle and pedestrian facilities is the overriding focus of the statewide plan and underpins its suggested actions. As walking and bicycling have increased across Alabama and the nation, a broad range of policies, plans, guidelines, and standards have been developed to integrate the two modes safely into the overall transportation system. These serve as the foundation for the statewide plan and help inform the plan's guidance on pedestrian and bicycle safety, access, and economic development.



Source: Gresham Smith

Federal and State Laws, Policies, Plans, Programs, and Standards

Since passage of the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL) in 2021, federal, state, and regional transportation agencies have expanded their efforts to improve walking and bicycling conditions throughout the United States and across Alabama. The IIJA created new requirements and initiatives to improve bicycle and pedestrian infrastructure and safety, including:

- All states and metropolitan planning organizations (MPO) must spend a portion of their funding on Complete Streets activities;
- States must create a Vulnerable Road User (VRU) assessment;
- The Federal Highway Administration (FHWA) published the 11th edition of its Manual on Uniform Traffic Control Devices (MUTCD); and
- New discretionary grant programs, including Safe Streets for All (SS4A), Safe Routes to School (SRTS), and Active Transportation Infrastructure Investment Program (ATIIP).

At the state level, the *Alabama Statewide Transportation Plan* and *Alabama Strategic Highway Safety Plan* provide the policy foundation for bicycle and pedestrian transportation in the state, emphasizing an improved traffic safety culture and an efficient, interconnected transportation system that supports economic development, preserves the quality of the environment, and enhances quality of life. Existing statewide walking and bicycling policy goals include:

- To measure success in preserving the environment and enhancing the quality of life, the statewide transportation plan identifies miles of sidewalks/ bike trails, both on-road and off-road, as a system performance measure; and
- The latest update to the *Strategic Highway Safety Plan* renewed Alabama's commitment to its "Towards Zero Deaths" policy with a target of reducing traffic fatalities and serious injuries by 50% each by 2040.

At the regional and local levels, many of Alabama's MPOs, regional planning organizations (RPOs), and cities have standalone bicycle and pedestrian plans. Complementing the state, regional, and local agency initiatives are many statewide, regional, and local advocacy organizations including the Alabama Bicycle Coalition (AlaBike), which promotes bicycling safety, access, and education and advocates for a safer road environment for all users.

Existing Conditions and Trends

Public and stakeholder outreach served as a key component of the planning process for the **Statewide Bicycle and Pedestrian Plan**. The planning process relied on multiple outreach tools including a project advisory committee, online surveys, and regional workshops. Based on guidance from the Project Advisory Committee and input received from stakeholders, the following vision statement, goals, and objectives were developed for walking and bicycling in Alabama.

Vision Statement, Goals, and Objectives

Vision Statement

Alabama is a state where walking and bicycling are safe, comfortable, and convenient modes of transportation in communities across the state for people of all ages and abilities.

Goals and Objectives

Goal A: Improve safety for bicyclists and pedestrians of all ages and abilities.

1. Identify and address high priority safety locations and corridors.
2. Educate users on safe interactions among motorists, bicyclists, and pedestrians.
3. Implement laws and regulations consistently.

Goal B: Develop complete and connected bicycle and pedestrian systems.

1. Improve bicycle and pedestrian networks, where appropriate.
2. Address bicycle and pedestrian needs, if appropriate, in phases of project development, routine maintenance, and system preservation.
3. Coordinate state improvements with local and regional goals and objectives.

Goal C: Support state, regional, and local economic development.

1. Link bicycle and pedestrian systems with other modes of transportation (such as air, rail, and transit).
2. Address bicycle and pedestrian connectivity in major employment and activity centers.

Goal D. Expand travel options for all transportation system users and protect the natural environment.

1. Expand and improve bicycle and pedestrian access to basic goods and services such as food, education, health care, parks, and transit.
2. Encourage walking and bicycling for shorter everyday trips (e.g., school, shopping, social).
3. Preserve and protect the natural environment.

Trends

To realize the long-range vision and achieve the plan's stated goals and objectives, recommended improvements need to take into consideration existing conditions and trends. Chief among the trends characterizing the state of walking and bicycling in Alabama are safety, mode share – the percentage of trips taken by different transportation modes, access and equity, and economic development.

Safety

Similar to national trends, pedestrian and bicycle crashes have experienced a general decrease in Alabama between 2019 and 2023. Fatalities and injuries decreased sharply in 2020 and have slightly risen since, though not to the levels of 2019. The dramatic decrease in 2020 corresponds with the COVID-19 pandemic, and likely reflects the general decline in total transportation activity.

By a large margin, most Alabama bicycle and pedestrian crashes occur between 4:00 PM and 9:59 PM. This could be a result of multiple factors. The evening rush hour brings a considerably higher volume of traffic compared to other times of day, including those who commute by car, bus, or bicycle, or on foot. The fact that more people are traveling increases the opportunities for a crash. In areas of the state without proper bicycle and pedestrian facilities, those who bike or walk must compete with heavier-than-usual vehicular traffic on the roadways, which creates dangerous conditions. During and after sunset, bicyclists and pedestrians may suffer from decreased visibility on the road, particularly in areas that lack adequate lighting.

Commuting Mode Share

At the time of the US Census Bureau's 2022 American Community Survey (ACS), approximately 2.4% of employees walk to work, and less than 1% of employees bike to work.

Although pedestrian and bicycle commuting shares are traditionally lower in the southeast United States, Alabama is one of five states that experienced an increase in pedestrian commuters between 2019 and 2022 (3% higher in 2022 than in 2019.) Overall, though, Alabama ranks last in the United States for pedestrian commuter bicycling and fourth-from-last in bicycle commuting levels.

Accessibility and Equity

While walking and bicycling are considered leisure activities for many people, there are many others who rely on walking and bicycling for everyday transportation needs. Table 01 highlights groups of people who may lack access to a motor vehicle and/or are unable to drive a motor vehicle in Alabama. Nearly 108,000, or 5.6%, of households in Alabama do not have a vehicle. Six metropolitan areas in Alabama have a percentage of households without a vehicle that equals or exceeds the statewide average: Anniston-Oxford, Columbus, Dothan, Mobile, Montgomery, and Tuscaloosa.

Table 01. Key Statewide Demographics

Category	Estimate
Enrolled in school (K-12)	738,944
College and university students	295,000
Persons 65 years and older	913,013
Households below poverty level	800,395
Households with no vehicles	108,000

Transportation is the second-highest expenditure for households in the United States, exceeded only by housing costs, and personal vehicles are a major expense for low-income households. In addition to the initial purchase, vehicles require ongoing operating costs for gasoline, maintenance, taxes, and insurance. For many households, foregoing vehicle ownership and relying on walking, bicycling, and/or transit makes daily travel more affordable.

Economic Development

In addition to the household economic benefits of walking and bicycling - which can also translate into greater local spending, many states and communities are investing in pedestrian and bicycle facilities to support economic development. Cities and states as varied as Texas; Portland, Oregon; and Wisconsin have measured the economic impact of bicycle-related tourism and events. Each study found that bicycling increases jobs, tax revenue, and consumer spending.

In Alabama, all travelers spent an estimated \$23.5 billion in 2023, or approximately 8.3 percent of the state's gross domestic product. Notably, the 2021 Statewide Comprehensive Outdoor Recreation Plan (SCORP) found increased participation rates for walking and biking in Alabama versus the 2012 version of the document. Over 65% of Alabama households enjoyed outdoor recreation time over the past year. Most people (45.3%) spent their outdoor recreation time walking, followed by jogging or running at 21.8%. Biking on a paved street or path was the seventh-most popular activity with a 14.7% participation rate.

In addition to high participation levels, walking and biking also represent some of the highest rates of unmet demand for local facilities. Additional local paved walking/jogging paths had a 23.8% request rate, the highest of any facility type. Paved bike trails ranked sixth with a 10.0% request rate.

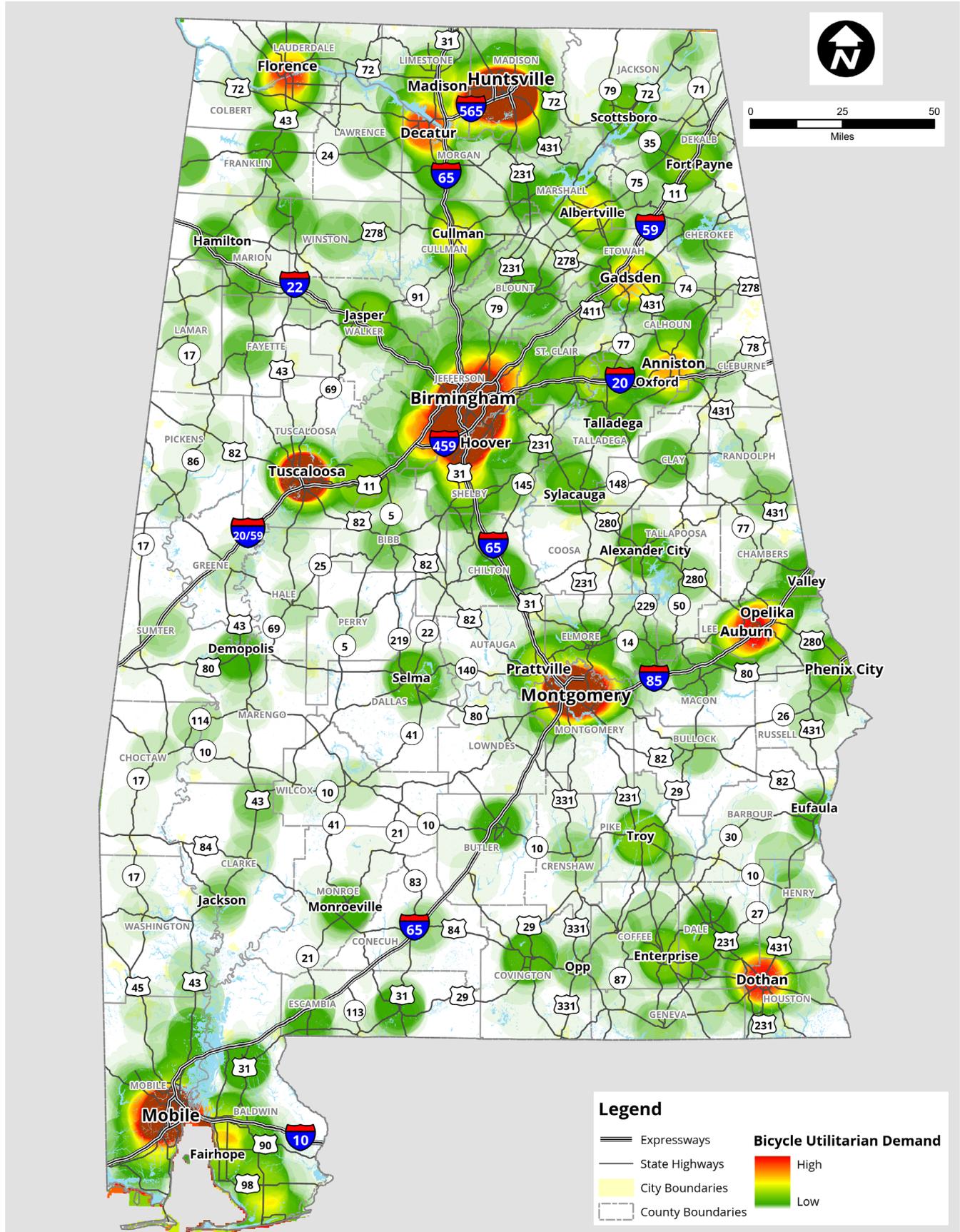
Demand Analysis

Alabama is a rich mix of cities, towns, and rural communities, and walking and bicycling can be an important part of daily life and travel in each of these areas. To estimate the potential demand for walking and bicycling across the state, six factors that influence a person's decision to walk or bicycle were evaluated and mapped. The factors, listed below, help identify where potential demand is greatest and which corridors should subsequently be prioritized for pedestrian and bicycle improvements.

- Population density;
- Employment density;
- Poverty;
- Transit access;
- Proximity to colleges and universities;
- Proximity to K-12 schools; and
- Number of pedestrian- or bicycle-involved crashes.

Figure 01 illustrates the results for utilitarian bicycling demand in Alabama. For both walking and bicycling, the greatest potential demand is found in urban areas, low-income areas, and areas with colleges and universities. A second round of demand analysis considered bicycle tourism travel and evaluated proximity to recreation trails, scenic byways, state and national parks, wildlife management areas, and state historic sites, in addition to population density. The bicycle tourism demand results can help support future efforts to plan bicycle routes in corridors between cities and towns.

Figure 01. Bicycle Utilitarian Demand



Bicycle and Pedestrian Suggestions

Building on the analysis of existing conditions trends and public input, the plan suggests a set of strategies and actions to improve bicycle and pedestrian transportation in Alabama. Augmenting the suggested strategies and actions is a potential statewide bicycle corridor map that establishes the framework for developing a state bicycle route system that can support safe and efficient bicycle travel at multiple geographic scales – local, regional, state, and national.

Priority Strategies and Suggested Actions

From more than 25 potential strategies to improve walking and bicycling in Alabama, stakeholders and the general public prioritized three fundamental strategies focused on safety, access, and economic development. Each of the three priority strategies, summarized in Table 02, includes corresponding suggested actions to support implementation and help achieve the plan's overall goals and objectives.

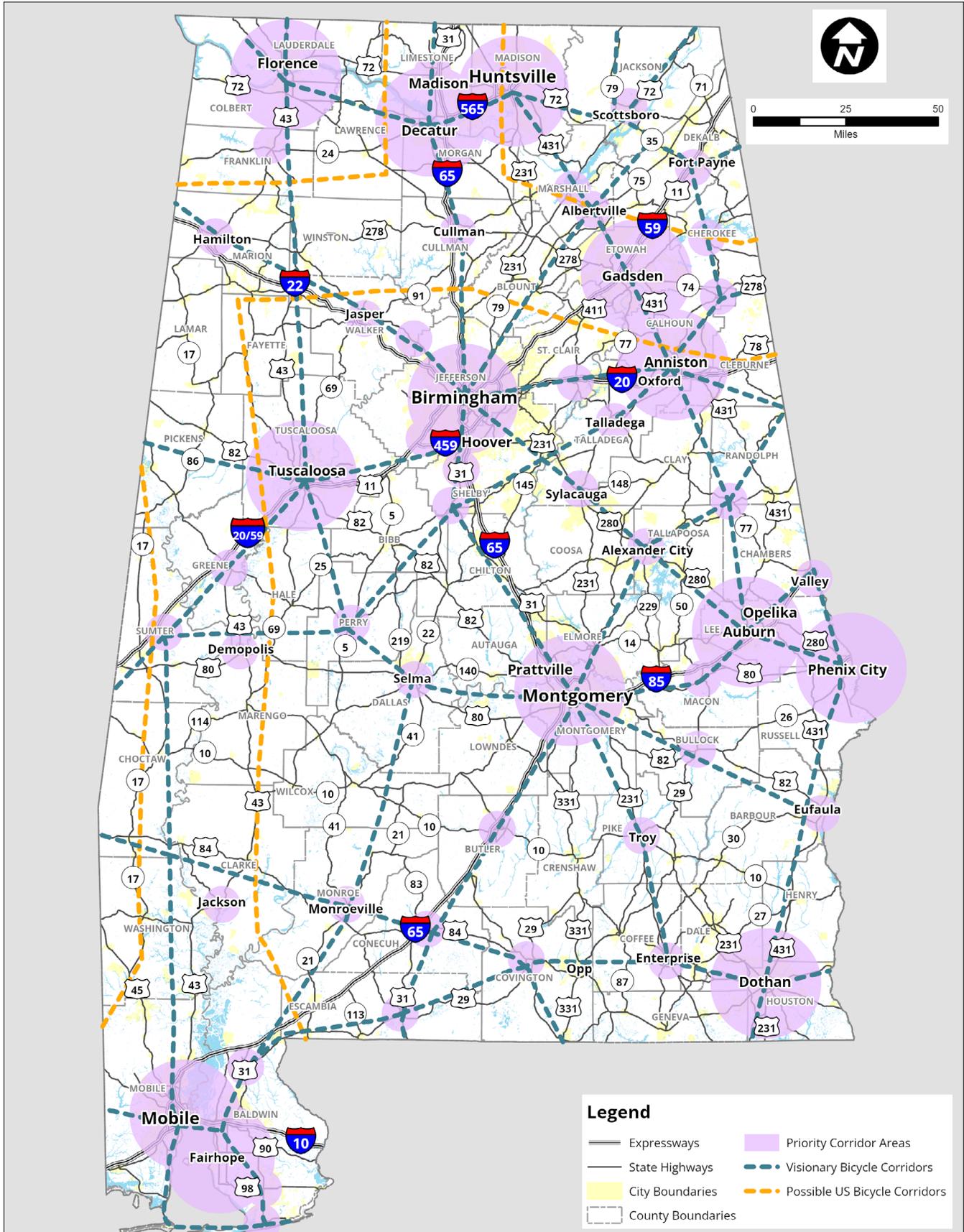
Potential Bicycle Corridor Plan

Additionally, to support the future development of a comprehensive system of statewide bicycle routes, the plan also identifies a network of potential bicycle corridors. The corridors (Figure 02) highlight areas with higher potential for bicycle transportation demand and connections among them. Corridors within areas of higher potential for bicycle transportation demand are defined as priority corridors, and corridors between these areas and other natural and cultural destinations are characterized as vision corridors. For the purpose of this plan, both priority and vision corridors are delineated to guide future detailed bicycle route planning and development. It is important to note that future bicycle routes may ultimately include some combination of state highways, county roads, local streets, and trails, as well as different bikeway facilities – including shared lanes, paved shoulders, bicycle lanes, bicycle boulevards, and shared use paths. Accordingly, developing these potential corridors into bicycle routes would require strong interagency and interjurisdictional collaboration. Statewide and local stakeholder groups, such as the Alabama Bicycle Coalition, may play a critical role when planning for potential bicycle corridor development.

Table 02. Key Findings

Priority Strategy	
1.	Prioritize Pedestrian and Bicycle Safety Programs and Improvements
Suggested Actions	
a.	Provide Technical Training on Pedestrian and Bicycle Facility Planning and Design
b.	Identify Bicycle and Pedestrian Safety Champions
Priority Strategy	
2.	Safe Walking, Bicycling, and Driving Educational Campaigns
Suggested Actions	
a.	Review National Resources and Guides for Public Safety Initiatives
b.	Collaborate on Bicycle and Pedestrian Safety Campaigns
Priority Strategy	
3.	Improve Connections between Pedestrian and Bicycle Facilities on State Highways and Local Greenway and Shared Use Path Systems
Suggested Actions	
a.	Inventory and Map Existing and Planned Greenways, Shared Use Paths, and Parks
b.	Utilize Best Practices in Greenway and Shared Use Path Planning and Design
c.	Collaborate with Public and Private Sector Partners on Economic Development Opportunities Related to Greenway and Shared Use Path Systems

Figure 02. Potential Bicycle Corridors



Implementation

Identifying priority strategies, recommended actions, and a statewide bicycle corridor plan, the previous section established a framework for meeting the goals and objectives of the Alabama Statewide Bicycle and Pedestrian Plan. The final section of the plan focuses on a series of steps to help implement the suggestions. The implementation steps or tools are intended to provide a strong foundation for improving walking and bicycling in Alabama and support the full range of suggested actions.

Design Guidance

There are many ways to include walking and bicycling facilities in transportation corridors and systems. While roads should be designed to accommodate pedestrian and bicyclists to ensure safe travel conditions, different contexts and conditions require different approaches to facility selection and design. Design guidance can be used to incorporate walking and bicycling facilities routinely in construction, reconstruction, and 3R projects, or select improvements that will enhance facilities on designated state bicycle routes.

For bikeway facilities, contexts and conditions can vary widely, from very rural areas with a few adult bicyclists to large metropolitan regions with a full range of users. The design guidance presented in this section emphasizes a “low-stress bicycle network,” or bike facilities that are safe and comfortable for all users. Generally, as vehicle speeds and traffic volume increase on a roadway, bicyclists should be afforded greater protection.

Similar to bikeways, pedestrian facilities guidance is organized around development patterns, traffic volumes, and vehicular speeds. The more urban an environment, and the higher the traffic volumes and speeds are along a roadway, pedestrian facilities should provide greater magnitudes of comfort and protection.

In addition to bicycle and pedestrian facility selection and design, there are several additional design considerations that have a significant impact on walking and bicycling. Chief among these are intersection/crossing design, rumble strips, and access controlled corridors. Each of these issues was highlighted during the statewide planning process by stakeholders and the public. Importantly, the first two issues, intersection/crossing design and rumble strips, are addressed in two new ALDOT guidance manuals – *Guidance for Road Safety Assessments and Reviews* (2016) and the *Vulnerable Road User Safety Assessment* (2023). The third issue, access controlled corridors, will require state, regional, and local coordination to identify alternate on-road or off-road routes that safely connect intersecting pedestrian and bicycle routes.

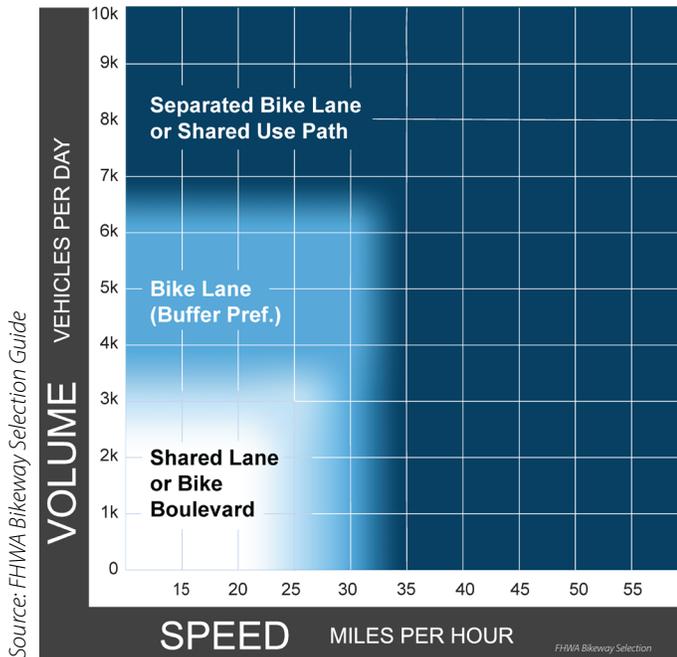


Figure 03. Suburban and Urban Bicycle Facility Type Guidance



Source: Gresham Smith

Figure 04. Example of Rural Pedestrian Facility



Source: Gresham Smith

Figure 05. Example of Suburban/Urban Pedestrian Facility

Technical Memorandum A: Bicycle & Pedestrian Laws, Policies, Plans, Programs, and Standards

2024



Alabama Statewide Bicycle and Pedestrian Plan



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Alabama Department of Transportation

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Introduction

Walking and bicycling facilities are vital for connected communities. In recent years, both demand and funding for walking and bicycling facilities have increased in Alabama and across the nation. A broad range of legislation, planning documents, and best practices have been developed to ensure safety and convenience for all road users, including bicyclists and pedestrians. Many of these new policies and standards serve as the foundation for this edition of Alabama's statewide plan and help inform the plan's key recommendations on safety, mobility, and equity.

Federal Laws, Policies, Plans, and Programs

Infrastructure Investment and Jobs Act (IIJA)

The *Infrastructure Investment and Jobs Act* (IIJA), also known as the *Bipartisan Infrastructure Law* (BIL), was signed into law in November 2021. The IIJA is landmark legislation for American infrastructure, including transportation systems. As the largest infrastructure investment in United States history, the IIJA provides \$550 billion in funding for roads, bridges, electric vehicles, transit, water, and broadband between fiscal years 2022 and 2026.¹ According to the White House,

"The bipartisan *Infrastructure Investment and Jobs Act*:

- Makes the largest federal investment in public transit ever
- Makes the largest federal investment in passenger rail since the creation of Amtrak
- Makes the single largest dedicated bridge investment since the construction of the interstate highway system
- Makes the largest investment in clean drinking water and waste water infrastructure in American history, delivering clean water to millions of families
- Ensures every American has access to reliable high-speed internet
- Helps us tackle the climate crisis by making the largest investment in clean energy transmission and EV infrastructure in history; electrifying thousands of school and transit buses across the country; and creating a new Grid Deployment Authority to build a resilient, clean, 21st century electric grid"²

By project category, the IIJA includes funding for:

- Roads and other major projects, including bridge repair and replacement
- Upgrading the electrical grid, diverting from fossil fuels to clean energy
- Modernizing and expanding passenger and freight railways
- Broadband expansion
- Clean drinking water nationwide
- Reducing water and power systems' vulnerability to weather events
- Upgrading public transit
- Airport maintenance and sustainability improvements
- Environmental remediation, including hazardous waste cleanup
- Ports
- Transportation safety
- Electric public transit
- A nationwide electric vehicle charger system
- Reconnecting communities divided by current infrastructure³

¹<https://www.fhwa.dot.gov/bipartisan-infrastructure-law/>

²<https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2021/08/02/updated-fact-sheet-bipartisan-infrastructure-investment-and-jobs-act/>

³<https://www.congress.gov/bill/117th-congress/house-bill/3684>

Complete Streets Initiative

The IJIA dictates that all states and metropolitan planning organizations (MPO) must spend a portion of their funding on Complete Streets activities, including policies, planning, or implementation. A Complete Street is a facility that provides safety and mobility for all road users, regardless of age, ability, or mode of transportation.⁴

Vulnerable Road User (VRU) Safety Assessment

Another stipulation of the IJIA requires all states to create a **Vulnerable Road User (VRU) Safety Assessment**. VRUs include pedestrians, bicyclists, and people using mobility devices, as well as highway workers.⁵

VRU Safety Assessments summarize historical VRU safety trends, assess VRU safety, outline projects, and establish strategies to reduce VRU fatalities. These include infrastructure projects, road safety audits, accelerated delivery implementation, and emerging data for proactive VRU assessments.

Alabama's VRU Safety Assessment is detailed later in this document. Other VRU Safety Assessments reviewed for this Memo include those of southeastern peer states.

Florida found that 38% of pedestrian and bicyclist fatalities and serious injuries occurred in the same 1,259 miles of roadway. The Assessment identified 22 one-mile segments out of those 1,259 miles as the highest-priority locations for safety improvements. Florida's VRU Safety Assessment is built around strategies to make those miles of roadway safer for all users.⁶

Georgia's VRU Safety Assessment found that bicyclist and pedestrian fatalities increased 8% between 2007 and 2021. The Assessment found 6 factors that contributed to VRU fatalities:

- "Locations with high social vulnerability (age, disability, income, minority status, and transportation access),
- Transit stop presence,
- Locations in proximity to schools,
- Undivided (i.e., no median) and high lane number roadways,
- Principal and minor arterials, and
- Locations with higher speeds.

Additionally, analysis shows that 77% of VRU fatalities occur in non-daylight conditions."⁷

Louisiana developed a series of strategies to improve safety outcomes for VRUs. The strategies fall into 7 categories: Common Crash Characteristics, Best Practice Resources, Pedestrian and Bicycle Infrastructure Countermeasures, Education and Outreach Strategies, Programmatic or Policy Strategies, and Data Collection Strategies. The wide variety of approaches by LADOTD is meant to tackle VRU fatalities from all sides, per USDOT's Safe System Approach.⁸

Mississippi's DOT found that nearly 7% of its urban collectors and arterials were at the highest risk level for VRUs; in fact, these corridors account for one-quarter of VRU serious injuries on urban collectors and arterials statewide. Mississippi's strategies to combat poor VRU safety outcomes primarily consist of Proven Safety Countermeasures, including leading pedestrian intervals at intersections, adding sidewalks and bike lanes, and incorporating roundabouts.⁹

Similarly, **Tennessee** also plans to use Proven Safety Countermeasures to improve VRU safety. TDOT proposes appropriate speed limits, crosswalk visibility enhancements, and pedestrian refuges, among other solutions such as traffic calming measures, physically separated bike lanes, and protected intersections. Fatal and severe bike crashes have fluctuated between 2018 and 2022, but Tennessee has seen a steady increase in deadly and severe pedestrian accidents during the same time period.¹⁰



Source: ALDOT

⁴<https://www.transportation.gov/sites/dot.gov/files/2022-01/BIL-Safety-Fact-Sheet.pdf>

⁵https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-10/VRU%20Safety%20Assessment%20Guidance%20FINAL_508.pdf

⁶https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/safety/shsp-2021/fdot_vru_safetyassessment_nov-2023.pdf?sfvrsn=83097770_1

⁷https://www.dot.ga.gov/DriveSmart/Travel/BikePed/Vulnerable_Roadway_User_Safety_Assessment.pdf

⁸https://www.dotd.la.gov/media/01hiyzmd/ladotd-vru-assessment_final_2023-11-14.pdf

⁹<https://mdot.ms.gov/documents/Highway%20Safety/Plan/2024%20Mississippi%20VRU%20Safety%20Assessment.pdf>

¹⁰https://www.tn.gov/content/dam/tn/tdot/multimodaltransportation/office-of-multimodal-planning/TDOT%20VRU%20Safety%20Assessment%20Final%20Draft_11-13-2023_v2.pdf

Manual on Uniform Traffic Control Devices (MUTCD) Updates

To enhance safety, the IIJA mandates that the FHWA publish an updated **Manual on Uniform Traffic Control Devices (MUTCD)**. In particular, the IIJA seeks updates regarding the protection of vulnerable road users.⁴ FHWA released the MUTCD 11th Edition in December 2023 as a result. Specific recommendations concerning bicycle and pedestrian-related infrastructure include:

- Crosswalks and pedestrian signals included at signalized intersections;
- Accessibility measures, including accessible pedestrian signals and audible information devices;
- New guidelines for setting speed limits;
- Two-stage bicycle turn box;
- Counterflow bike lanes; and
- Bicycle lane bend-outs at intersections.¹¹

Safe Streets for All (SS4A)

Under the IIJA, states directly receive infrastructure funding and have the opportunity to compete for additional funding via new grant programs created by the Act. A major funding opportunity is the newly created *Safe Streets for All* (SS4A) program. SS4A will provide \$5 billion in grant funding over fiscal years 2022-2026 to safety action plans that will reduce deaths among all road users, including bicyclists and pedestrians.¹²

Safe Routes to School (SRTS)

The *Safe Routes to School* (SRTS) program was revived and reinvigorated by the IIJA. SRTS was created in 2005 to improve pedestrian and bicyclist safety and encourage more students to walk or bike to school. The SRTS program funds both infrastructure (e.g., bike lanes or crosswalks) and non-infrastructure (e.g., education campaigns or school zone traffic enforcement) activities. SRTS was created by the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) in 2005 and has since undergone several transformations via various federal transportation funding bills, such as *Moving Ahead for Progress in the 21st Century* (MAP-21) in 2012 and *Fixing America's Surface Transportation Act* (FAST Act) in 2015. Most recently, the IIJA recodified SRTS and expanded the program to include high schools.¹³

Transportation Alternatives Set-Aside Program (TA Set-Aside)

Funding for the *Transportation Alternatives Set-Aside Program* (TA Set-Aside), formerly known as the *Transportation Alternatives Program* (TAP), was nearly doubled for fiscal years 2022-2026 than the IIJA. The TA Set-Aside program supports small-scale multimodal projects at the state or local level. Funding from the program may be used for SRTS projects, as well as other pedestrian and biking facility and safety projects.

Reconnecting Communities and Neighborhoods (RCN) Program

The *Reconnecting Communities and Neighborhoods* (RCN) program is a new grant opportunity created by the IIJA. Its goal is to fund projects that mitigate barriers to mobility within a community. The RCN program focuses on communities that have been divided by infrastructure and supports projects that improve access and economic development for historically disadvantaged populations. Projects funded may involve removing, reimagining, or otherwise reducing the harmful effects of divisive infrastructure.¹⁴

Strengthening Mobility and Revolutionizing Transportation (SMART)

The *Strengthening Mobility and Revolutionizing Transportation* (SMART) program's goal is to improve the efficiency and safety of transportation systems through the use of advanced technology. The program was established by the IIJA and awards \$100 million annually from fiscal years 2022-2026. SMART grants support all types of technologically enhanced infrastructure, including bike and pedestrian systems.¹⁵

Active Transportation Infrastructure Investment Program (ATIIP)

The IIJA created the *Active Transportation Infrastructure Investment Program* (ATIIP) through FHWA's Bicycle and Pedestrian Program to improve multimodal transportation safety and infrastructure. ATIIP awards Planning and Design or Construction grant funding for two types of projects: those that fill in gaps in a community's bicycle and pedestrian network and those that create connections between two or more communities.¹⁶

¹¹ https://mutcd.fhwa.dot.gov/pdfs/11th_Edition/mutcd11thedition.pdf

¹² <https://www.transportation.gov/grants/SS4A>

¹³ <https://www.saferoutespartnership.org/safe-routes-school>

¹⁴ <https://www.transportation.gov/grants/rcnprogram>

¹⁵ <https://www.transportation.gov/grants/SMART>

¹⁶ https://www.fhwa.dot.gov/environment/bicycle_pedestrian/atiip/

Fixing America's Surface Transportation (FAST) Act

The IJA's predecessor, the *Fixing America's Surface Transportation (FAST) Act*, was signed into law in 2015. The program authorized \$305 billion for all surface transportation modes for fiscal years 2016 through 2020.

The FAST Act was the first long-term transportation funding initiative passed in over a decade. The legislation was intended to modernize existing transportation programs by cutting red tape and moving to online systems. Additionally, the FAST Act created new grant programs to boost freight movement, established the National Surface Transportation and Innovative Finance Bureau to provide financial assistance for transportation projects, bolstered safety measures, and promoted transit.¹⁷

Moving Ahead for Progress in the 21st Century Act (MAP-21)

The Moving Ahead for Progress in the 21st Century Act (MAP-21) preceded the FAST Act and provided short-term transportation funding. MAP-21 provided \$105 billion in surface transportation program funds over fiscal years 2013 and 2014 and was intended to jump-start safety initiatives and infrastructure improvement projects.¹⁸

Other Federal Legislation

More generally, federal code (23 US Code 135 and 217) establishes a range of bicycle and pedestrian planning, design, and public participation requirements for states and metropolitan planning organizations. These requirements ensure:

- Bicycles and pedestrians shall be given due consideration in comprehensive transportation plans;
- Bicycle and pedestrian facilities shall be considered, where appropriate, in all new construction and reconstruction projects;
- Transportation plans shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians; and
- There shall be reasonable opportunities to comment on plans and programs.^{19,20}

Another important piece of federal legislation ensuring a fully accessible transportation system and impacting usability and safety for all users is the Americans with Disabilities Act (ADA) of 1990. The ADA protects civil rights and establishes accessibility guidelines for a wide range of disabilities, including those that affect mobility, stamina, sight, speech, and hearing, and conditions such as learning disorders or emotional illness. The ADA standards that apply to pedestrian systems have been issued by the USDOT and are based on the United States Access Board's ADA Accessibility Guidelines.

There are a number of provisions that pertain directly to pedestrian accommodations in the ADA. Under Title II, where public pedestrian facilities exist, persons with disabilities must be provided equal access. This is typically accomplished through design features such as curb cuts, ramps, continuous sidewalks, and detectable warnings. In addition, any project that alters the existing public right-of-way and could impact access, circulation, or use (e.g., roadway widening, resurfacing, and reconstruction) must incorporate pedestrian access improvements within the scope of the project.²¹



Source: Gresham Smith

¹⁷ <https://www.transportation.gov/fastact>

¹⁸ <https://www.transportation.gov/map21>

¹⁹ <https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title23-section217&num=0&edition=prelim>

²⁰ <https://www.law.cornell.edu/uscode/text/23/135>

²¹ <https://www.ada.gov/>

Federal Bicycle and Pedestrian Policies and Plans

USDOT policies and guidance establish the overarching framework for the consideration and inclusion of walking and bicycling in transportation plans, programs, and projects. Three guidance and plan documents, in particular, define federal bicycle and pedestrian goals, objectives, and regulations.

- **FHWA Guidance on Bicycle and Pedestrian Provisions of Federal Transportation Legislation** (2023);
- **USDOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations** (2010); and
- **USDOT's National Roadway Safety Strategy** (2022).

The **FHWA Guidance on Bicycle and Pedestrian Provisions of Federal Transportation Legislation's** 2023 update builds on previous iterations of the document. The publication's major goal is to support a "safe, accessible, comfortable, equitable, and integrated multimodal transportation network infrastructure that serves all ages and abilities" nationwide.²²

The USDOT issued a new **USDOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations** in March 2010, updating the 2000 policy statement and supporting the development of fully integrated active transportation networks. The policy statement follows:

"The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide – including health, safety, environmental, transportation, and quality of life – transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes."²³

The USDOT encourages state and local agencies to adopt similar statements to (a) confirm that walking and biking deserve equal recognition as viable transportation modes, (b) ensure there are transportation choices available for people of all ages and abilities, (c) integrate bicycle and pedestrian facilities on limited-access bridges with connections to other streets, and (d) exceed minimum design standards.¹⁷

In January 2022, the USDOT issued its **National Roadway Safety Strategy (NRSS)**, an update to its prior *Safer Roads, Safer People* initiative. The NRSS expands its Safer Roads, Safer People approach into a Department-wide Safe System Approach, comprised of safer people, safer roads, safer vehicles, safer speeds, and post-crash care.

Safer people encompasses includes education campaigns, training programs, and legislative strategies. Safer roads involves the completion of the MUTCD, the launching of the Complete Streets Initiative, and providing both technical and funding assistance to states and local agencies for safety improvements. Legislation and regulation are the main cornerstones of safer vehicles. The safer speeds initiative uses design, technology, education, and legislation to reduce speeding. Post-crash care includes technical assistance and improved systems for emergency medical services personnel, as well as traffic management at accident sites.²⁴

Other federal initiatives include FHWA's *Safe Transportation for Every Pedestrian (STEP)* and *Proven Safety Countermeasures*. STEP is part of FHWA's *Every Day Counts* initiative, and promotes several countermeasures for pedestrian safety: road diets, pedestrian hybrid beacons, pedestrian refuge islands, raised crosswalks, crosswalk visibility enhancements, rectangular rapid flashing beacons, and leading pedestrian intervals.²⁵ FHWA has also outlined 28 countermeasures to improve safety for all road users. Each of the strategies in the *Proven Safety Countermeasures initiative (PSCI)* falls under at least one safety focus area: speed management, intersections, roadway departures, or pedestrians/bicyclists. FHWA encourages transportation officials at all levels to adopt and incorporate the proven safety countermeasures.²⁶

²² https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/guidance_2023.pdf

²³ https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/policy_accom.cfm

²⁴ <https://www.transportation.gov/sites/dot.gov/files/2022-02/USDOT-National-Roadway-Safety-Strategy.pdf>

²⁵ <https://highways.dot.gov/safety/pedestrian-bicyclist/step>

²⁶ <https://highways.dot.gov/safety/proven-safety-countermeasures>

Other Federal-Aid Bicycle and Pedestrian Funding Programs

In addition to the transportation alternatives and the FTA programs previously discussed, bicycle and pedestrian facilities and programs are eligible for federal funding through a number of federal-aid highway programs, primarily four of the core highway formula programs.

- **National Highway Performance Program (NHPP)** – The program supports infrastructure projects on the National Highway System (NHS), which includes the Interstate System highways and bridges, and other major roads important to the nation’s economy, defense, and mobility. The IIJA includes provisions for NHPP funds to be used to improve resiliency against climate change. Bicycle transportation routes and pedestrian walkways on the NHS are eligible for NHPP funds.
- **Surface Transportation Block Grant (STBG) Program** – This is a flexible funding program that can be used to preserve and improve the condition and performance on any federal-aid highway, bridge projects, transit capital projects, and non-motorized transportation routes.
- **Highway Safety Improvement Program (HSIP)** – HSIP funds may be used to fund a variety of bicycle and pedestrian projects that enhance safety on public roads, such as bicycle lanes, paved shoulders, sidewalks, crosswalks, curb cuts, ramps, signal improvements, and traffic calming measures.
- **Congestion Mitigation and Air Quality Improvement (CMAQ) Program** – Funds must be spent in regions that do not meet national air quality standards for ozone and carbon monoxide levels (non-attainment areas) or have recently become compliant (maintenance areas). In April 2005, the Birmingham metropolitan planning area (Jefferson and Shelby Counties with a small portion of Walker County) was designated as an air quality non-attainment area with respect to the National Ambient Air Quality Standards for particulate matter smaller than 2.5 microns in diameter (PM_{2.5}). The planning area was redesignated as a maintenance area in 2013.²⁷ Projects that shift travel to other modes, such as bicycle and pedestrian travel, are eligible for funding.

Other federal programs that currently provide funding for bicycle and pedestrian planning and projects include:

- **Statewide and Metropolitan Planning Programs** – States and metropolitan areas may choose to develop bicycle and pedestrian plans or use the funding to conduct data collection or monitoring for bicyclists and pedestrians;
- **Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Discretionary Grants** – Formerly known as TIGER and BUILD, this is a highly competitive grant program that provides funding for surface transportation projects that will have significant economic impact on a national, statewide, or regional scale;
- **State and Community Highway Safety Grant Program (Section 402)** – Bicycle and pedestrian safety programs are eligible for Section 402 funding. Examples of such safety programs include helmet distribution programs, training in the utilization of bicycle and pedestrian design guidelines, community education programs on safe bicycle use, and public information on crosswalk and school zone safety; and
- **Federal Lands and Tribal Transportation Programs (FLTTP)** – The Tribal Transportation Program (TTP) provides funding to address transportation needs to and within Indian reservations, Indian lands, and Alaska Native Village communities, with the goal of enhancing economic development, self-determination, and employment within these areas. Bicycle and pedestrian projects on tribal lands are eligible to receive funding from the Tribal Transportation Program.

Each of these programs has specific eligibility requirements for bicycle and pedestrian projects. Table A-1 in Appendix A presents a summary of bicycle and pedestrian funding opportunities from federal-aid highway and transit funding programs.

²⁷<https://www.rpcgb.org/air-quality-conformity>

Other Federal Agencies and Programs

US Centers for Disease Control and Prevention

In 2007, the United States Centers for Disease Control and Prevention (CDC) created a Transportation Policy Group to develop a more comprehensive approach to identifying and addressing issues related to transportation and health. Their efforts have extended to include work with the U.S. Department of Transportation, as well as non-federal partners such as the American Public Health Association and the Convergence Partnership for Healthy Eating and Active Living. In 2010, the Centers for Disease Control (CDC) issued its *Recommendations for Improving Health through Transportation Policy*. Key recommendations include:

- Reduce injuries associated with motor vehicle crashes;
- Encourage healthy community design;
- Promote active transportation;
- Expand public transportation;
- Design to minimize adverse health and safety consequences;
- Require research and surveillance;
- Improve air quality; and
- Support professional development and job creation.²⁸

National Park Service

The National Park Service recognizes the importance of bicycle and pedestrian trails in national parks. These trails provide critical linkages between different transportation modes (e.g., personal vehicles and park shuttle buses), allowing park users access to natural areas unreachable by motorized vehicles. The National Park Service operates 11 National Scenic Trails, 21 National Historic Trails, more than 1,300 National Recreational Trails, as well as several connecting and side trails, and “rail banked” rail trails. These trails total nearly 100,000 miles in length. Within the National Parks, the trail inventory includes over 21,000 miles of trails.

The National Park Service promotes and encourages bicycle and pedestrian use through a number of programs.

- Washington DC’s, Mt. Vernon, Rock Creek, and Capital Crescent Trails are used by thousands of commuters each day, helping to alleviate traffic congestion.
- The National Park Service operates bike sharing programs in Washington, DC; San Antonio, Texas; Yosemite National Park; and at several bike sharing stations along the Mississippi River.
- In 2012, Cuyahoga National Park in Ohio partnered with the Cleveland Clinic to initiate the “Walk with Doc and a Ranger” program, where doctors and park rangers lead three- to five-mile walks in the park and discuss health issues, fitness, and how to enjoy the national park.

The National Park Service recently updated its Active Transportation Guidebook to discuss these programs, as well as electric bicycle use, walking and biking safety, new considerations for advancing equity and inclusion in the parks, and emerging mobility technologies to enhance walking and biking.

²⁸<https://www.cdc.gov/transportation/php/about/index.html>



Source: Gresham Smith

State Laws, Policies, Plans, Programs, and Standards

Alabama Bicycle and Pedestrian Laws

The State Code of Alabama has several statutes that address bicycle and pedestrian safety and traveling behavior. Two articles address bicyclists: **Bicycles and Play Vehicles** (Section 32-5A, Article 12) and **Bicycle Safety** (Section 32-5A, Article 13). The **Bicycles and Play Vehicles** article states that all applicable traffic laws apply to bicyclists, and outlines how cyclists should share the road with motor vehicles. The safety article, also known as the *Brad Hudson-Alabama Bicycle Safety Act of 1995*, requires riders age 16 or younger to wear approved protective bicycle helmets. It also requires that all bicycle passengers who weigh less than 40 pounds or are less than 40 inches in height be seated in separate restraining seats.²⁹

Effective September 1, 2015, a new state law requires motorists who are passing bicyclists in the roadway to leave a safe passing distance of at least three feet. This law applies to the following facilities:

- A roadway that has a marked bicycle lane; and
- A roadway without a marked bicycle lane if the roadway has a marked speed limit of 45 miles per hour or less and the roadway does not have a double yellow line separating cars from oncoming traffic indicating a no passing zone.³⁰

Alabama State Code, Section 32-5A, Article 10 outlines the rights and duties of pedestrians in Alabama. These rights and duties include:

- Like motorists, pedestrians are to obey traffic control devices, including traffic signals and pedestrian signals;
- When traffic signals are not in place and pedestrians cross in a marked crosswalk, vehicles are required to yield or stop when the pedestrian is in the half of the roadway (or close to that portion of the roadway) where the vehicle is traveling. When a marked crosswalk is not present, pedestrians are required to yield or stop to motor vehicles before crossing;
- State law prohibits pedestrians from crossing the roadway between adjacent intersections with traffic control signals (except in a marked crosswalk);
- Pedestrians are required to use right side of marked crosswalks where practical;
- Pedestrians are required to use sidewalks if available;

- Motorists shall give pedestrians on sidewalks the right-of-way;
- If sidewalks are not available, pedestrians shall walk on the shoulder, as far as possible from the edge of the roadway; and
- If a shoulder is not available, pedestrians shall walk as far as possible from the edge of the roadway.³¹

Alabama Statewide Transportation Plan and Transportation Improvement Program

The Alabama Statewide Transportation Plan (SWTP) is a long-range, high-level assessment of the State of Alabama's transportation needs. Updated in 2017, the plan is multi-modal and comprehensive in nature, considering roads and bridges, transit, bicycle and pedestrian systems, freight transportation systems, and aviation. The SWTP provides an overview of bicycle and pedestrian systems in Alabama, describing conditions that vary significantly across the state. Key findings of the SWTP include:

- Bicycle and pedestrian facilities have been increasingly emphasized at all levels of government in the state, particularly on the local and regional levels, to meet demand from constituents;
- Most bicycle and pedestrian facilities are built for recreational uses and located only in parks or other natural areas, limiting the expansion of bicycle and pedestrian connectivity;
- In addition to increased connectivity, stakeholders' other top priorities include safety and equity; and
- At the time of the SWTP, approximately 5% of ALDOT's work program budget was spent on bicycle and pedestrian system needs. Assuming a 2% annual inflation rate, the SWTP projected a bicycle and pedestrian budget of \$108 million in 2040.³²

The **Statewide Transportation Improvement Program (STIP)** is Alabama's financially constrained four-year transportation capital improvement program. The STIP includes projects and programs approved in all Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIP), as well as projects developed by ALDOT within urban and rural areas. In Fiscal Year 2023, ALDOT obligated approximately \$13.6 million in TAP funding toward its projects.³³

²⁹<https://www.childrensal.org/services/childrens-health-education-and-safety-center/safety-information/bicycle-safety/bicycle>

³⁰<https://legiscan.com/AL/bill/SB4/2015>

³¹<http://codes.lp.findlaw.com/alcode/32/5A/10>

³²<https://www.dot.state.al.us/programs/pdf/SWTP/SWTP.pdf>

³³<https://www.saferoutespartnership.org/sites/default/files/TAP%20State%20of%20States%20June%202023%20Final.pdf>

Alabama Department of Transportation Bicycle and Pedestrian Plan (2017)

In 2017, ALDOT released an updated statewide **Bicycle and Pedestrian Plan** to guide decisions on where bicycle and pedestrian facilities should be provided. The plan identified a series of statewide bicycle routes and regional connectors, linking a number of cities, towns, state parks, and US bike routes. The recommended statewide bike routes and regional connectors are supplemented in the plan with guidance on where bicycle facilities should be included and how to select the appropriate bicycle facilities in certain settings. For the accommodation guidance, the plan builds on key themes of the USDOT bicycle and pedestrian accommodation policy discussed earlier, including:

- All roadways on which bicycles are permitted are generally considered bicycle facilities;
- On-road accommodations for bicycle travel in highway projects should be considered on new construction and reconstruction projects, given conditions such as:
 - The highway or street is designated as a bikeway in a regionally or locally adopted bike plan or is part of the US Bicycle Route System;
 - The route provides primary access to employment and activity centers;
 - The route provides unique access across a natural or man-made barrier;
 - The highway project will negatively impact the utility of an existing bikeway; and
- Exceptions may be made to the above criteria.

Alabama Carbon Reduction Strategy (2023)

All states are required to develop a Carbon Reduction Strategy (CRS) to identify programs and projects that can help reduce carbon dioxide emissions with regard to transportation activities. Alabama completed a CRS in November 2023. The Alabama CRS identifies “multimodal transportation” as a focus area to help reduce CO2 emissions in the state, and identifies the following strategies and implementation actions. The State will continue to monitor and evaluate projects, programs, and strategies to help reduce CO2 emissions on the transportation network.

Alabama Strategic Highway Safety Plan (2022)

The **Alabama Strategic Highway Safety Plan (SHSP)** is a “data-driven multi-year comprehensive plan that establishes the State’s traffic safety goals, objectives, priorities, and areas of focus, and facilitates engagement with safety stakeholders and partners.” The long-term goal of the plan is to reduce fatalities and injuries on state roads for all roadway users.

The SHSP highlights the following key crash statistics:

- A substantial portion of all traffic crash fatalities and serious injuries are due to four types of driver decisions: speeding, distraction/drowsiness, impairment, and a lack of proper seatbelt/restraint use;
- Distracted driving is a growing behavioral problem;
- Between 2017-2021, over 60% of crashes occurred at intersections;
- Approximately 21% of all crashes occur on rural roads, but represent 60% of all fatalities; and
- While only 11% of Alabama roadways are ALDOT-maintained, they account for approximately 55% of vehicle miles traveled and 57% of fatal and serious injury crashes.

The SHSP identifies pedestrians and bicyclists among vulnerable roadway users (VRUs). VRUs face disproportionately severe outcomes when involved in

Table 03. Strategies & Implementation Actions for Multimodal Transportation

Strategies	Implementation Actions
Pedestrian Facilities	Construct/maintain sidewalks, curb ramps, crosswalks, pedestrian signals, overpasses, & multi-use paths/trails
Bicycle Facilities	Construct/maintain bike lanes, shared lanes, & multi-use paths/trails
Multimodal Access Improvements	Install ramps, bike racks, benches, & shelters; Provide multimodal information & navigational support; Implement transit-oriented development
Transit Service	Introduce more alternative fuel transit vehicles; Coordinate rural transit service; Utilize microtransit
Shared Mobility / Micromobility Options	Implement/increase car share & bicycle share programs; Improve micromobility options

Source: https://www.dot.state.al.us/publications/OfficeEngineer/pdf/FINAL_Alabama_Carbon_Reduction_Strategy.pdf

crashes. Though less than 2% of crashes involve a VRU, non-motorist-involved crashes account for 22% of severe injury crashes and 11% of fatal crashes. According to the SHSP, “non-motorists have less than a 50% chance of survival in crashes involving vehicles traveling at or above 45 mph.”

The four major Emphasis Areas of the SHSP are:

- Behavioral-based Emphasis Areas;
- Infrastructure-based Emphasis Areas;
- At-risk Road Users; and
- Data Systems.

Implementation strategies for behavioral-based emphasis areas, infrastructure-based emphasis areas, and at-risk road users include:

- Visible and targeted enforcement activities for locations identified as being over-represented in crashes caused by a behavioral-based emphasis area;
- Public awareness/education campaigns to educate the general public about safe driving practices that pertain to the behavioral-based emphasis areas; and
- Implementation of engineering solutions, including innovative approaches and Proven Safety Countermeasures, where appropriate.

Implementation strategies for Data Systems involve collecting data via innovative methods and creating a Highway Safety Improvement Program database and tracking system.

The SHSP continues efforts on the “Toward Zero Deaths” (TZD) target goal from the previous edition of the plan. TZD aims to reduce fatalities and serious injuries by 50% each by 2040.

Alabama’s SHSP is meant to work in coordination with other statewide transportation plans, such as:

- Highway Safety Improvement Program (HSIP),
- Highway Safety Plan (HSP),
- Commercial Vehicle Safety Plan (CVSP),
- State Transportation Improvement Program (STIP),
- Transportation Improvement Program (Metropolitan),
- Metropolitan Transportation Plan,
- Statewide Transportation Plan (Long-Range)
- Other state plans (transit, rail, bike, pedestrian)³⁴

Vulnerable Road User Safety Assessment

ALDOT’s **Vulnerable Road User Safety Assessment** was released in 2023. Per IJIA regulations, all states must conduct VRU Safety Assessments in conjunction with SHSP. The document was written to help select VRU strategies and projects to prioritize, as well as to help attain goals set forth in the SHSP. The plan examines socioeconomic data to determine the concentration of VRUs around the state and evaluates VRU crash data to identify a high-injury network. Using criteria it sets forth, the VRU Safety Assessment recommends specific priority projects in each of Alabama’s five regions.³⁵

Projects include updating pedestrian signal timing and striping crosswalks at urban intersections; installing rumble strips and shoulders for walking and biking in rural areas; and installing buffered, protected, or separated bike lanes along corridors.

Statewide Comprehensive Outdoor Recreation Plan

The **Statewide Comprehensive Outdoor Recreation Plan (SCORP)** was developed to guide the planning and development of outdoor recreational facilities to meet the needs of Alabama’s residents in a balanced and equitable manner. The plan includes recreational trails and constitutes an update of the State Trails Plan. While the recreational trail network is primarily “off-road,” there are opportunities to consider how the **Statewide Bicycle and Pedestrian Plan Update** can support connectivity to these facilities.

Alabama has among the highest obesity rates among all other states and Puerto Rico, and the 3rd highest rates of diabetes and hypertension among residents. This underscores the need to develop a comprehensive and connected recreational system, including trails for walking and biking. The plan includes an assessment of needs for different types of recreational facilities. A statewide survey revealed that walking for pleasure and fitness is the most popular recreational activity, with nearly half of respondents saying they participated in the activity in the past year. However, paved walking/jogging paths and hiking trails consistently rank highly among the facility types that are most desired but unavailable across the state. While larger metropolitan areas in Alabama have planned and developed trail networks, there is a continued need to enhance connectivity in and between more rural areas.

³⁴<https://www.dot.state.al.us/publications/Design/pdf/TrafficSafetyOp/SHSP.pdf>

³⁵<https://www.dot.state.al.us/publications/Design/pdf/ALVRUSafetyAssessment.pdf>

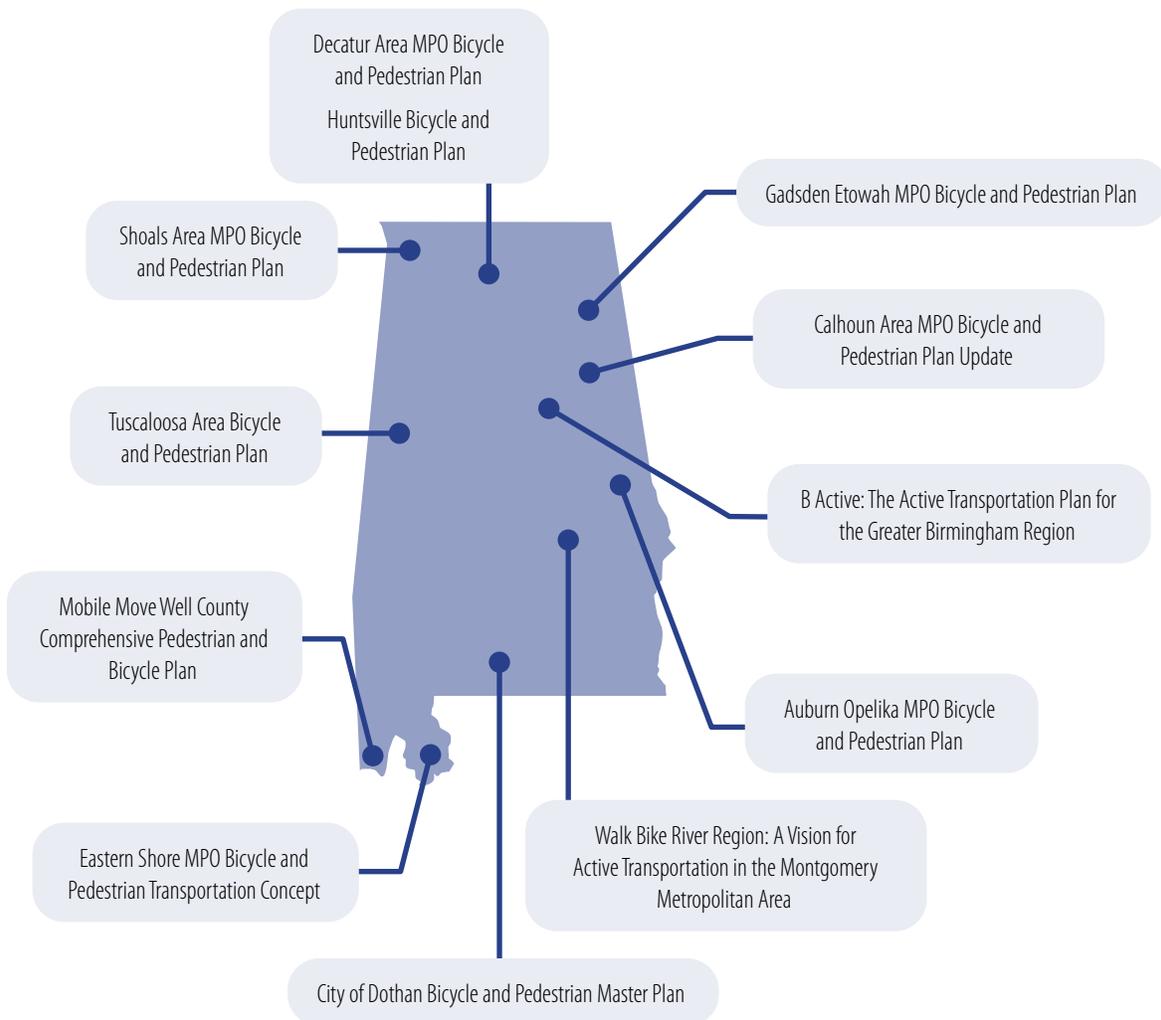
Alabama Bicycle and Pedestrian Design Guidelines

For on-street and off-street bicycle facilities, designers refer to AASHTO’s **Guide for the Development of Bicycle Facilities** (2012) and AASHTO’s “Green Book,” **A Policy on Geometric Design of Highways and Streets** (2018). In addition, FHWA’s **Separated Bike Lane Planning and Design Guide** was released in May 2015. For signing and striping guidance, designers refer to the **Manual on Uniform Traffic Control Devices (MUTCD)** (2024). For the design of pedestrian facilities, ALDOT has standards and special drawings that show curb ramp types, and revised its **Guideline for Operation (GFO)** in 2021 detailing the cross-slope and longitudinal grade design criteria for federal-aid sidewalk projects. For additional pedestrian guidance, designers refer to the **Americans with Disabilities Act Guidelines (ADAG)** and the **Public Right of Way Accessibility Guidelines (PROWAG)**, or AASHTO’s **Guide for the Planning, Design, and Operation of Pedestrian Facilities 2nd Edition** (2021).

Regional and Local Plans

Regional and local planning and transportation agencies play a critical role in the provision of bicycle and pedestrian facilities. Alabama has 14 MPOs and 12 Regional Planning Organizations (RPOs) providing regional transportation planning and program services in urbanized areas with populations greater than 50,000 and rural areas, respectively. Several of the MPOs and RPOs, as well as cities that fall within their jurisdictions, have developed bicycle and pedestrian plans and/or comprehensive plans that include bicycle and pedestrian elements. Many of these areas have also established bicycle and pedestrian advisory committees. A summary of these bicycle and pedestrian initiatives in RPO and MPO areas is shown in Figure 06.

Figure 06. Regional and Local Plans Consulted for This Memo



The **Auburn-Opelika Bicycle and Pedestrian Plan** identifies improvements to help accommodate cyclists and pedestrians and provides an implementation plan to prioritize bicycle and pedestrian projects. Several roadways throughout the region, including State and US routes, are included in the analysis. The plan utilized Bicycle and Pedestrian Level of Service models, which measure how safe and comfortable pedestrians and cyclists on or alongside roadways; an analysis of potential demand for bicycle and pedestrian travel, based on population and employment projections, school enrollments, and other demographic characteristics. Based on these analyses, as well as public feedback, the plan presents a range of facility recommendations, including roadway striping, a road diet, adding a paved shoulder or sidewalk, and a more detailed corridor study. Among State and US routes, the recommendations largely consist of adding paved shoulders for cycling; minor regrading to add sidewalks; or more detailed corridor studies that are needed.

The **B-ACTIVE Plan** is the Active Transportation Plan for the Greater Birmingham region. It establishes a vision for building and expanding the multimodal transportation network – specifically, walking and biking facilities – in Jefferson and Shelby Counties and parts of Blount and St. Clair Counties. The plan identifies and prioritizes projects to build a safer, more connected, and equitable active transportation system for the Birmingham region. The plan includes demand analyses for walking and biking based on the presence of trip generators such as colleges, parks, jobs, and retail, as well as Strava bicycle trip data; and a level of comfort analysis based on traffic volume, speed limits, and other roadway characteristics. The plan establishes a regional network for active transportation. The US and State routes – US 280, US 31, US 78, and SR 79 – are designated as “Policy Roads,” or longer corridors where the selection of walking and biking facilities should be made in the context of surrounding land uses and roadway capacity and operations. The plan recognizes that some of these roadways may require the prohibition of cyclists and pedestrians, or may not warrant the investment in active transportation facilities based on population scarcity or other factors – but that any such exemptions should be documented with supporting data.

The **Calhoun Area MPO Bicycle and Pedestrian Plan** identifies and prioritizes three types of facilities: Share the Road routes, which have signage and pavement markings to make motorists aware of the presence of cyclists with vehicular traffic; Bicycle lanes, which are four feet in width for cyclists to ride adjacent to the shoulder or curb; Multi-use paths, which are paved trails for use by pedestrians and cyclists that fall along roadways with a buffer, or along railroads, creek, or utility easements. No specific projects are identified for US or State routes in the region, US 431 or SR 21. For sidewalks, the plan recommends referring to each jurisdiction’s ADA Transition Plan to prioritize needs.

The **Decatur Area Bicycle and Pedestrian Plan** provides guidance for the development of safe and convenient biking and walking facilities that connect residential areas with commercial centers, parks, schools, and other public and private services. This plan also recommends improving bicycle and pedestrian safety through policy decisions, education, and enforcement. The plan specifically notes that its intent is to address walking and biking as a transportation alternative only, rather than recreation. General recommendations include implementing Complete Streets, or supplementing corridors with context-appropriate bicycle and pedestrian facilities; retrofitting roads to include bike lanes; maintaining existing sidewalks, paved shoulders, and multi-use trails; installing directional signage; encouraging government facilities to provide bicycle parking; and supporting higher-density, mixed-use development to make walking and biking more viable options for transportation.

The **Dothan Bicycle and Pedestrian Plan** was developed to create guidance for the development of bicycle and pedestrian facilities and activities in the Dothan area. The plan examines existing bicycling and pedestrian activity, safety, and demand; assesses opportunities for bicycle and pedestrian facilities; and recommends an on- and off-street walking and biking network. For bicycle facilities, the plan recommends avoiding principal arterials with high volumes, and limits sidewalks to major arterials, minor arterials, and collectors. The plan includes limited segments of on-road bikeways and pedestrian crossings along US 84, US 231, and SR 210.

The **Eastern Shore MPO Bicycle and Pedestrian Transportation Concept** focuses on cycling and walking for transportation rather than recreation. The MPO developed a list of several bicycle and pedestrian routes to help fill gaps in the existing network. Each route was examined for existing infrastructure, traffic speed and volume, and travel demand. Portions of US 90, US 98, and SR 181, were identified as needing wide shoulders to accommodate cyclists traveling for transportation purposes. Some sidewalks along US and State routes are recommended within Fairhope, Robertsedale, Loxley, and Daphne, but sidewalk recommendations primarily fall along local and collector roads.

The **Gadsden Etowah MPO Bicycle and Pedestrian Plan** focuses on improving bicycle and pedestrian facilities and prioritizing projects for future construction. The plan includes an inventory of existing facilities, bike and pedestrian levels of service models, and a demand analysis for bicycle and pedestrian facilities. For bicycle facilities, recommendations include making space for bike lanes through roadway restriping, a road diet, or paved shoulder, or need for a more detailed corridor study. Pedestrian recommendations include minor or major re-grading to install sidewalks, or need for more detailed study. Along US 278, the plan recommends paved shoulders east of Gadsden, limited areas for restriping

for bike lanes, and segments through the heart of Gadsden and west of the city where more detailed study is needed. Similarly, along much of US 431, US 411, and SR 77, the plan identifies a need for a more detailed corridor study, with some segments of SR 77 highlighted for paved shoulders. The plan identifies a need for new sidewalks along portions of US 278 and US 411, with more study needed along other US and state routes in the region.

The **Huntsville Metropolitan Planning Area Bicycle and Pedestrian Plan** aims to develop a system of non-motorized corridors for safe travel and recreational enjoyment by bicyclists and pedestrians. For new construction or reconstruction, the MPO has a policy of giving full consideration to non-motorized transportation facilities – this includes requiring sidewalks on both sides of newly constructed or widened streets, and designing all new roads with shoulders to have smooth, paved shoulders with optional rumble strips. The MPO also takes into account traffic volume, connectivity, cost, land acquisition needs, and safety. Projects identified in the plan include paved bike lanes, share the road/bike routes, sidewalks, and greenways or shared use paths. Limited or controlled access facilities are specifically excluded from bicycle and pedestrian accommodations. The plan also notes that US routes – Memorial Parkway and US 72 – carry large volumes of traffic, and that constructing bicycle and pedestrian facilities would be cost prohibitive. Portions of SR 53 are recommended for bike lanes and sidewalks.

Walk Bike River Region is the Bicycle and Pedestrian Plan for the Montgomery MPO. The plan assesses demand for walking and biking and identifies projects, programs, and policies to help create active places in the region. It aims to facilitate a culture of safety and respect among pedestrians and cyclists who are traveling for both transportation and recreation purposes. The plan includes an equity analysis that focuses on seniors, children, non-white populations, Hispanic communities, low-income households, households that are linguistically isolated, and those without access to a vehicle. The plan recommends a series of improvements, including new sidewalks, paved shoulders, advisory bike lanes, sidepaths, and shared use paths. Several of these fall along US 231, US 31, SR 14, and portions of other US and state routes in the region.

The **Shoals Area MPO Bicycle and Pedestrian Plan** outlines key recommendations and improvements to the regional bicycle and pedestrian network. The plan examines bicycle and pedestrian travel and usage patterns, land use and population density, and existing facilities. Recommendations include bicycle boulevards, shared use paths, bike lanes, sidepaths, yield roadways, and paved shoulders. Among US and state routes, this includes a shared use path along SR 133 north of Florence, bike lanes and paved shoulders along SR 17 and SR 20 in Florence, a sidepath and paved shoulders along US 43 between Florence and Killen, paved shoulders on SR 133 through Muscle Shoals, paved shoulders and a sidepath on SR 184 in Muscle Shoals, and bike lanes along SR 184 in Sheffield.

The **Tuscaloosa Area Bicycle and Pedestrian Plan** aims to advance the integration of bicycle and pedestrian travel into the existing transportation network. The plan recommends giving due consideration to bicycle and pedestrian needs in the planning and construction of new facilities; upgrading the network to meet standards established by the Americans with Disabilities (ADA) Act and filling gaps in facilities; adding non-motorized improvements to transportation reconstruction projects; and utilizing local government funds, federal and private grants, and other outside sources to construct standalone bicycle and pedestrian projects.

State Advocacy Organizations

Within Alabama, there are several advocacy organizations that promote bicycling and walking as viable modes of transportation for all users. The Alabama Bicycle Coalition (AlaBike) is a statewide bicycle advocacy organization with a mission to “promote cycling access, education, and safety and to advocate for safer road environments for all users.”²¹ AlaBike works with state and local officials to preserve and institutionalize bicycle-friendly policies in Alabama. The group has served as a stakeholder on a variety of statewide initiatives, including the **Statewide Transportation Plan**. AlaBike also promotes bicycle safety to the general public by providing resources on safe bicycling and motorist/bicyclist interaction, distributing a quarterly newsletter, and holding classes and other training opportunities throughout the year.

Closely aligned with statewide advocacy organizations are the many local and regional organizations promoting walking and bicycling. Some local and regional organizations focus almost exclusively on regular bicycle rides and special events, while others offer education and training opportunities and advocate for regional and local improvements. There are also several groups that advocate for improved conditions for pedestrians and people with disabilities. Taken together, these organizations illustrate the breadth of interest in bicycling and walking across the state.

Best Practices

National Advocacy Organizations

National advocacy organizations generally focus on improving bicycle and pedestrian conditions and also provide a useful platform for monitoring national best practices and state-by-state comparisons. A key takeaway from the various national reports and rankings produced each year is the importance of considering these modes collectively, historically, and contextually.

The League of American Bicyclists, for example, issues individual state report cards, called the “Bike Friendly State Ranking,” which assesses progress in each of the “5 E’s.”

- **Equity and Accessibility** – Ensuring access and mobility for everyone, especially historically underserved populations;
- **Engineering** – Infrastructure to support safe and convenient biking;
- **Education** – Building bike skills and confidence for people of all ages, as well as educating other road users;
- **Encouragement** – Opportunities and incentives to make biking viable and convenient;
- **Evaluation and Planning** – Laying the foundation for bike-friendly communities by creating bike networks, improving safety, and collecting data to improve the biking experience.

The Bike Friendly State Ranking categories each include a broad range of criteria that represent a series of strategies and tools for improving bicycle conditions in a state. While Alabama has historically been ranked in the bottom 10% of states over the eight-year history of the rankings, in recent years, Alabama has focused more resources in these areas. The report card gives Alabama a “B+” for traffic laws related to bicyclist safety, and practices for automated enforcement and preventing racial disparities in traffic law enforcement. Alabama ranked 44th out of 50 states in the most recent report cards.

The most comprehensive report documenting bicycling and walking conditions in the United States is the League of American Bicyclists’ **Bicycling and Walking in the United States Benchmarking Report** (2018), completed with support from the US Centers for Disease Control and Prevention (CDC), the American Association of Retired Persons (AARP), the FHWA, the National Association of City Transportation Officials (NACTO), the Institute of Transportation Engineers (ITE), and many other organizations. The *Benchmarking Report* documents the following trends to help state and local officials improve their communities’ bicycling and walking activities:

- **Levels of Bicycling and Walking** – Data about bicyclists, pedestrians and their trips versus people who use other transportation methods;
- **Health** – Rate of adults who participate in regular physical activity; rate of obesity; rate of diabetes; rate of hypertension; and rate of asthma;
- **Safety** – Bicycle and pedestrian fatality rates; percentage of traffic fatalities that are bicyclists and pedestrians;
- **Funding** – Per capita funding and percentage of federal dollars to biking and walking projects;
- **Administrative and Legislative Priorities** – State laws, policies, and commitments designed to protect bicyclists and pedestrians;
- **Administrative Capacity** – Staff and funding levels committed to bicycle and pedestrian programs;
- **Implementation** – Engineering, educational, and encouragement efforts to improve pedestrian and bicycling experiences and outcomes;

Importantly, in the four state ranking categories – bicycling and walking commuter levels, bicycle and pedestrian fatality rates, per capita spending on bicycle and pedestrian projects, and percent achieving recommended physical activity – southern states and more rural states generally fare poorly. The one exception is in per capita spending on bicycle and pedestrian projects. As southern states and more rural states have continued to grow in population, they have ramped up spending for bicycle and pedestrian projects. In response, many southern states currently rank in or near the top half of states for per capita spending on bicycle and pedestrian projects. It is also important to note that in the ranking of states by bicycling and walking commuter levels, the highest ranked southern state is West Virginia at 24th, which may reflect a number of variables including supporting policies, facilities, development patterns, and climate.³⁶



Source: Gresham Smith

³⁶https://bikeleague.org/sites/default/files/Benchmarking_Report-Sept_03_2019_Web.pdf

National Professional Associations

There are a number of national professional associations that have produced guidelines on bicycle and pedestrian policy and design. Several states, regions, and local governments utilize these reports to help guide implementation of bicycle and pedestrian facilities.

American Association of State Highway and Transportation Officials

The AASHTO **Guide for the Development of Bicycle Facilities** (2012) is a comprehensive guidebook on the planning, design, maintenance, and operation of bicycle facilities. The guidelines presented are intended to accommodate flexible design, sensitive to the context of different areas and resulting in facilities that meet the needs of both bicyclists and motorists. The document is an update to the original 1999 version of the guide, and includes several new topics, including guidance on how to select the optimal bikeway types, information on roadway diets, expanded bicycle lane guidance, expanded signal guidance, and additional information on shared use paths. Also included is more detailed information on buffered bicycle lanes, bicycle parking, the narrowing of travel lanes, and bicycle boulevards.

Among best practices highlighted in the document are:

- Selection of bicycle facility (bike lanes, shared use paths, etc.) based upon roadway volume and design speed;
- The use of Bicycle Level of Service as a measure of on-road bicyclist comfort level, based on the roadway's geometry and traffic conditions;
- Discouraging the use of bollards to separate bicycles from motor vehicles;
- The extension of "green time" at signals where bicyclists are present;
- The creation of bicycle boulevards, which allow all vehicles but include modifications to enhance bicycle safety and convenience, as well as traffic calming measures to improve pedestrian safety;
- Permitting the narrowing of roadway lanes, where appropriate, to create bicycle lanes;
- The use of buffered bicycle lanes; and
- The use of contrasting green colored or textured pavement through intersections and merge areas, where conflict points between bicycles and motor vehicles exist.

FHWA recognizes the information presented in the **Guide for the Development of Bicycle Facilities** as a sound, flexible approach for bicycle facility design.³⁷ AASHTO updated its complementary guidance on pedestrian facilities, **Guide for the Planning, Design, and Operation of Pedestrian Facilities**, in 2021. Best pedestrian planning practices include:

- Attention to the spatial needs of pedestrians, including the spatial bubble principle, or the ideal distance of unobstructed forward sight for pedestrian comfort;
- Placing a curb ramp for each pedestrian travel direction;
- The necessity for pedestrians in urban areas to have a crosswalk available within half a block at all times;
- The need for planning studies of all kinds to assess pedestrian needs; and
- Keeping street crossing distances as short as is practical.

National Association of City Transportation Officials

The National Association of City Transportation Officials (NACTO) **Urban Bikeway Design Guide** (2014, Second Edition) is intended to provide cities with innovative solutions for bicyclists who travel on urban roads. The guidelines presented in the document help create streets that are safe and comfortable for bicyclists. Included in the document are best practices for the design and operation of bicycle lanes, cycle tracks, and bicycle boulevards, as well as optimal intersection design, signalization, and signs and markings for bicycle use. The guidance in the document is flexible and adaptable to different urban areas and presents the treatments with three levels of guidance: required, recommended, and optimal.

Among best practices highlighted in the document are:

- Use of cycle tracks, parking lanes, and sidewalks; and
- Innovative intersection treatments, including:
 - Bike boxes, areas at the head of traffic lanes at signalized intersections that provide bicyclists a safe and highly visible way to wait at traffic signals;
 - Two-stage turn queue boxes for bicyclists to make left turns at signalized intersections with multiple lanes; and
 - Median refuge islands that allow bicycles to cross traffic traveling in only one direction at a time.

In August 2013, FHWA officially expressed its support for using the **Urban Bikeway Design Guide** and extended that support to NACTO's companion guidance contained in the **Urban Street Design Guide** (2013) in 2014.

³⁷https://nacto.org/wp-content/uploads/2015/04/AASHTO_Bicycle-Facilities-Guide_2012-toc.pdf

Updates are underway for a third edition of the **Urban Bikeway Design Guide**. NACTO plans to release the new guide in 2024.³⁸

Institute of Transportation Engineers

The Institute of Transportation Engineers (ITE) **Designing Walkable Urban Thoroughfares: A Context Sensitive Approach** (2010) presents solutions for advancing the walkability of major urban roads, and was simultaneously endorsed by FHWA with NACTO's **Urban Bikeway Design Guide** in 2013. The best practices emphasized in this report concentrate on context-sensitive solutions that meet the needs of users and stakeholders; are compatible with their setting, and preserve scenic, aesthetic, historic, and environmental resources; respect design objectives for safety, efficiency, multimodal mobility, capacity, and maintenance; and integrate community objectives and values relating to compatibility, livability, sense of place, urban design, cost, and environmental impacts. Among the best practices discussed in the report are:

- Integrating context-sensitive design policies in statewide strategic plans, long-range transportation plans, state transportation improvement programs, and system and corridor plans;
- Revising state design manuals to include context-sensitive solutions;
- Incorporating context-sensitive criteria into the alternatives screening process; and
- Training state-level staff and local agencies on context-sensitive applications.³⁹

State-Level Best Practices

The following section highlights best practices in bicycle/pedestrian policy and implementation among states neighboring Alabama. The best practices have been organized into five categories: Planning and Engineering, Legislation, and Outreach and Education.

Georgia

Planning and Engineering

- The Georgia Department of Transportation (GDOT) has developed two corresponding documents: the **Georgia Bicycle Safety Action Plan and the Georgia Pedestrian Safety Action Plan**. Both plans stem from the **Georgia Strategic Highway Safety Plan**. The Safety Action Plans identify current bicycling and pedestrian activity conditions, assess where there are issues and needs, and determine future programs and funding to address these needs. The objectives in the plan set standards for:
 - Reduction of bicycle and pedestrian crashes, fatalities, and injuries;
 - Data collection to assist decision-making; and
 - Funding for bicycle and pedestrian projects.^{40,41}
- The **2022-2024 Georgia Strategic Highway Safety Plan** gives a history of pedestrian and bicyclist fatalities and injuries, sets benchmarks for the reduction of these figures, and highlights strategies that can be taken to achieve these goals.⁴²
- From 2022 onward, Georgia has prioritized VRU by more than doubling the percentage of HSIP funding spent on VRU safety.⁴³

Legislation

- The State of Georgia has a safe passing law for bicyclists that requires motor vehicles to leave at least three feet of space between the motor vehicles and the bicyclist if passing a bicyclist.
- Bicyclists under 16 must wear a helmet.
- Bicycles in use at nighttime must have a white light on the front and a red light or reflector on the back.

Outreach and Education

- GDOT published the most recent version of **Georgia Bike Sense: A Guide for Bicyclists** in 2016.
- *See & Be Seen*, part of the larger *Drive Alert Arrive Alive* initiative, is GDOT's pedestrian safety and education campaign.
- Georgia has a *"Share the Road"* campaign, encouraging drivers to be aware of bicyclists on the roads and exercise caution when traveling near bicyclists. Motor vehicles may purchase special *"Share the Road"* license plates.

³⁸<https://nacto.org/publication/urban-bikeway-design-guide/>

³⁹https://deldot.gov/Business/drc/manuals/ite_walkable_thoroughfares.pdf

⁴⁰<https://www.dot.ga.gov/DriveSmart/Travel/BikePed/BikePedSAP.pdf>

⁴¹https://www.dot.ga.gov/DriveSmart/Travel/BikePed/5201%20ga%20bikes%20BSAP%20report_3.pdf

⁴²<https://www.gahighwaysafety.org/wp-content/uploads/2022/01/SHSP-2022-24.pdf>

⁴³https://www.dot.ga.gov/DriveSmart/Travel/BikePed/Vulnerable_Roadway_User_Safety_Assessment.pdf

Louisiana

Planning and Engineering

- Louisiana Department of Transportation and Development (LaDOTD) has developed a **Statewide Bicycle and Pedestrian Master Plan** to encourage a “complete and multi-modal transportation system for the State of Louisiana.”³¹
- LaDOTD released its **Statewide Bicycle and Pedestrian Master Plan** in 2009 and has since created a Bicycle Suitability Map and Bicycle Planning Tool to assist the development of biking facilities within the state.⁴⁴
- In 2022, the LaDOTD updated its award-winning Complete Streets policy. The updates include new research and information, such as:
 - **Pedestrian Network Screening List:** A new data-collection system to identify priority areas for pedestrian safety;
 - **Analyzing Human Mobility for Active Transportation:** Identifying priority locations for bike and pedestrian infrastructure using anonymous mobile device data to determine which locations have the most bicycle and pedestrian traffic; and
 - **Updated AASHTO Pedestrian Design Guide:** The recent release of the second edition of AASHTO’s **Guide for the Planning, Design, and Operation of Pedestrian Facilities.**⁴⁵

Legislation

- Louisiana has a safe passing law for bicyclists that requires motor vehicles to leave at least three feet of space when passing.
- Bicyclists under 12 must wear a helmet.
- In Louisiana, it is “unlawful to harass, taunt, or maliciously throw objects at or in the direction of any person riding a bicycle.”⁴⁶

Outreach and Education

- The Louisiana Highway Safety Commission (LHSC) honors National Bicycle Safety Month, Bike to Work Day, and Pedestrian Safety Month. The LHSC bicycle and pedestrian page shares statewide vulnerable road user crash statistics, as well as educational safety videos aimed at pedestrians, drivers, and children entering and exiting school buses.⁴⁷

Florida

Planning and Engineering

- In 2021, FDOT issued its updated **Florida Pedestrian and Bicycle Strategic Safety Plan**. Since the first edition of the plan was released in 2013, Florida has made numerous strides towards its goal of zero traffic fatalities, including:
 - Establishment of a Non-Motorized Traffic Monitoring Program (2018);
 - Creation of ConnectPed, a publicly available statewide database of bicycle and pedestrian needs; and
 - Introduction of District Safety Administrators.⁴⁸
- The FDOT website features a Bike Friendly Road Viewer, a web map of the state’s bike facilities meant to aid bicycle tourists in choosing routes.⁴⁹
- Florida’s **Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways**, also referred to as the Florida “Greenbook,” provides planning and design guidance for pedestrian and bicycle facilities and is based on the principle that transportation facilities, except limited access highways, should be designed and constructed under the assumption they will be used by pedestrians and cyclists.⁵⁰

Legislation

- Florida has a safe passing law for bicyclists that requires motor vehicles to leave at least three feet of space when passing.

Outreach and Education

- FDOT’s Alert Today Alive Tomorrow campaign focuses on biking education.
- Florida has a “*Share the Road*” campaign, encouraging drivers to be aware of bicyclists on the roads and exercise caution when traveling near bicyclists. Motor vehicles may purchase special “*Share the Road*” license plates.

⁴⁴<https://www.dotd.la.gov/about/office-of-engineering/traffic-engineering/complete-streets/bicyclists-and-pedestrians/>

⁴⁵<https://dotd.la.gov/media/dzhc0jgy/2022-complete-streets-annual-report.pdf>

⁴⁶<https://www.dotd.louisiana.gov/about/office-of-engineering/traffic-engineering/complete-streets/bicyclists-and-pedestrians/>

⁴⁷<https://www.lahighwaysafety.org/our-programs/bicycle-pedestrian-safety/>

⁴⁸https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/safety/2a-programs/bike-ped/2021_pbssp.pdf?sfvrsn=5737a595_2

⁴⁹<https://www.fdot.gov/roadway/bikeped/default.shtm>

⁵⁰<https://www.fdot.gov/roadway/FloridaGreenbook/FGB.shtm>

Mississippi

Planning and Engineering

- The Mississippi Department of Transportation (MDOT) has a **Pedestrians and Bicycle Policy** that states that “pedestrians and bicyclists shall be considered (where they are not prohibited, such as on the Interstate System) during the planning, design, construction, and maintenance of highway and street facilities.”⁵¹
- MDOT’s 2020 **Roadway Design Manual** includes guidelines for the inclusion of bike and pedestrian facilities where reasonable in new projects and reconstruction.⁵²

Legislation

- The State of Mississippi has a safe passing law for bicyclists that requires motor vehicles to leave at least three feet of space between the motor vehicles and the bicyclist if passing a bicyclist.
- Bicycles in use at nighttime must have a white light on the front and a red light or reflector on the back.⁵³

Outreach and Education

- *Bike Walk Mississippi* is a state government-led initiative to increase bicycle and pedestrian activity in the state.⁵⁴
- MDOT’s *Bicycle and Pedestrian Program* webpage features links to various national and statewide resources, including its **Mississippi Bicycle Guide**.⁵⁵
- Mississippi has a “*Share the Road*” campaign, encouraging drivers to be aware of bicyclists on the roads and exercise caution when traveling near bicyclists. Motor vehicles may purchase special “*Share the Road*” license plates.

⁵¹ <https://mdot.ms.gov/documents/Roadway%20Design/Standards/Manuals/Pedestrian%20and%20Bicycles%20Policy.pdf>

⁵² <https://mdot.ms.gov/documents/Roadway%20Design/Standards/Manuals/2020%20Roadway%20Design%20Manual.pdf>

⁵³ <https://mdot.ms.gov/documents/Enforcement/Regulations/MS%20Bicycle%20Laws.pdf>

⁵⁴ <https://www.bikewalkmississippi.org/>

⁵⁵ <https://mdot.ms.gov/portal/bikeped>

Tennessee

Planning and Engineering

- Tennessee Department of Transportation’s (TDOT) Statewide Active Transportation Plan, **Making Connections: Actions to Improve Walking, Bicycling, and Rolling in Tennessee**, was released in 2021. The document builds on efforts beginning in 2005 to improve non-motorized transportation within the state.⁵⁶
- The **Tennessee Vulnerable Road User Safety Assessment** covers numerous TDOT initiatives between 2018-2022 to improve VRU safety, including:
 - *Pedestrian Road Safety Initiative* (PRSI) to identify safety upgrades for 12 high-risk locations;
 - Multimodal Prioritization Tool to create a data-driven prioritization of Tennessee roadways;
 - Multimodal Access Grants (MMAG) awarded by TDOT to provide over \$127.8 million in funding for bike and pedestrian system improvement projects;
 - Four research projects; and
 - Other projects, such as updating the state bike route network, identifying all crosswalks in need of enhancement in the vicinity of schools, and identifying medians that may meet the criteria for pedestrian refuge islands.⁵⁷

Legislation

- The State of Tennessee has a safe passing law for bicyclists that requires motor vehicles to leave at least three feet of space between the motor vehicles and the bicyclist if passing a bicyclist.
- Bicyclists under 16 must wear a helmet.
- Bicycles in use at nighttime must have a white light on the front and a red light or reflector on the back.

Outreach and Education

- Tennessee has a “*Share the Road*” campaign, encouraging drivers to be aware of bicyclists on the roads and exercise caution when traveling near bicyclists. Motor vehicles may purchase special “*Share the Road*” license plates.

⁵⁶ https://www.tn.gov/content/dam/tn/tdot/multimodaltransportation/TDOT_SATP_Plan%20Document_Final_2021_07_23.pdf

⁵⁷ https://www.tn.gov/content/dam/tn/tdot/multimodaltransportation/office-of-multimodal-planning/TDOT%20VRU%20Safety%20Assessment%20Final%20Draft_11-13-2023_v2.pdf

Key Findings

Since the previous version of this plan, funding, innovation, and interest in bicycle and pedestrian systems have grown significantly. Key findings from a review of federal, state, and regional bicycle and pedestrian legislation, policies, plans, programs, and standards include:

- Nationally, the IIJA has massively increased transportation funding and innovation through new discretionary grant programs, safety requirements, and direct funding to states;
- Aside from measures in the IIJA, USDOT and FHWA have a broad range of policies, plans, and programs in place to support walking and bicycling, including the recently published **FHWA Guidance on Bicycle and Pedestrian Provisions of Federal Transportation Legislation** and **USDOT’s National Roadway Safety Strategy**;
- Walking and bicycling facilities and programs are eligible for funding under a number of other federal-aid highway programs and other federal agency programs, providing multiple opportunities to implement walking and bicycling improvements and improve safety, equity, and connectivity;

The **Alabama Vulnerable Road User Safety Assessment**, **Alabama Statewide Transportation Plan**, and **Alabama Strategic Highway Safety Plan**, as well as the previous version of this document, provide the policy foundation for bicycle and pedestrian transportation in the state, emphasizing improved safety, equity, and mobility through innovations and proven measures;

- Metropolitan Planning Organizations, Rural Planning Organizations, and cities throughout Alabama have developed bicycle and pedestrian plans to guide facility development in their areas of the state;
- Complementing the many public agencies working to provide bicycling and pedestrian facilities are dozens of advocacy organizations at the national, state, and local level;
- Nationally, transportation professional associations and advocacy organizations, such as the American Association of State Highway and Transportation Officials, the National Association of City Transportation Officials, the Institute of Transportation Engineers, the League of American Bicyclists, and the Alabama Bicycle Coalition, are playing an increasingly important role in documenting bicycle and pedestrian issues and developing new guidance for facilities and programs supported by FHWA; and
- Similar to Alabama, a number of peer states in the southeast have expanded their statewide bicycle and pedestrian programs over the past two decades. From plans and policies to safety outreach programs to innovative infrastructure solutions, the pace of change in bicycle and pedestrian planning continues to accelerate.

Table 04. Selected Best Practices - Regional Peer States

Categories	Best Practices	Alabama	Florida	Georgia	Louisiana	Mississippi	Tennessee
Plans & Policies	Bicycle or Active Transportation Plan	X	X	X	X		X
	Complete Streets Policies, Design Guides, and/or Legislation		X	X	X	X	X
Traffic Laws & Training	Safe Passing Law (3 feet or >)	X	X	X	X	X	X
	Laws Regulating Whether/How Bikes May be Ridden on Sidewalks		X	X	X	X	X
	Drivers License Test Questions About Bicyclists and/or Pedestrians	X	X		X		X
	“Share the Road” Campaign	X	X	X	X	X	X
	State Invests in Bicycle Safety Education Materials	X	X	X	X	X	X
Infrastructure	Protected Bike Lanes on State Roadways		X				X
	U.S. Bicycle Route Established in the State		X	X			X
	State DOT Support for Any Form of Bike/Pedestrian Traffic Monitoring		X		X	X	

Source: <https://data.bikeleague.org/show-your-data/state-data/>

Technical Memorandum B: Existing Conditions & Trends

2024



Alabama Statewide Bicycle and Pedestrian Plan



Prepared by Gresham Smith for the
Alabama Department of Transportation

ALDOT
Alabama Department of Transportation

**Gresham
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Introduction

The two main purposes of this memo are to analyze trends within Alabama's existing bicycle and pedestrian infrastructure while identifying potential locations for new facilities. Existing facilities are reviewed in terms of how well they serve the state's walking and cycling public from standpoints of safety, equity, and connectivity. Potential new facility locations are chosen on the basis of filling gaps in the existing network to improve multimodal travel in the state of Alabama.

Inventory of Existing Conditions

Bicycle Infrastructure

National Bicycle Routes

The United States Bicycle Route System (USBRS) was established in 1978 by the American Association of State Highway and Transportation Officials (AASHTO). Currently, there are more than 18,000 miles of routes in 34 states and the District of Columbia.¹ A National Corridor Plan (Figure 07) was established in 2009 identifying possible route connections between states. The Plan was updated in 2023. The corridors in the national plan are 50-mile wide corridors indicating where a route could be located. The completed Plan will create a 50,000-mile national network of bicycle routes. Over 19,000 miles are currently designated or established. Corridors considered "undeveloped" are those which have not yet been designated. The ultimate designation of a US Bicycle Route depends on each state's Department of Transportation with approval from AASHTO. There are four currently undeveloped corridors in the National Corridor Plan that pass through Alabama. They include the following:

- US Bicycle Route 23 corridor connects to the US Bicycle Route 84 corridor in the vicinity of Cullman and travels north to Ardmore where it crosses into Tennessee and extends to Kentucky;
- US Bicycle Route 25 corridor begins in the Mobile area and heads north through Mississippi, Tennessee, Kentucky, Ohio, and eventually into Canada;
- US Bicycle Route 84 corridor begins near Charleston, South Carolina, passes through northern Alabama, and extends to El Paso, Texas, at the junction with the US Bike Route 90 corridor; and
- US Bicycle Route 90 corridor begins along the northeast Florida coast, passes through Mobile, and extends west to San Diego and Los Angeles.²



Source: Gresham Smith

¹<https://www.adventurecycling.org/routes-and-maps/us-bicycle-route-system/>

²<https://www.adventurecycling.org/routes-and-maps/us-bicycle-route-system/national-corridor-plan/>

Figure 07. USBRS National Corridor Plan



Scenic Byways

Prior to the authorization of the 2012 federal transportation legislation, MAP-21, the National Scenic Byways Program (NSBP) made nationally-designated byways eligible for specific grants for planning, safety improvements, bicycle and pedestrian infrastructure, and marketing for the byways.

The Reviving America’s Scenic Byways Act of 2019 reinvigorated the program by allowing for new Scenic Byways designations.³ Most recently, Congress passed the Fiscal Year 2024 Transportation, Housing, and Urban Development (THUD) appropriations bill, which designated \$20 million for the NSBP. Alabama is home to four national scenic byways and seven state scenic byways, offering spectacular views of the state’s natural beauty and connecting people to a variety of historic and cultural sites. The national and state scenic byways are presented in Figure 08.

State Scenic Byways

- The 80-mile Appalachian Highlands Scenic Byway meanders through the mountains of northeast Alabama. It travels thorough portions of Cleburne, Calhoun, Cherokee, and DeKalb Counties, between I-59 at Fort Payne and I-20 near Heflin.
- The Barbour County Governors’ Trail recognizes eight Alabama governors who hailed from Barbour County. The trail connects visitors to 36 miles of historic, scenic, and recreational sites. The trail begins in Clio and ends at the Shorter Mansion in Eufaula.
- The Black Belt Nature and Heritage Trail marks remnants of the Old South and Civil Rights Movement that defined Alabama. This scenic byway provides access to the Tuskegee Institute, a variety of Civil Rights monuments and sites in the Montgomery area, and state parks rich in flora and fauna. This 210-mile trail begins in Cuba near the Mississippi state line and ends near Phenix City at the Georgia state line.

³https://www.fhwa.dot.gov/hep/scenic_byways/

- The Black Warrior River Scenic Byway is a 12-mile loop around the Black Warrior River in Tuscaloosa. The route is marked by natural scenic beauty and recreational amenities such as parks, boat landings, bicycle and pedestrian trails, and national historic sites.
- The Leeds Stagecoach Route marks the history of three distinct cultures in Alabama history, including early Christian Cherokees, European veterans from the Creek Indian War, and the first black settlers to the area from the 1880s. The 18-mile route extends from Lake Purdy, southeast of Birmingham, to Leeds near I-20.
- Lookout Mountain Parkway extends from Gadsden in northeast Alabama to the Georgia state line near Cloudland, Georgia. This scenic route offers visitors access to historic town squares, pioneer villages, rivers, waterfalls, and a variety of recreational activities. Lookout Mountain Parkway continues into Georgia and Tennessee for a total length of 93 miles.
- Tensaw Parkway treats visitors to the rich cultural, historic, and recreational experiences of the Mobile-Tensaw River Delta. Highlights include several boat launches, a river tour, camping sites, and access to the Alabama Coastal Birding Trail. This route extends from Stockton to Mobile.⁴

National Scenic Byways

- Alabama's Coastal Connection meanders from the Daphne and Fairhope areas southward to Gulf Shores, crossing Mobile Bay to Dauphin Island, and emerging near Bayou La Batre. The route gives visitors access to historic forts, state and national refuges, and several recreational activities and cultural sites.
- A portion of the three-state Natchez Trace Parkway crosses Alabama at its northwest corner. This trail was once traveled by buffalo and other wildlife, followed by Native Americans, traders, trappers, and missionaries. There are numerous trails, exhibits, campgrounds, water recreation areas, and picnic sites along the scenic byway.
- The Selma to Montgomery Historic Trail traces the history of the state's Civil Rights era. The trail follows the pathway of the historic marches from Selma taken in 1965 to protest voting restrictions for black citizens.
- The Talladega Scenic Drive takes visitors through the scenic Appalachian Mountains, reaching its highest peak on Cheaha Mountain, 2,407 feet above sea level. The trail provides access to the Talladega National Forest, Cheaha Wilderness and State Park, and Pinhoti Recreation Trail.⁵

Bicycle Routes in Adjacent States

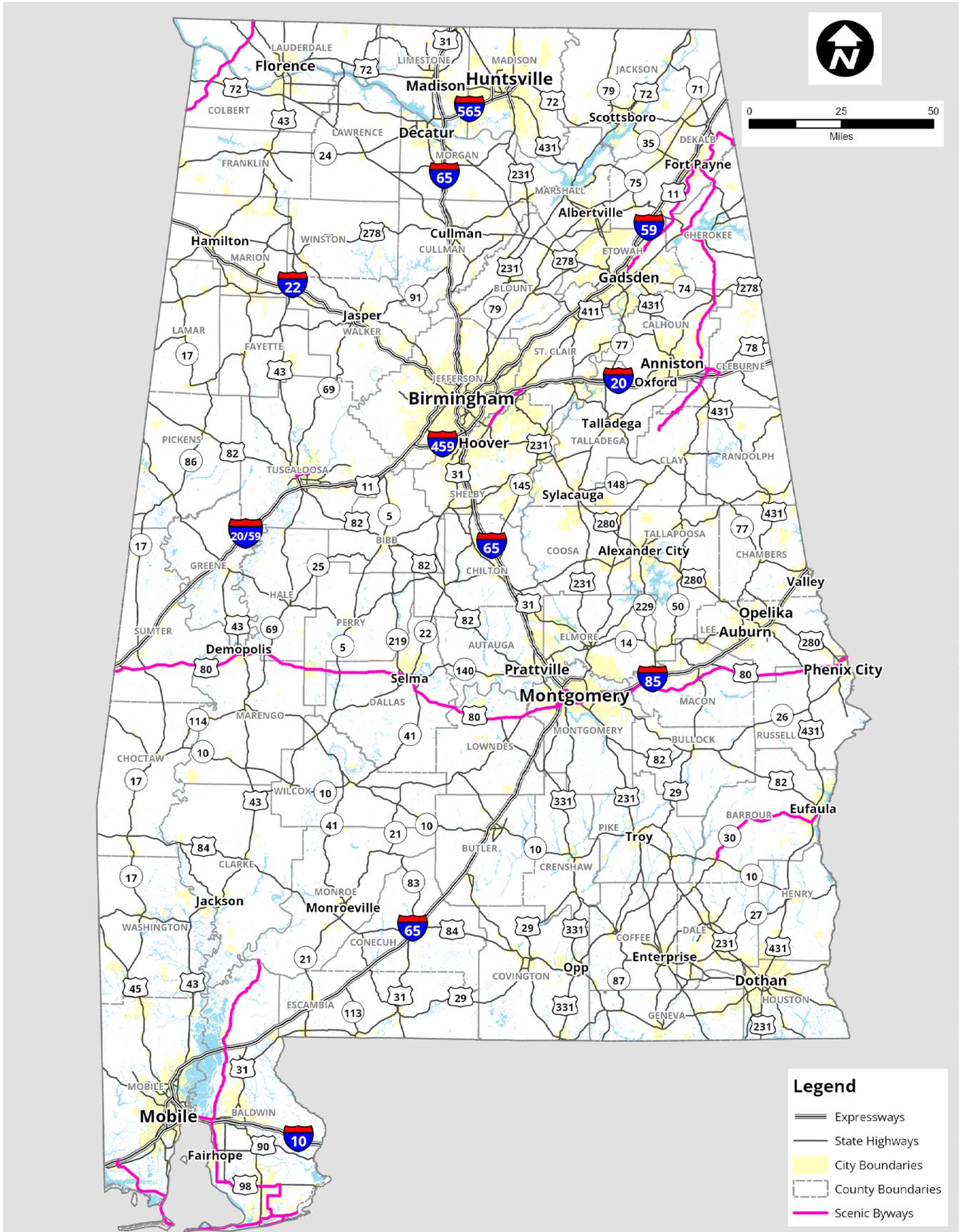
Alabama's neighboring states offer a wide array of bicycle connections for local, regional, and statewide travel. The following is an overview of designated routes in Florida, Georgia, Mississippi, and Tennessee, with potential connections to and from Alabama.

- Florida – For east-west statewide travel in northern Florida, the state has designated US Bicycle Route 90, which traverses US 90 to the Alabama state line near Seminole, Alabama. In addition, Florida has developed a web-based "Bicycle Friendly Road" map that identifies roads that contain a bike lane, shared path, or a shoulder width of four feet or greater. Connections to Florida bicycle routes are possible near Dothan (SR 53, US 231, SR 109), Samson (SR 153), Florala (SR 54), Wing (SR 137), Brewton (SR 41, CR 55), Flomaton (US 31), and Atmore (SR 21).
- Georgia – Georgia has an extensive network of statewide bicycle routes. Potential connections to Georgia's Chattahoochee Trace include routes in DeKalb County (SR 117), Cleburne County (SR 46), Randolph County (SR 48), Russell County (US 431), Barbour County (SR 30), and Henry County (SR 10).
- Mississippi – Mississippi primarily utilizes routes identified by the Adventure Cycling Association (ACA), the organization overseeing the planning of the US Bicycle Route system. Principal connections include ACA's Southern Tier (US Bicycle Route 90) in Mobile (US 90) and the Underground Railroad (US Bicycle Route 25) in Pickens County (SR 14), as well as the Natchez Trace in Colbert County.
- Tennessee – Similar to Georgia, Tennessee is developing an extensive state bicycle route network. In addition to the Natchez Trace in Lauderdale County, potential connections to the Tennessee bicycle route network include routes in northeast Lauderdale County (SR 207), Madison County (US 231/431), and Jackson County (SR 79). Tennessee has also designated US Bicycle Route 23, which would connect in Alabama at Ardmore.

⁴<https://alabamabyways.com/category/state-byways/>

⁵<https://alabamabyways.com/category/national-byways/>

Figure 08. Alabama Scenic Byways



Statewide Targets

Vision, Goals, Objectives, and Strategies

Based on guidance from the ALDOT Project Advisory Committee, ALDOT representatives, and input received from stakeholders, the following vision statement, goals, objectives, and action items were developed for the **Statewide Bicycle and Pedestrian Plan**.

Vision Statement

Alabama is a state where walking and bicycling are safe, comfortable, and convenient modes of transportation in communities across the state for people of all ages and abilities.

Goals, Objectives, and Strategies

Goal A: Improve safety for bicyclists and pedestrians of all ages and abilities.

1. Identify and address high priority safety locations and corridors.
 - Track, analyze, and report annual bicycle and pedestrian safety statistics.
 - Prioritize improvements and programs with the greatest potential to reduce bicycle and pedestrian crashes, injuries, and fatalities.
 - Evaluate maintenance policies and construction zone protocols to ensure safe walking and bicycling conditions.
2. Educate users on safe interactions among motorists, bicyclists, and pedestrians.
 - Develop educational materials and public information campaigns on safe walking, bicycling, and driving (e.g., “Share the Road” and pedestrian crossing laws).
 - Review and regularly update driver training and testing materials to include information on bicycle and pedestrian safety and laws.
3. Implement laws and regulations consistently.
 - Support statewide education and training programs on bicycle and pedestrian safety for state and local law enforcement officials.
 - Collaborate with state and local law enforcement officials on improving consistency in bicycle and pedestrian crash reporting.

Goal B: Develop complete and connected bicycle and pedestrian systems.

1. Improve bicycle and pedestrian networks where appropriate.
 - Develop and implement a bikeway designation program, including signage and interjurisdictional coordination.
 - Collaborate with national and local partners on implementing the US Bicycle Route System in Alabama, as appropriate.
 - Expand design guidelines for bicycle and pedestrian facilities based on national guidance.
2. Address bicycle and pedestrian needs, as appropriate, in phases of project development, routine maintenance, and system preservation.
 - Increase data collection and analysis of bicycle and pedestrian safety, traffic, and geometric conditions and needs.
 - Update project development policies and procedures to ensure that bicycle and pedestrian needs are evaluated in appropriate projects.
 - Integrate bicycle and pedestrian improvements as part of regular maintenance activities if appropriate.
3. Coordinate state improvements with local and regional goals and objectives.
 - Target bicycle and pedestrian improvements along state highway corridors that are identified in local and regional plans, or in consultation with local officials, if appropriate.
 - Partner with local jurisdictions on flexible design approaches for bicycle and pedestrian facilities.
 - Coordinate annual resurfacing, restoration, and rehabilitation (3R) and maintenance projects with local and regional bicycle and pedestrian plans.

Goal C: Support state, regional, and local economic development.

1. Link bicycle and pedestrian systems with other modes of transportation (such as air, rail, and transit).
 - Coordinate with regional and local transit agencies on bicycle and pedestrian improvements in transit corridors.
 - Coordinate with regional and local airport authorities and passenger rail operators on bicycle and pedestrian improvements to/from airports and rail stations.
 - Support secured and long-term bicycle parking at transit stops, airports, rail stations, and park and ride lots along state highways.

2. Address bicycle and pedestrian connectivity in major employment and activity centers.
 - Identify priority bicycle and pedestrian improvement areas in consultation with local officials and stakeholders.
 - Work with post-secondary educational institutions to improve bicycling and walking to and from campuses.

Goal D. Expand travel options for all transportation system users and protect the natural environment.

1. Expand and improve bicycle and pedestrian access to basic goods and services such as food, education, health care, parks, and transit.
 - Improve connectivity between bicycle and pedestrian facilities on state highways and local greenway and shared use path systems.
 - Increase access to walking and bicycling facilities for people unable to operate a motor vehicle and for households without personal vehicles.
2. Encourage walking and bicycling for shorter everyday trips (e.g., school, shopping, social).
 - Develop a state bicycle and pedestrian webpage that includes maps, updates on policies, programs, and projects, and links to additional resources.
 - Coordinate with state and local agencies and community organizations to promote the benefits of walking and bicycling.
 - Encourage local partners to utilize alternative local routes in higher speed, higher volume state highway corridors.
3. Preserve and protect the natural environment.
 - Expand and improve the bicycle and pedestrian networks to, from, and within natural and scenic areas, including national, state, regional, and local parks.
 - Coordinate state transportation planning and local land use planning to ensure walking and bicycling facilities are included in local plans and projects along state highways, if appropriate.

Taken together, the goals, objectives, and strategies underscore the importance of being able to reach a wide variety of destinations by walking and bicycling – whether as the sole means of transportation or in conjunction with driving or other transportation modes.



Source: Gresham Smith

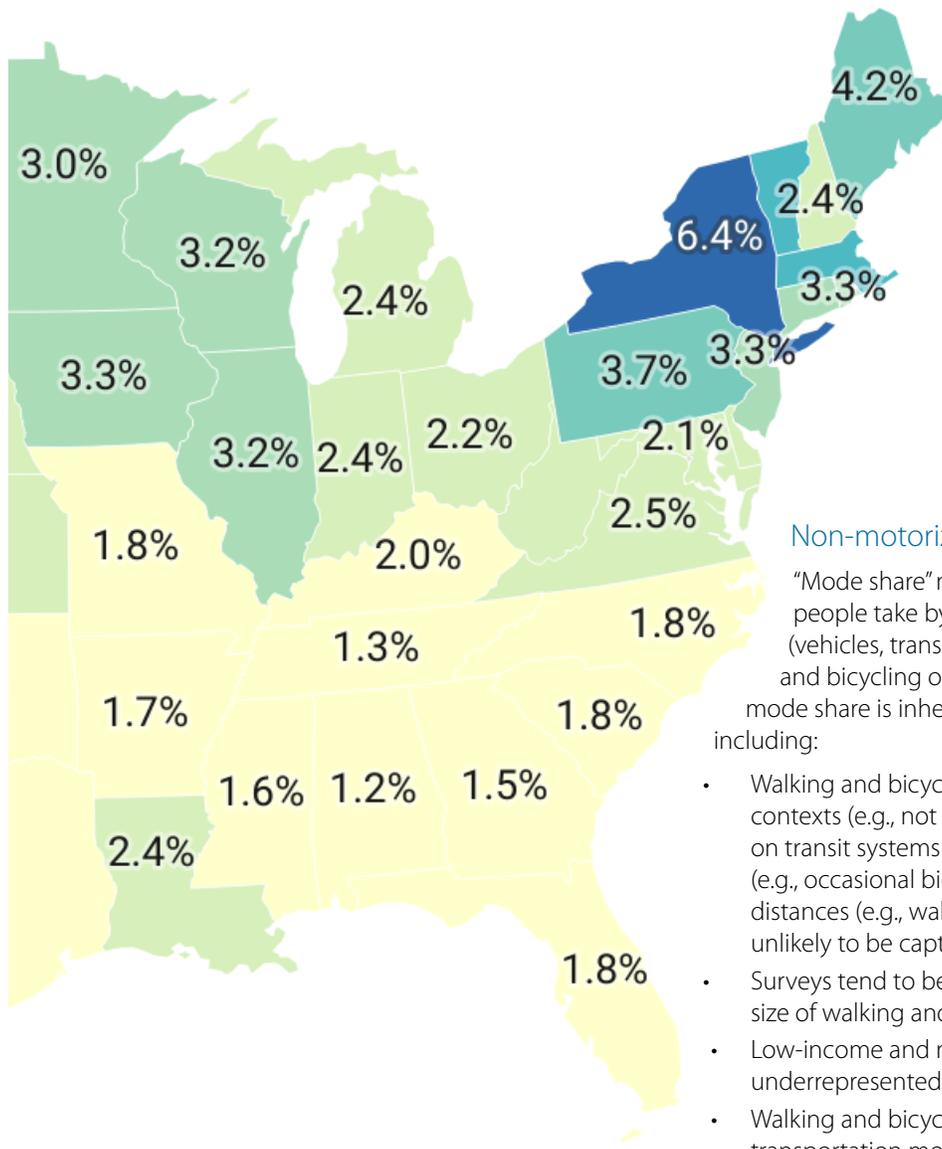


Figure 09. Percentage of Commuters who Bike or Walk to Work (The League of American Bicyclists’ Benchmarking Report)

Non-motorized Mode Share

“Mode share” measures the percentage of trips people take by different transportation modes (vehicles, transit, walking, and bicycling). For walking and bicycling or non-motorized modes, measuring mode share is inherently difficult for several reasons, including:

- Walking and bicycling occur in a wide range of contexts (e.g., not solely on roads as with vehicles or on transit systems as with transit riders), frequencies (e.g., occasional bicycling often goes unreported), and distances (e.g., walking and bicycling to transit are unlikely to be captured);
- Surveys tend to be unreliable due to the relatively small size of walking and bicycling respondents;
- Low-income and minority households tend to be underrepresented;
- Walking and bicycling are predominantly urban transportation modes; and
- Travel surveys are expensive.

The most recent National Household Travel Survey was completed in 2022 and reported walking and bicycling mode shares for total trips at 6.9% and 0.9%, respectively.⁶ To gain a better understanding of more recent activity and trends, the US Census Bureau provides journey-to-work or commuting data through the **American Community Survey** (ACS). While not a measure of total trip activity, bicycle and walking mode shares of commuter trips are one means of gauging bicycle and pedestrian activity in a state and one way of measuring activity relative to peer states – in this case, states in the southeast United States.

Trends

The following section highlights existing conditions and trends related to bicycling and pedestrian activity in Alabama.

⁶<https://nhts.ornl.gov/person-trips>

Bicycle Commuting Mode Share

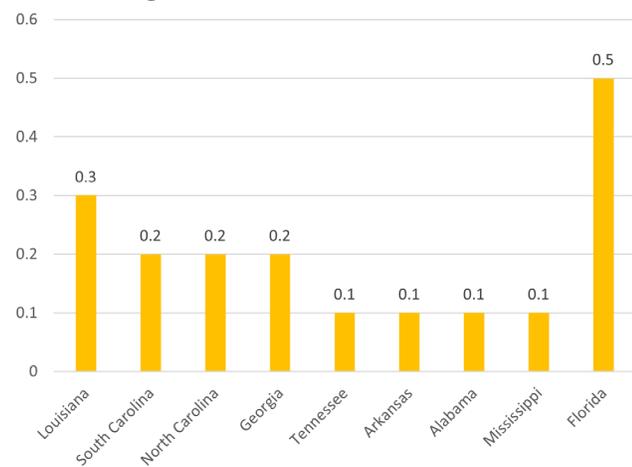
Bicycle commuting typically comprises less than 1% of all commuting trips each year in the United States, although those figures rise in mid-size and large cities and in college towns. Tuscaloosa, Alabama, for example, ranks among the top 20 bicycling commuting cities in the south with a bicycling to work mode share of 0.4% at the time of the 2022 ACS. Nationally, bicycle commutes have fallen slightly within the last decade from 0.62% in 2013 to 0.5% in 2022.⁷

Within the southeast US, statewide rates of bicycle commuting have been consistently lower than the national average (Figure 10). Virginia, West Virginia, and Louisiana have the highest bicycle commuting mode shares among southeastern states.

Pedestrian Commuting Mode Share

Walking is a more frequent means of commuting compared to bicycling in the United States. Workers who live close to their place of employment often walk to work because it is convenient and inexpensive, is a necessity (lack of vehicle), or provides physical fitness. Nationally, 2.4% of all workers walked to work in 2022. This rate has remained relatively steady in the last decade, as 2.8% of all workers commuted by walking in 2013.⁸ Similar to bicycling, statewide rates of pedestrian commutes are consistently lower in the southeast US than the national average. However, Alabama is one of five states that experienced an increase in pedestrian commuters between 2019 and 2022 (3% higher in 2022 than in 2019).⁹ Overall, though, Alabama ranks last in the US for pedestrian commuting and fourth-from-last in bicycling commuting levels.¹⁰

Figure 10. Percentage of Bicycle Commuters in Surrounding States



⁷https://data.census.gov/map?q=commute&tid=ACSST1Y2022.S0801&layer=VT_2022_040_00_PP_D1

⁸<https://data.census.gov/table/ACSST1Y2022.S0801?q=commute&g=010XX00US>

⁹<https://data.bikeleague.org/data/states-rates-of-active-commuting/#changes-in-active-commuter-mode-share>

¹⁰[https://data.census.gov/table/ACSDP1Y2022.DP03?q=DP03&g=010XX00US\\$0400000](https://data.census.gov/table/ACSDP1Y2022.DP03?q=DP03&g=010XX00US$0400000)

¹¹<https://www.dot.state.al.us/publications/Design/pdf/safetyPlanning/2022FactsBook.pdf>

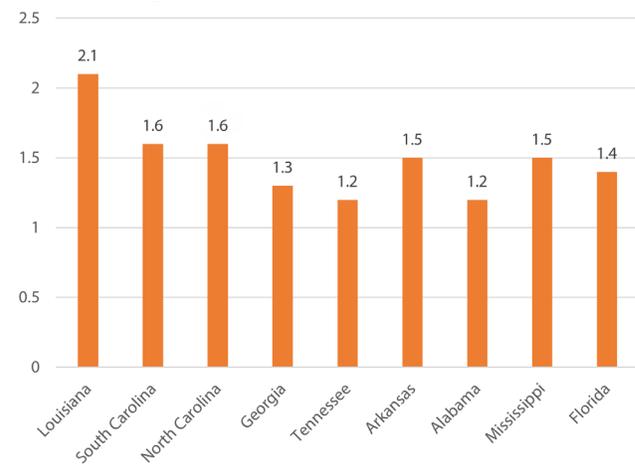
Bicycle and Pedestrian Safety

Bicycle and pedestrian safety is tied to a number of variables, including:

- Driving behavior of motorists around bicyclists and pedestrians;
- Bicyclist and pedestrian compliance with roadway laws, such as using proper hand signals and crossing at designated roadway crossings; and
- Design of roadway and bicycle/pedestrian facilities themselves, which can either help enhance or impede safety for bicyclists and pedestrians.

Traffic injuries and fatalities have been increased in Alabama over the last decade. According to ALDOT’s most recent **Crash Facts** booklet, published in 2022, crashes have increased nearly 14% since 2013, while fatalities have risen nearly 16%.¹¹ As the following sections illustrate, however, pedestrian and bicyclist safety data provide a mixed picture. While pedestrian fatality and injury rates have largely remained the same between 2019 and 2023, bicycle crashes have been decreasing over the past year since hitting a peak in 2022. In both cases, lower crash figures in 2020 coincide with the COVID-19 pandemic and likely reflect the general decline in total transportation activity.

Figure 11. Percentage of Pedestrian Commuters in Surrounding States



Bicycle Crashes

Overall, the total number of crashes involving bicyclists has decreased slightly from 2019 (240 crashes) to 2023 (230 crashes). Similarly, the number of bicycle crashes resulting in injuries has remained relatively steady, peaking in 2019 with 191 crashes. However, bicycle crashes have become more severe – the number of fatal bicycle crashes rose from six in 2019 to 11 in 2023, peaking at 12 fatal crashes in 2022. Likewise, bicycle crashes that resulted in non-incapacitating injuries have seen a downward trend, while the number of crashes resulting in serious injury has increased by 15%, from 40 (2019) to 46 (2023).

Figure 12. Alabama Bicycle Fatality and Injury Rates 2019-2023

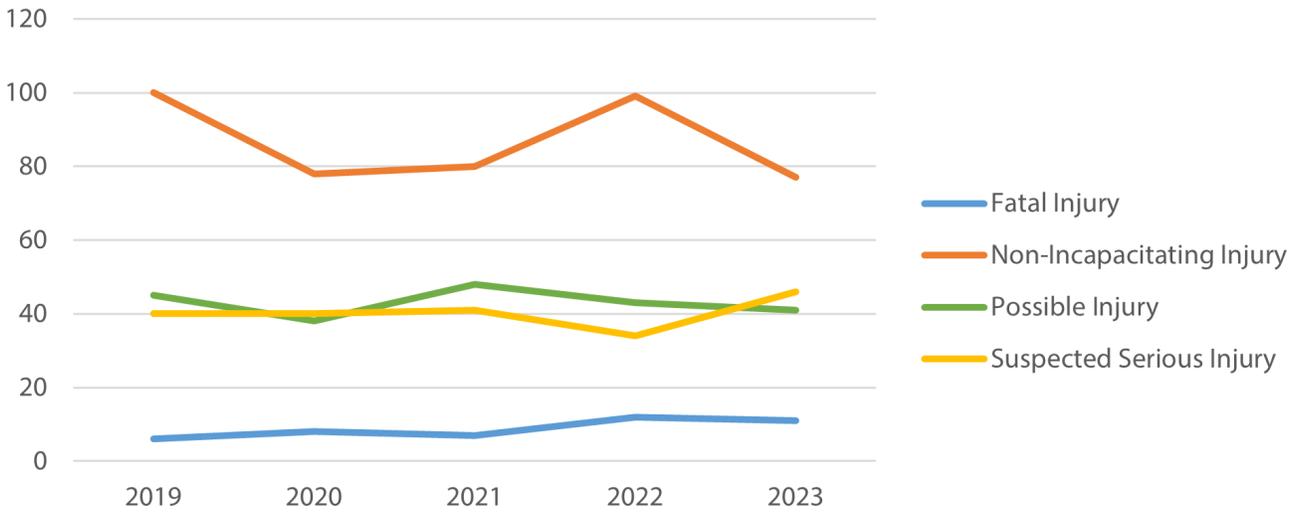
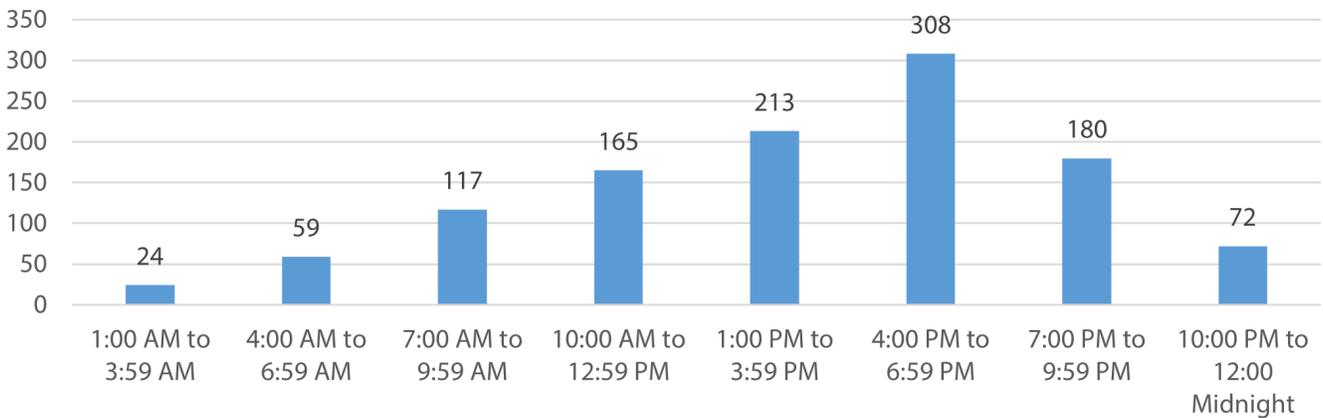


Figure 13. Bicyclist-Involved Crashes by Time of Day, Alabama 2019-2023



Pedestrian Safety

Overall, the total number of crashes involving pedestrians has decreased by 21% from 2019 to 2023. Similarly, the number of pedestrian crashes resulting in injuries has decreased by nearly 23%; both non-incapacitating injury crashes and possible injury crashes have seen decreases since 2019. However, the frequency of fatal pedestrian crashes has remained relatively steady – there were 115 fatal pedestrian crashes in 2019 and 112 in 2023, peaking at 125 in 2021.

Figure 14. Alabama Pedestrian Fatality and Injury Rates 2019-2023

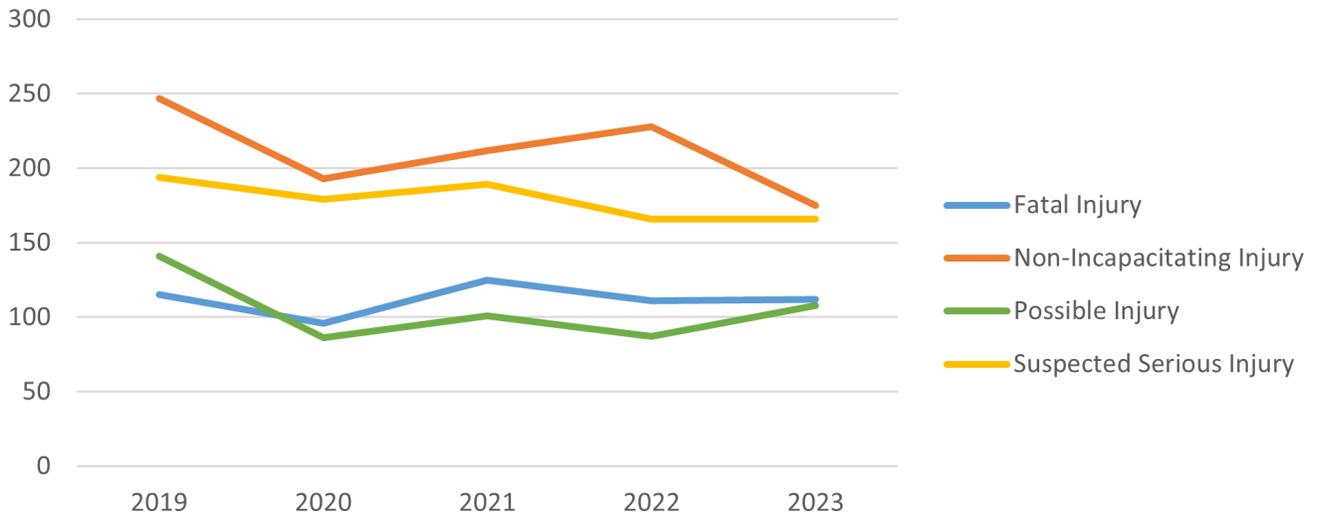
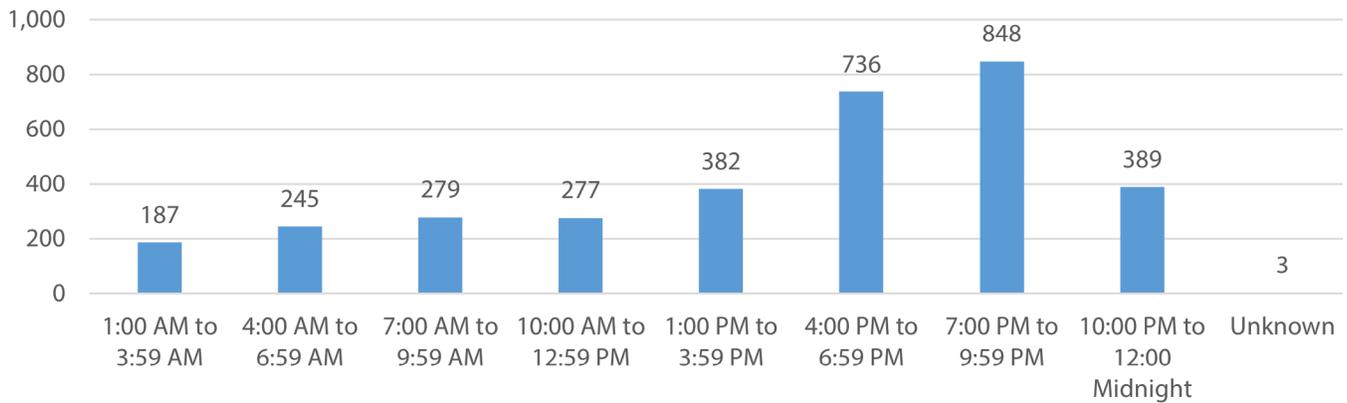


Figure 15. Pedestrian-Involved Crashes by Time of Day, Alabama 2019-2023



Accessibility & Equity

While walking and bicycling are considered leisure activities for many people, there are many others who rely on walking and bicycling for everyday transportation. This section highlights particular groups of people who may lack access and/or are unable to drive a motor vehicle.

Student Population

There were 738,944 children, from pre-kindergarten to grade 12, enrolled in public schools in Alabama at the time of the 2022 ACS.¹² Over the past ten years, numerous states and communities have worked to improve transportation options to and from schools through the federal Safe Routes to School (SRTS) program. While SRTS is no longer a standalone federally funded program, school-oriented bicycle and pedestrian projects are still eligible under the broader umbrella of the federal Surface Transportation Program (STP) set-aside program.

College and university students are another important segment of the population that relies extensively on walking and bicycling as modes of transportation. Campuses, particularly those of larger colleges and universities, often have extensive bicycle and sidewalk facilities to accommodate the movement of students. In areas around these campuses, there may be opportunities to enhance bicycle and pedestrian facilities on adjacent routes, providing better connections between campuses and the surrounding community. There are over 80 college and university campuses across Alabama with approximately 295,000 students enrolled.¹³

Persons 65 Years and Older

In 2022, approximately 18% of Alabama residents were age 65 and older.¹⁴ As America's "baby boomer" population ages, there is an increasing need to provide a variety of transportation options for older adults. Older adults often cannot or should not drive vehicles due to failing eyesight, slower response times, and other health factors that make driving unsafe. Other older adults may not have a personal vehicle or simply prefer not to drive. Communities that are walkable and have access to transit services – providing alternate ways to reach shopping and dining destinations, community centers, hospitals, and medical services – are critical to the physical and mental well-being of older citizens.

Households Below Poverty Level

Transportation is the second-highest expenditure for households in the United States, exceeded only by housing costs, and personal vehicles are a major expense for low-income households.¹⁵ In addition to the cost of purchasing a vehicle, there are ongoing operational costs for gasoline, maintenance, taxes, and insurance. Many low-income households do not own vehicles and must rely on walking, bicycling, carpooling, or transit to travel.

Figure 16 displays the percentage of households at or below poverty level by block group. There are high concentrations of poverty (30% or greater of households) in Sumter, Greene, Perry, Dallas, and Wilcox Counties in west-central Alabama, as well as Macon, Bullock, and Barbour Counties to the east.¹⁶

Table 05. Key Statewide Demographics

Category	Estimate
Enrolled in school (K-12)	738,944
College and university students	295,000
Persons 65 years and older	913,013
Households below poverty level	800,395
Households with no vehicles	108,000

Households with No Vehicles

Households that lack access to a vehicle are completely reliant upon other modes of transportation, such as carpooling, public transit, bicycling, or walking. In Alabama, nearly 108,000, or 5.6% of households, do not have access to a vehicle.¹⁷ There are six metropolitan areas in Alabama where the percentage of households without a vehicle equals or exceeds the statewide average.¹⁸

Table 06. Zero-Car Households

Metropolitan Area	Total Households	No Vehicle Available	% Households with No Vehicle
Anniston-Oxford	44,693	2,490	5.6
Columbus	124,701	11,200	9.0
Dothan	58,620	3,795	6.5
Mobile	165,111	11,001	6.7
Montgomery	148,214	8,882	6.0
Tuscaloosa	100,101	6,371	6.4

¹² <https://data.census.gov/table/ACSST1Y2022.S1401?q=school%20enrollment%20by%20state&g=040XX00US01&moe=false>

¹³ <https://nces.ed.gov/>

¹⁴ <https://data.census.gov/table/ACSST1Y2022.S0101?q=alabama%20population%20by%20age&g=040XX00US01&moe=false>

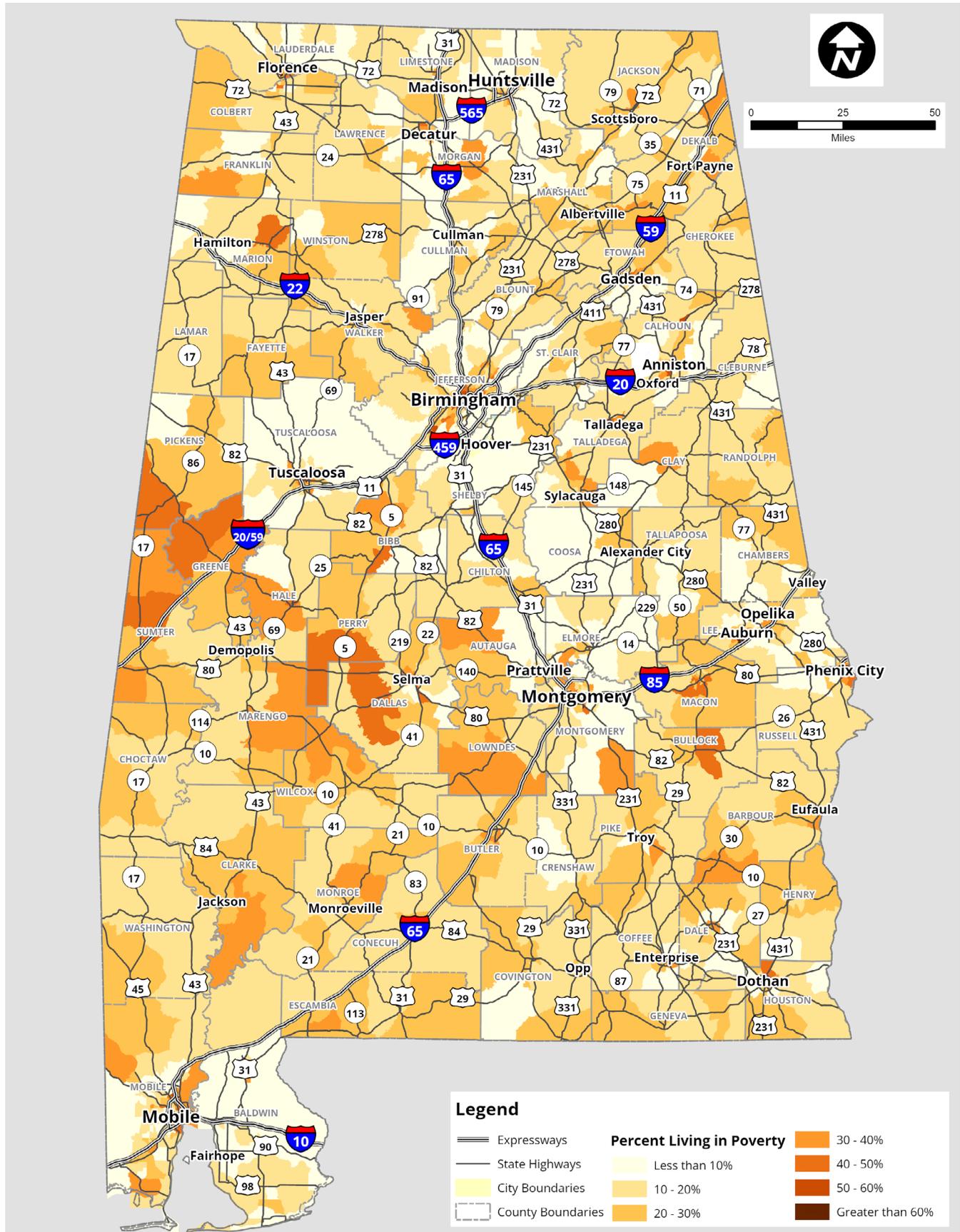
¹⁵ <https://www.bls.gov/opub/reports/consumer-expenditures/2022/home.htm>

¹⁶ <https://encyclopediaofalabama.org/media/alabama-poverty-rates-by-county/>

¹⁷ <https://data.census.gov/table/ACSDP5Y2022.DP04?g=040XX00US01&tid=ACSDP5Y2022.DP04>

¹⁸ https://data.census.gov/table/ACSDP5Y2022.DP04?g=040XX00US01_310XX00US11500,12220,13820,17980,19300,19460,20020,22520,23460,26620,33660,33860,46220&moe=false

Figure 16. Percentage of Population Living in Poverty



Economic Development

For many states and local communities, new investments in walking and bicycling facilities are translating into economic development benefits. The Bureau of Economic Analysis (BEA) estimated that bicycling contributed \$3.28 billion to the economy in 2021.¹³ Accordingly, numerous cities and states have undertaken economic impact studies to measure the direct, indirect, and fiscal benefits of bicycle related travel. Some of the key findings include:

- **Texas** – A 2018 study found that bicycling in Texas supported approximately 36,000 jobs and generated approximately \$153 million in tax dollars;¹⁹
- **Portland, Oregon** – Adding bike-friendly infrastructure tends to increase jobs and spending, according to a 2020 report; and²⁰
- **Wisconsin** – A 2019 study found that the state's bicyclists spent \$1.42 billion annually on cycling.²¹

In Alabama, all travelers spent an estimated \$23.5 billion in 2023, representing 8.3% of the state's gross domestic product and generating nearly \$1.4 billion in state and local tax revenues.²² Notably, the 2021 SCORP found increased participation rates for walking and biking in Alabama versus the 2012 version of the document.

The 2021 SCORP update reported the latest results from the Alabama Outdoor Recreation Resident Participation Survey. The survey captures whether and how Alabamians spend their time outdoors. Overall, 65.6% of Alabama households surveyed enjoyed outdoor recreation time over the past year. Of the 3,294 residents represented in the survey, the greatest number of people (45.3%) spent their outdoor recreation time walking, followed by jogging/running at 21.8%. Bicycling on a paved street or path was the seventh-most popular outdoor activity with a 14.7% participation rate. In addition to high participation levels, walking and biking also represent some of the highest rates of unmet demand for local facilities. Additional local paved walking/jogging paths had a 23.8% request rate, the highest of any facility type. Paved bike trails ranked sixth with a 10.0% request rate.



Source: AlabamaByways.org

¹⁹ https://library.ctr.utexas.edu/hostedpdfs/txdot/txdot-spr-420_218-2019.pdf

²⁰ <https://www.peopleforbikes.org/reports/the-national-study-of-the-economic-impact-of-street>

²¹ <https://wisconsin.gov/Documents/projects/multimodal/bike/econ-impact.pdf>

²² <https://tourism.alabama.gov/app/uploads/2023-Economic-Impact-Report.pdf>

Natural Environment

Air Quality

The transportation sector in the United States contributes an estimated 28.5% of total US greenhouse gas emissions, second only to industry.²³ Even as fuel becomes cleaner and vehicles become more energy efficient, vehicle usage continues to rise as urbanized areas spread and people are required to travel longer distances between home and other destinations. Between 2013 and 2022, the number of vehicle miles traveled on Alabama roadways increased by over 10%, from approximately 65 million vehicle miles to over 71 million vehicle miles.

Major pollutants from motor vehicles include particulate matter (PM_{2.5}), volatile organic compounds, nitrogen oxides (NO_x), carbon monoxide (CO), and sulfur dioxide (SO₂). Ozone is also a source of air pollution. When emissions from motor vehicles interact with heat and sunlight in the atmosphere, ozone levels may increase to unsafe levels, reducing visibility and contributing to poor air quality. The Alabama Department of Environmental Management monitors pollutant levels throughout the state in compliance with guidelines from the US Environmental Protection Agency. Table 03 presents the specific air pollutants that are monitored in Alabama's metropolitan areas.²⁴

Even modest increases in walking and bicycling for transportation can have a positive impact upon air quality. According to the National Household Travel Survey, 40% of transportation trips are within two miles of home, and 5% of the working population in the US has a commute of five miles or less. Since most of the air pollutants monitored under the Clean Air Act are emitted into the atmosphere within a few minutes of a vehicle start,²⁶ short distance trips completed by non-polluting forms of transportation can deliver meaningful reductions in emissions.

Table 07. Monitored Air Pollutants by Metropolitan Statistical Area

Metropolitan Statistical Area	Pollutant(s) Monitored
Birmingham-Hoover	Ozone, SO ₂
Columbus	Ozone, PM _{2.5}
Daphne-Fairhope-Foley	Ozone, PM _{2.5}
Decatur	Ozone
Gadsden	Ozone, PM _{2.5}
Mobile	Ozone, PM _{2.5} , PM ₁₀
Montgomery	Ozone, PM _{2.5} , PM ₁₀
Tuscaloosa	Ozone, PM _{2.5}



Source: ALDOT

²³ https://www.epa.gov/system/files/documents/2024-04/us-ghg-inventory-2024-main-text_04-18-2024.pdf

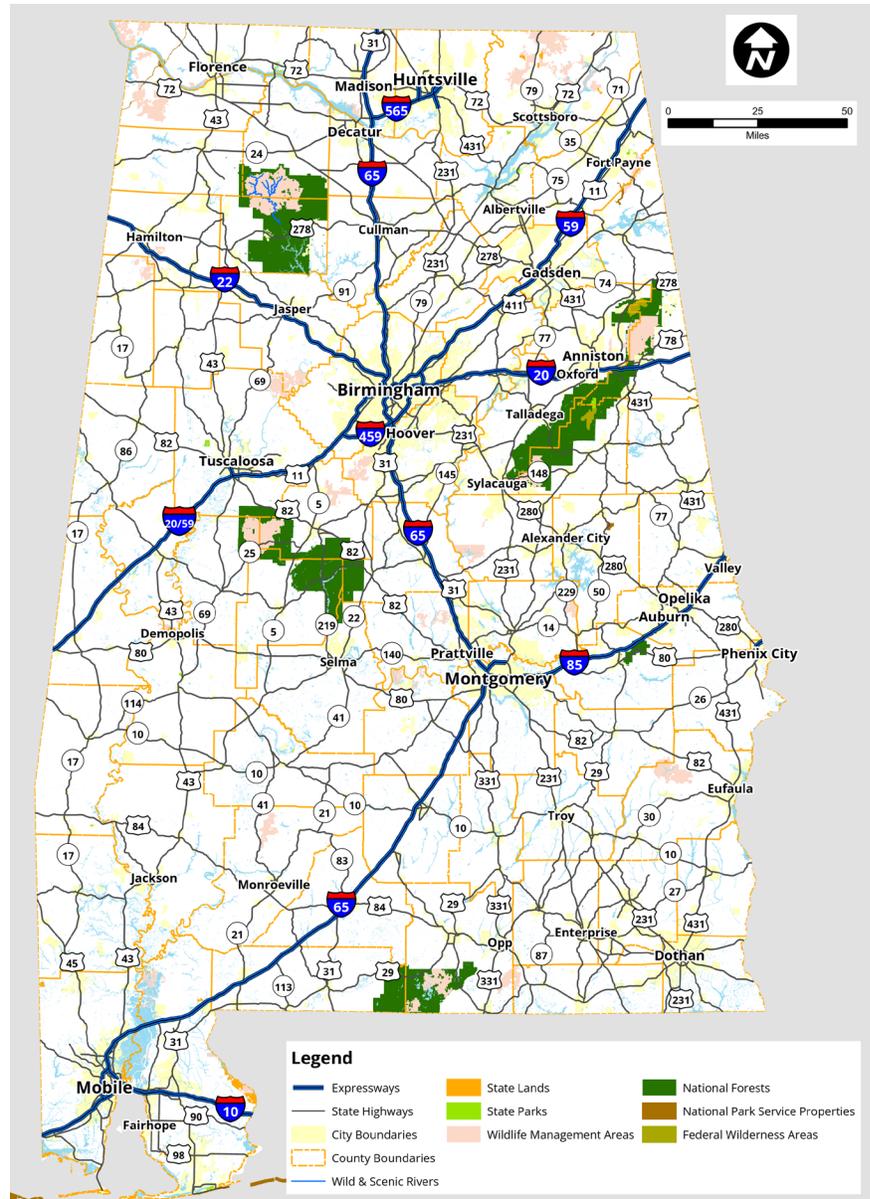
²⁴ <https://adem.alabama.gov/programs/air/airquality/2023AmbientAirPlan.pdf>

Natural Areas

Alabama has a wealth of natural areas for recreation and conservation. There are 21 state parks, three state forests, 11 national wildlife refuges, and five recreation areas managed by the National Park Service. Many of these areas have been acquired through Alabama's Forever Wild Program, established in 1992 to purchase public lands for conservation and recreation. In addition, Alabama is home to four national forests (Bankhead, Conecuh, Talladega, and Tuskegee National Forests), three national wilderness areas, and 46 Forever Wild State Land Trust tracts. There are also hundreds of county and city parks and recreational areas throughout the state. Within these parks and recreational areas are miles of hiking trails, horseback trails, mountain biking paths, boardwalks, and greenways. A map of state-owned and national conservation and recreation areas are presented in Figure 17.

The Alabama Department of Conservation and Natural Resources – Alabama State Parks Division and the National Park Service are responsible for the management and improvement of state and national parks, refuges, and recreational areas. Opportunities exist for these agencies to coordinate with ALDOT and local governments to determine potential bicycle and walking path linkages between state road facilities and natural and recreational areas.

Figure 17. Natural Areas



Source: AlabamaByways.org

Demand Analysis

There are many factors that influence a person's decision to walk or bicycle. Accordingly, evaluating potential pedestrian and bicycle demand in Alabama considers a range of metrics that reflect different age groups, abilities, trip purposes, and possible destinations. As with the subsequent roadway suitability assessment, the demand analyses are intended to serve as tools to help frame the discussion on walking and bicycling networks and potential system improvements. Public input and technical feedback from state, regional, and local stakeholders will help refine any final recommendations.

Pedestrian Demand

The 2022 National Household Travel Survey revealed that the average walking commute is 1.28 miles.²⁵ On a statewide basis, the greatest demand for pedestrian facilities lies within towns and cities, where destinations such as schools, parks, retail establishments, workplaces, and homes are in closer proximity to one another.

In order to create a pedestrian demand analysis map, overlap of proximities to important destinations were measured via geospatial analysis. Specific factors considered include population density, employment density, percentage of households at or below poverty level, access to transit, proximity to K-12 schools, proximity to colleges and universities, and a safety analysis of pedestrian-involved crashes. Data sources for all of the demand analyses are documented in Appendix A.

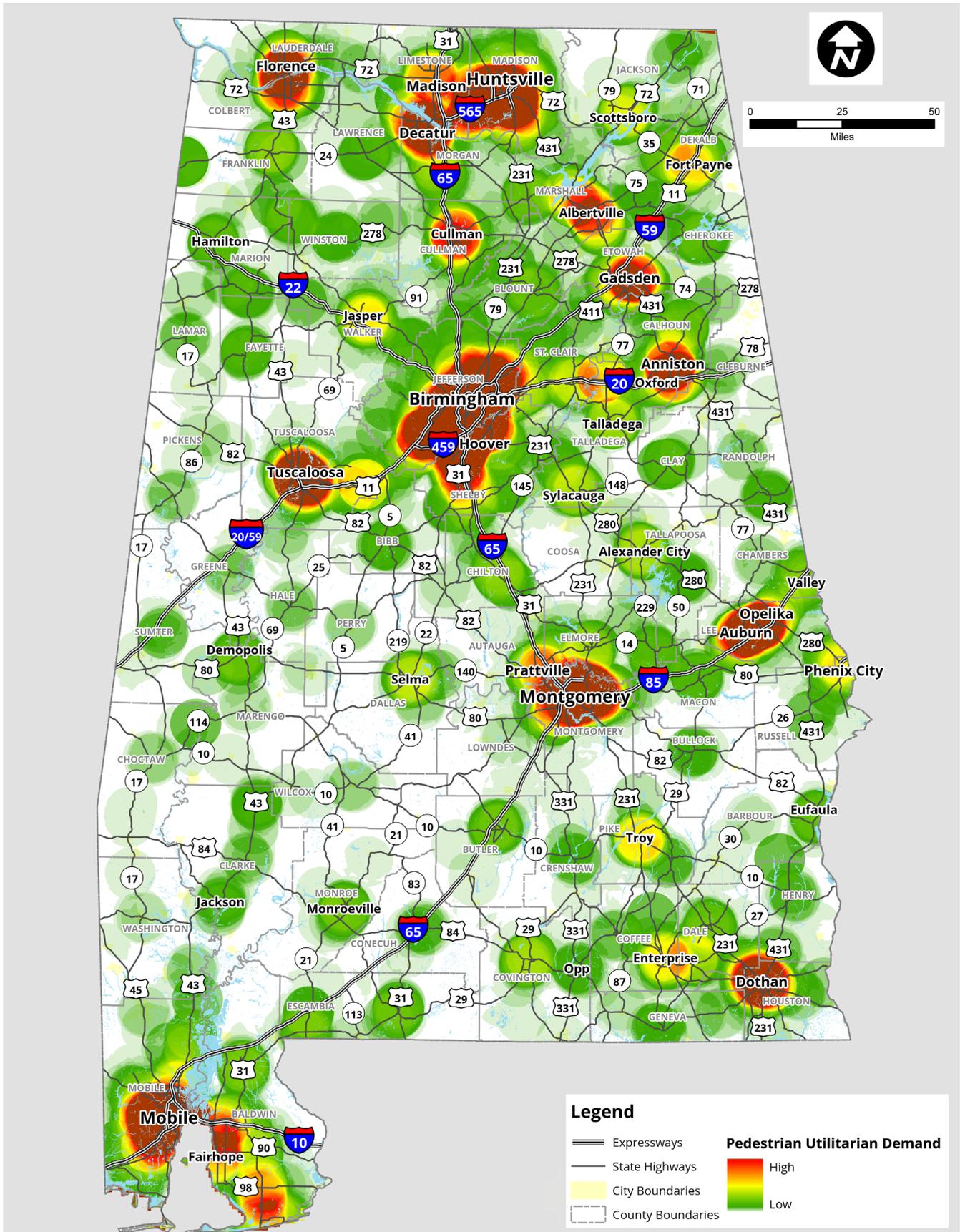
The highest demand for pedestrian trips lies within existing urbanized areas in Alabama, where there are high concentrations of population and employment as well as a high concentration of schools. Pedestrian demand is also seen in less urbanized cities with colleges and universities, such as the City of Auburn, and in low-income areas in southwest Alabama.

²⁵ https://nhts.ornl.gov/assets/2022/pub/2022_NHTS_Summary_Travel_Trends.pdf



Source: Gresham Smith

Figure 18. Utilitarian Pedestrian Demand



Bicycle Demand

Utilitarian Trips

Within cities, people are increasingly using bicycles to travel for daily and weekly utilitarian trips related to work, school, and errands. The demand for bicycle facilities depends heavily upon the proximity of destinations to one another, as well as how comfortable cyclists feel riding along roads. The bicycle demand map has been developed through geospatial analysis. Specific factors considered include population density; employment density; percentage of households at or below poverty level; bicycle-involved crash safety analysis; and proximity to important destinations, including transit services, K-12 schools, and colleges or universities.

Similar to pedestrian demand, the highest demand for utilitarian bicycle trips lies in urbanized areas, in less urbanized areas with colleges and universities, and low-income areas. Because the comfortable range of bicycle travel is longer than that of pedestrian trips, the utilitarian bicycle demand map is similar to the pedestrian demand, but displays these longer range trips. Figure 01 illustrates the findings.

Tourism and Leisure Trips

In addition to bicycling for work, school, and errands, there are also many people who choose to bike in tourism areas and for leisure. As discussed earlier, tourism and leisure bicycle trips are becoming increasingly important to local, regional, and statewide economies. In order to assess statewide demand for tourism and leisure bicycling, the geospatial analysis considered proximity to destinations that would generate these types of trips. Destinations included wild and scenic rivers; scenic byways; state parks and state lands; national forests, national parks, and other federal wilderness areas; wildlife management areas (WMAs), and state historic sites.

Figure 20 shows that there is broad demand for leisure and tourism-based bicycle travel. The highest demand exists along the several recreational trails, scenic byways, and US bicycle corridors that cross the state, and the surrounding state and national natural areas. The significant demand for leisure and tourism-based bicycling statewide is a testament to the natural beauty and wide range of bicycling opportunities in Alabama, and points to the potential for these resources to spur bicycling-based economic development opportunities.



Source: ALDOT

Figure 19. Bicycle Utilitarian Demand

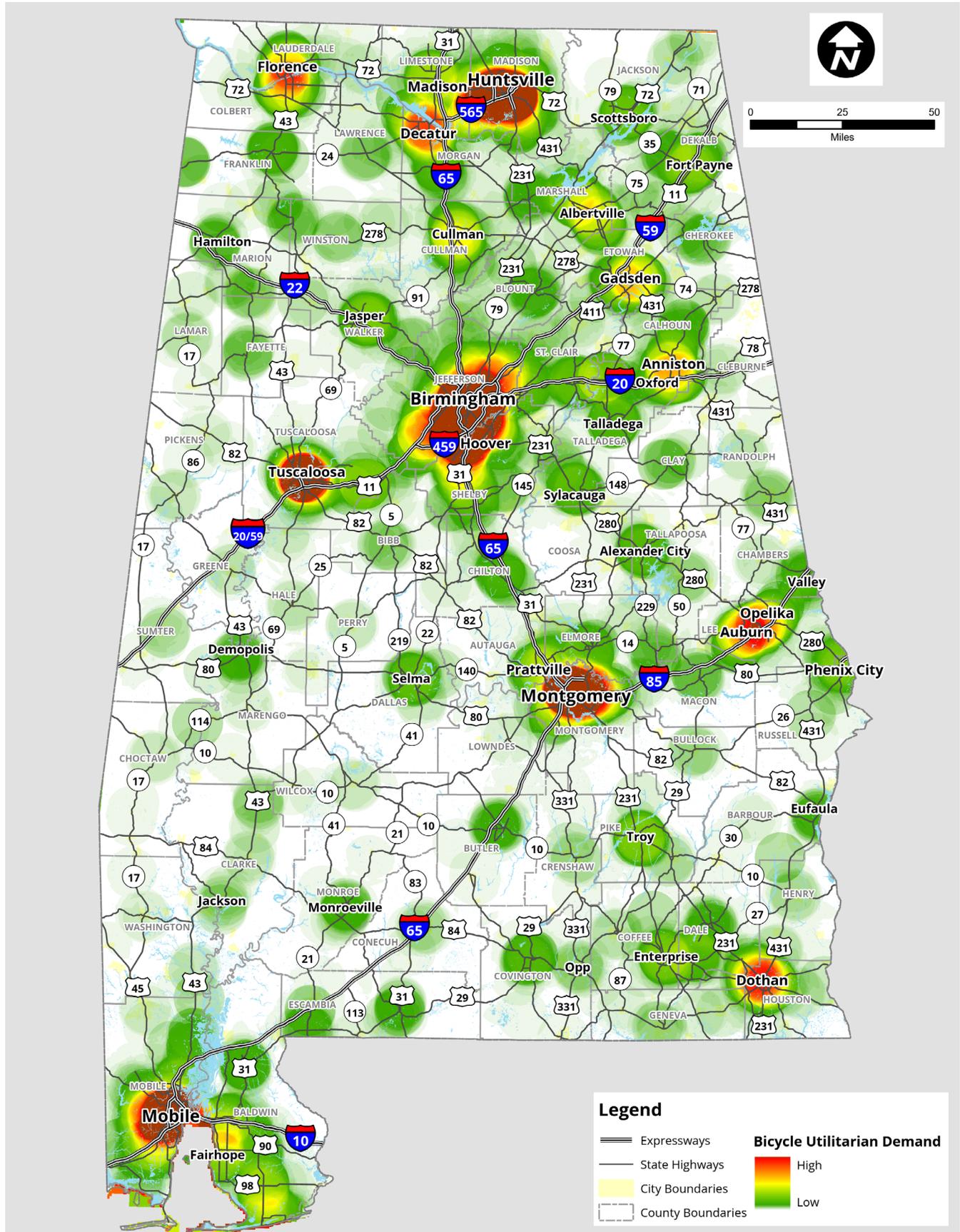
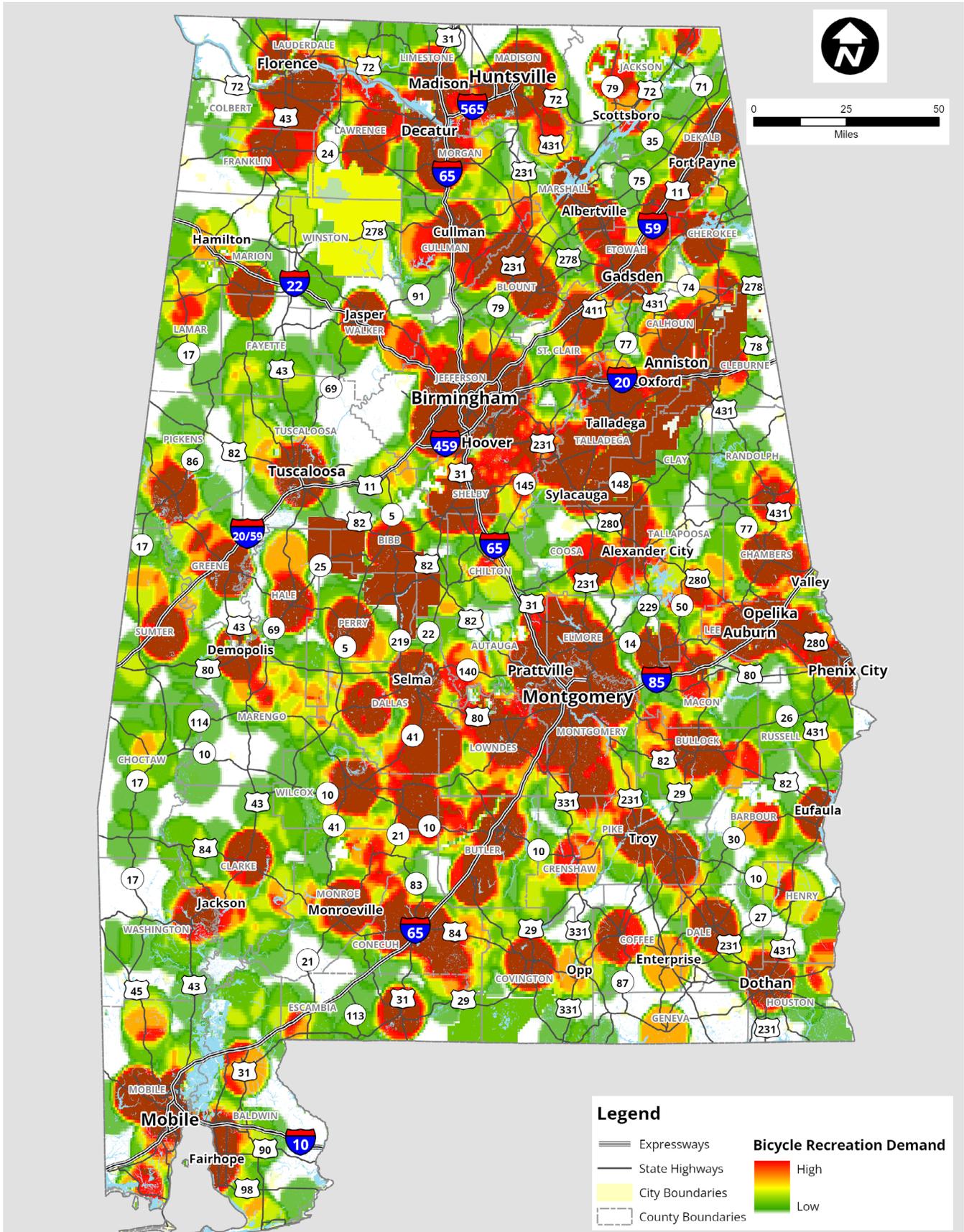


Figure 20. Tourism and Leisure Bicycle Trips



Suitability Analysis

Bicycle Suitability

In addition to an assessment of bicycle demand, the current suitability of federal and state roads for bicycling was evaluated. The bicycle suitability analysis performed is based on current best practices and the availability of applicable data. Such things as the sensitivity of specific factors in the HCM Bike LOS formula, quality of GIS data available from ALDOT, and cyclist experience were considered in the development of this analysis. State and US routes (excluding interstate highways) were assessed for bicycle suitability. Due to differing traffic patterns in rural and urban areas, separate analyses were conducted for urban areas (within Census-designated urbanized areas) and rural areas. Each of the four factors described in Tables 07 and 08 were weighted equally in each analysis. The criteria for each factor were scored based on an evaluation scale of 0 to 10, where '10' represents the best suitability for bicycling and '0' represents the poorest suitability for bicycling. Figure 21 illustrates the findings. Data sources for the suitability analysis are documented in Appendix A.

Based on the criteria established, Figure 21 shows that the roadways that are less suitable for cycling tend to be near urbanized areas, where there are higher volumes of traffic, a greater prevalence of heavy truck vehicles, and, typically, a greater number of roadway lanes. In more rural areas, the lower suitability ratings can be attributed to heavy trucks that are transporting goods from freight generators such as the Port of Mobile, timberland logging areas, or other manufacturing or distribution areas.

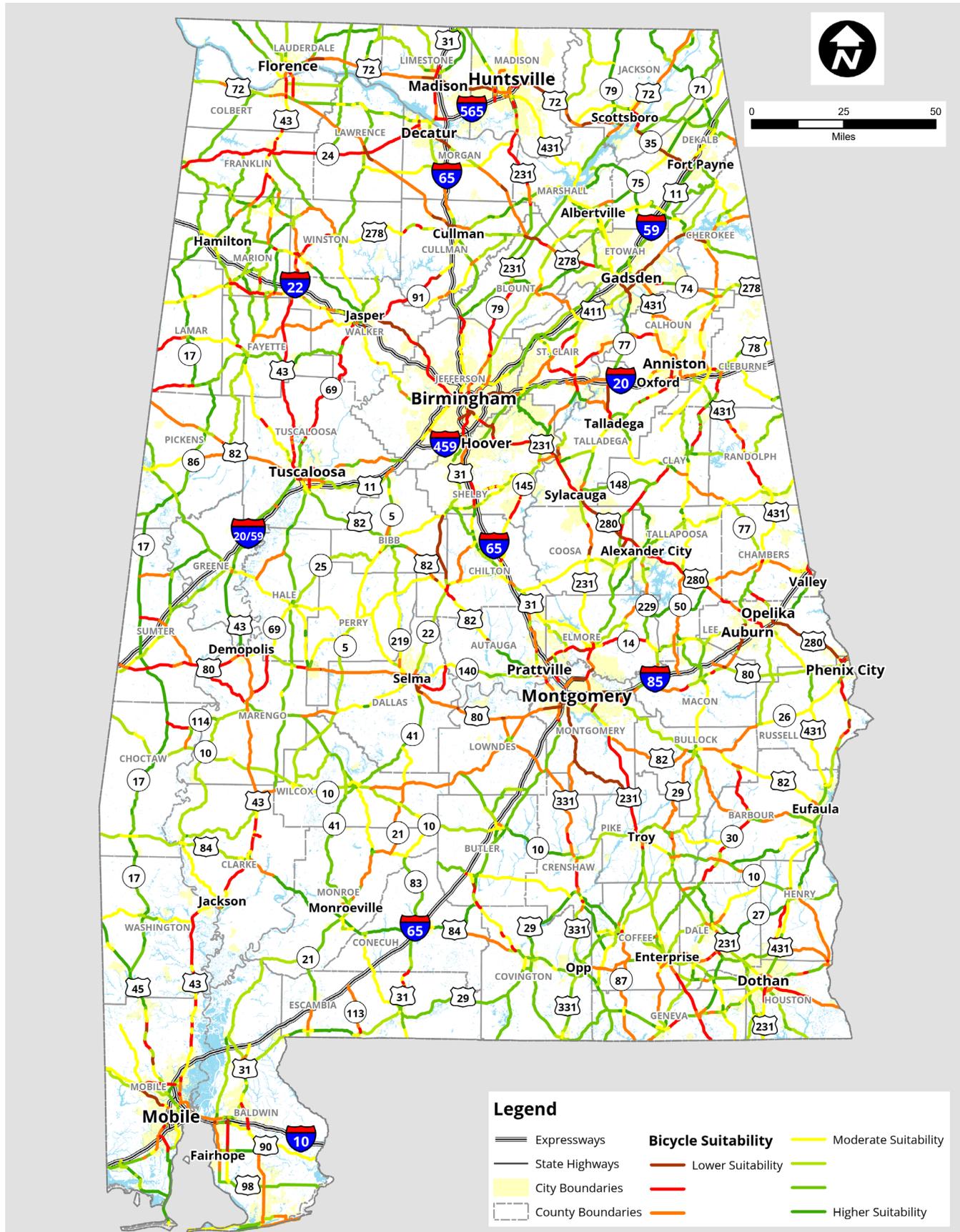
Table 08. Suitability Analysis Scoring (Urban)

Attribute	Criteria	Score
Average Daily Traffic (Urban)	0 – 2,000 vpd	10
	2,001 – 4,000 vpd	9
	4,001 – 6,000 vpd	8
	6,001 – 10,000 vpd	6
	10,001 – 15,000 vpd	4
	15,001 + vpd	2
Percentage of Heavy Trucks	0-2%	10
	3-4%	8
	5-10%	6
	11-12%	3
	13% +	2
Number of Lanes (Total Lanes on Roadway)	1-2 Lanes	10
	3 Lanes	7
	4+ Lanes	4
Speed Limit	35 MPH or lower	10
	40 – 45 MPH	7
	50 MPH	4
	55 MPH or higher	2

Table 09. Suitability Analysis Scoring (Rural)

Attribute	Criteria	Score
Average Daily Traffic (Rural)	0 – 1,000 vpd	10
	1,001 – 2,000 vpd	9
	2,001 – 3,000 vpd	8
	3,001 – 5,000 vpd	6
	5,001 – 7,500 vpd	4
	7,501 + vpd	2
Percentage of Heavy Trucks	0-2%	10
	3-4%	8
	5-10%	6
	11-12%	3
	13% +	2
Number of Lanes (Total Lanes on Roadway)	1-2 Lanes	10
	3 Lanes	7
	4+ Lanes	4
Roadway Shoulder Widths	No Shoulder	0
	1 – 5 ft	4
	6 – 10 ft	7
	Greater than 10 feet	10
	Speed Limit	35 MPH or lower
Speed Limit	40 – 45 MPH	7
	50 MPH	4
	55 MPH or higher	2

Figure 21. Statewide Bicycle Suitability



Key Findings

The greatest demand for utilitarian bicycle and pedestrian trips lies within urbanized areas, where high population and employment densities typically generate more bicycle and pedestrian activity, and important land uses are relatively close to each other. Accordingly, many urbanized areas, such as Birmingham, Huntsville, Montgomery, and Mobile, as well as several other cities across Alabama, have developed local bicycle and pedestrian plans to improve facilities and create better bicycle and pedestrian connections. Outside of urban areas, there are population groups, including low-income households, children and teenagers, and the elderly, who depend on alternate modes of transportation and would benefit from enhanced bicycle and pedestrian facilities for everyday needs (e.g., work, school, and access to healthcare).

There is widespread demand for recreational cycling across the state, and leisure and tourism-based bicycling is already popular in Alabama. Improving bicycle facilities on designated routes will make leisure and tourism-based bicycling safer for both bicyclists and motorists. Moreover, peer states have demonstrated that leisure and tourism-based bicycling can also attract out-of-state visitors and generate substantial economic development activity regionally and statewide.

In urbanized areas, where there are higher traffic volumes, there is a greater need for protected bicycle facilities that provide cyclists with a physical separation from motorists. Accordingly, many of the bicycle and pedestrian plans in urbanized areas recommend these types of facilities. In rural areas, the facilities most appropriate for on-road cycling typically have lower traffic volumes, a lower volume of heavy trucks, and paved shoulders. These factors should be considered when designated corridors for use by recreational cycling.

The bicycle suitability analysis scored urban and rural roadways based on rubrics. Typically, the most suitable places have low traffic, fewer heavy trucks, fewer lanes, wider shoulders, and lower speed limits to safely accommodate cyclists.



Source: Gresham Smith

Technical Memorandum C: Bicycle and Pedestrian Suggestions

2025



Alabama Statewide Bicycle and Pedestrian Plan



Prepared by Gresham Smith for the
Alabama Department of Transportation

ALDOT
Alabama Department of Transportation

**Gresham
Smith**

Introduction

Building on the analysis of existing conditions and trends and extensive public input, this section outlines a set of suggestions to improve bicycle and pedestrian transportation in Alabama. The suggestions include both actions for the near future as well as strategies that support the vision for bicycling and walking in Alabama as safe, comfortable, and convenient modes of transportation. Before turning to the suggestions, this section reviews the public and stakeholder input captured during the planning process.

Public and Stakeholder Outreach

A key component of the planning process for the Alabama Statewide Bicycle and Pedestrian Plan is public and stakeholder outreach. Because walking and bicycling conditions and needs vary widely across the state, it is essential to work with local officials and system users to understand specific opportunities and challenges. The planning process relied on multiple outreach tools to learn more about the opportunities and challenges facing bicyclists and pedestrians, including a project advisory committee, online surveys, and regional workshops.

Project Advisory Committee

The Project Advisory Committee (PAC) was formed to provide input and expertise on bicycle and pedestrian travel from a variety of perspectives at the local, regional, and statewide levels. The PAC is comprised of representatives from the Alabama Department of Transportation (ALDOT), other government agencies, regional planning organizations, and bicycle and pedestrian advocacy organizations. Throughout the lifespan of the Alabama Statewide Bicycle and Pedestrian Plan, the PAC met three times to discuss the vision and goals of the Plan, examine best practices for bicycle and pedestrian planning, review survey results, and offer feedback on the draft bicycle network and bicycle and pedestrian design guidelines.

Online Survey

At the outset of the planning process, ALDOT and the project team distributed to bicycle and pedestrian stakeholder groups throughout Alabama an online survey in the form of an interactive map. The goal of the survey was to learn more about current walking and bicycling activities and identify needs for new and improved pedestrian and bicycle facilities in the state. The interactive map allowed respondents to add comments under the categories: Key Destination, Improvements Desired, or General Comment. Thirty-five people left over 530 comments on the online survey map over the course of one month. ALDOT and the project team used the survey data to help develop the draft goals and objectives for the plan and provide an initial framework for the draft bicycle corridor network. Appendix C presents the results of the online survey.

Regional Workshops

In fall 2024, ALDOT and the project team held a series of five regional public workshops for the **Statewide Bicycle and Pedestrian Plan** – one in each of the five ALDOT regions. The workshops were structured as open houses, allowing attendees to attend anytime between the hours of 5:00 PM and 7:00 PM. The meetings took place on the following dates and locations:

- West Central – October 28, 2024, 2715 East Skyland Boulevard, Tuscaloosa
- North – October 29, 2024, 1525 Perimeter Parkway Northwest, Suite 400, Huntsville
- East Central – October 30, 2024, 924 Bankhead Highway West, Birmingham
- Southwest – November 6, 2024, 1701 I-65 West Service Road North, Mobile
- Southeast – November 7, 2024, 1525 Coliseum Boulevard, Montgomery

Individuals unable to attend in person could access online versions of the existing conditions, survey, and map. Via the project website, participants could respond to and provide input on the same questions and information presented at the regional workshops.

A total of 153 people attended the regional workshops. The regional workshops featured a number of exercises to engage the public and obtain feedback on the draft goals, objectives, strategies, and bicycle corridor plan. In addition to the input gathered through the exercises, participants left/submitted numerous comments. While the comments addressed a number of different issues, they focused on the following themes:

- Safety concerns (28 comments)
- Suggestions for design and/or placement of bicycle facilities (42 comments)
- Suggestions for design and/or placement of pedestrian facilities (32 comments)

Priority Strategies and Suggested Actions

From more than 25 potential strategies in four broad goal areas (safety, access and mobility, economic development, and quality of life and the environment), stakeholders and the general public prioritized 17 strategies (Table 10). Largely consistent with the PAC guidance, the highest priority strategies center on safety, education, and access.

- Prioritize programs and improvements with the greatest potential to reduce pedestrian and bicycle crashes, injuries, and fatalities.
- Develop educational materials and public information campaigns on safe walking, bicycling, and driving (e.g., “Share the Road” and pedestrian crossing laws).
- Improve connectivity between pedestrian and bicycle facilities on state highways and local greenway and shared use path systems.

The following sections highlight suggested steps for the three highest-priority strategies. For each strategy, the suggestion outlines the issue, describes current practices, and identifies suggested actions. In many cases, strategies and actions in one category are closely related to those in another category, e.g., safety and access. It is also important to underscore that while the suggestions outlined here are focused on pedestrians and bicyclists, such improvements will also generate benefits for the overall transportation system, resulting in a safer and more efficient system for everyone.

Table 10. Priority Strategies

Strategy	Public Priority	Goal
Prioritize improvements and programs with the greatest potential to reduce bicycle and pedestrian crashes, injuries, and fatalities.	1	A
Develop educational materials and public information campaigns on safe walking, bicycling, and driving.	2	A
Improve connectivity between bicycle and pedestrian facilities on state highways and local greenway and shared use path systems.	2	D
Coordinate state transportation planning and local land use planning to ensure walking and bicycling facilities are included in local plans and projects along state highways.	4	D
Increase access to walking and bicycling facilities for people unable to operate a motor vehicle and for households without personal vehicles.	5	D
Integrate bicycle and pedestrian improvements as part of regular maintenance activities.	5	B
Develop a state bicycle and pedestrian webpage that includes maps, updates on policies, programs, and projects, and links to additional resources.	7	D
Track, analyze, and report annual bicycle and pedestrian safety statistics.	8	A
Support statewide education and training programs on bicycle and pedestrian safety for state and local law enforcement officials.	9	A
Identify priority bicycle and pedestrian improvement areas in consultation with local officials and stakeholders.	9	C
Expand and improve the bicycle and pedestrian networks to, from, and within natural and scenic areas, including national, state, regional, and local parks.	11	D
Update project development policies and procedures to ensure that bicycle and pedestrian needs are evaluated in all projects.	11	B
Review and regularly update driver training and testing materials to include information on bicycle and pedestrian safety and laws.	13	A
Collaborate with national and local partners on implementing the US Bicycle Route System in Alabama.	13	B
Coordinate with regional and local transit agencies on bicycle and pedestrian improvements in transit corridors.	15	C
Work with post-secondary educational institutions to improve bicycling and walking to and from campuses.	15	C

Goals

*A. Improve safety for bicyclists and pedestrians of all ages and abilities.
B. Develop complete and connected bicycle and pedestrian systems.*

*C. Support state, regional, and local economic development.
D. Expand travel options for all transportation system users and protect the natural environment.*

Priority Strategy: Prioritize Pedestrian and Bicycle Safety Programs and Improvements

As walking and bicycling have increased across the country, the number and severity of crashes involving pedestrians and bicyclists have remained largely constant and have increased as a percentage of total traffic crashes. Accordingly, additional strategies and tools have been developed nationally to improve safety for pedestrians and bicyclists, either complementing or augmenting the traditional safety initiatives focused on the 5 E's: evaluation and planning, engineering, education, encouragement, and enforcement. The new set of national policies, programs, standards, and guidance aimed at improving safety, includes:

- Federal Highway Administration (FHWA), **Vulnerable Road User Safety Assessment Guidance** (2023), which outlines how states should report on bicyclist and pedestrian safety statistics;
- FHWA, **Complete Streets: Prioritizing Safety for All Road Users** (2023), which outlines roadway design guidance with considerations for bicycle and pedestrian safety;
- United States Department of Transportation (USDOT), **National Roadway Safety Strategy** (2022), which expands its previous *Safer Roads, Safer People* program and includes a series of targeted initiatives;
- FHWA, **PedSafe and BikeSafe Updates** (2013, 2014), which provide information on pedestrian and bicycle safety countermeasures, i.e., tools and treatments;
- FHWA, **Bicycle-Pedestrian Count Technology Pilot Project** (2016), which identifies best practices in counting data collection;
- FHWA, **National Bicycle and Pedestrian Safety Performance Measures** (2016), which requires states to report annually a combined pedestrian and bicycle injury and fatality measure;
- FHWA, **Achieving Multimodal Networks: Addressing Design Flexibility and Reducing Conflicts** (2016), which identifies flexible strategies for addressing common design challenges and barriers;
- FHWA, **Strategic Agenda for Pedestrian and Bicycle Transportation** (2016), which focuses on improving multimodal outcomes in the federal transportation funding process;
- FHWA, **Bicycle and Pedestrian Funding, Design, and Environmental Review: Addressing Common Misconceptions** (2015), which clarifies common misunderstandings about federal funding, street design, and environmental review requirements for pedestrian and bicycle programs and projects;
- FHWA, **Memorandum on Bicycle and Pedestrian Facility Design Flexibility Guidance** (2013), which expresses FHWA's support for the use of design

guides developed by the National Association of City Transportation Officials (NACTO) and the Institute of Transportation Engineers (ITE) in addition to the American Association of State Highway and Transportation Officials (AASHTO) bicycle and pedestrian design guides; and

- USDOT, **Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations** (2010), which emphasizes the incorporation of safe and convenient walking and bicycling facilities in transportation projects.

Regionally, states throughout the southeast United States have also undertaken initiatives to improve pedestrian and bicycle safety as populations continue to increase, age, and become more urban and suburban. The state initiatives essentially fall under the umbrella of the 5 E's of pedestrian and bicycle safety.

- **Engineering** – Complete Streets policies (Florida, Georgia, Louisiana)
- **Education** – Share the Road campaigns (Alabama, Florida, Georgia, Louisiana, Mississippi, Tennessee)
- **Enforcement** – Safe passing laws (Alabama, Florida, Georgia, Louisiana, Mississippi, Tennessee)
- **Evaluation and Planning** – Bicycle and Pedestrian Safety Action Plans (Florida, Georgia)
- **Encouragement** – Bicycle safety fairs for school-aged children (Louisiana)

Current Practice in Alabama

Total pedestrian and bicycle crashes in Alabama have followed the slowly rising national trend and have fluctuated within a relatively narrow range. Excluding 2020, likely due to the COVID-19 pandemic, total pedestrian crashes have numbered between 615 and 774 per year from 2019 to 2023, with between 15 and 18% of the crashes resulting in fatalities. Similarly, total bicycle crashes have varied between 204 and 244 per year during the same time period, with between 3 and 5% of the crashes resulting in fatalities.

Importantly, ALDOT already has several new initiatives underway that will accelerate bicycle and pedestrian safety in Alabama and generate improved outcomes. The interagency **Alabama Strategic Highway Safety Plan (SHSP)**, for example, has adopted a "Toward Zero Death" policy, establishing a target of reducing combined traffic fatalities and injuries by 50% by 2040.

Two additional ALDOT initiatives, the **Guidance for Road Safety Assessments and Reviews** (2016) and the **Vulnerable Road User Safety Assessment** (2023), provide tools to improve pedestrian and bicycle safety across the state and serve as resources for local communities.

Suggested Actions

As the **Alabama Strategic Highway Safety Plan** documents, there are many factors that impact pedestrian and bicycle safety – from roadway and location factors to behavioral and policy factors. Prioritizing safety programs and improvements, in turn, depends on identifying the specific problems facing a state or local community. While it is beyond the scope of this plan to identify specific safety problems and countermeasures, the following suggested actions are intended to augment ongoing safety initiatives.

- A. Provide Technical Training on Pedestrian and Bicycle Facility Planning and Design:** Pedestrian and bicycle planning and design have changed substantially in recent years and will likely continue to do so as multimodal transportation networks become more complex and integrated. In order to make improvements that have the greatest potential to reduce crashes, injuries, and fatalities, planners and engineers need to remain current with best practices in pedestrian and bicycle facilities planning and design. Regular updates to ALDOT's design policies (Guidelines for Operation) and standards (Standard Drawings) incorporating national best practices in pedestrian and bicycle design as well as FHWA's 2013 **Bicycle and Pedestrian Design Guidance Flexibility Memorandum** underscore the wide range of design options available to support walking and bicycling generally and address safety problems more specifically.
- B. Identify Bicycle and Pedestrian Safety Champions:** ALDOT or the PAC may choose to identify government employees, either within ALDOT or other state and local agencies, with strong interests in multimodal transportation. Those individuals can be encouraged to advocate for bicycle and pedestrian interests in their respective roles. For example, champions in public affairs roles may design and lead bicycle and pedestrian safety programs, while a champion in roadway design may stay up-to-date with the latest bicycle and pedestrian design standards and share their knowledge with colleagues. Choosing champions in a variety of roles and agencies will widen the reach of these efforts.



Source: ALDOT

Priority Strategy: Safe Walking, Bicycling, and Driving Educational Campaigns

All road users share the responsibility for safety. While “Share the Road” policies and pedestrian crossing laws exist, education and information are powerful tools to improve public awareness for existing safety measures. Other southern states have created public information campaigns such as GDOT’s See & Be Seen pedestrian education program, Louisiana’s bicycle safety fairs aimed at elementary-aged children, and FDOT’s Alert Today Alive Tomorrow bicycle safety campaign. Alabama’s Vulnerable Road User (VRU) Safety Assessment suggests creating a culture of VRU safety through education and engagement. Specifically, the suggestion is that ALDOT, “Develop a Strategic Outreach Plan and toolkit that will focus on educating the public to address issues and problems specific to VRU safety in each ALDOT Region.” National resources and guidebooks for creating educational campaigns include:

- The League of American Bicyclists’ **National Bike Month Guide** (2023), which provides ideas, strategies and sample materials for promoting bike safety;
- FHWA’s **A Resident’s Guide for Creating Safer Communities for Walking and Biking** (2015), which contains strategies that can be adapted to suit local and statewide governments;
- USDOT’s **Step-by-Step Guide - National Pedestrian Safety Campaign** (2008), which breaks down the process of creating a public safety campaign for organizers; and
- The National Highway Traffic Safety Administration (NHTSA)’s **Ideas to Promote Bicycle Safety** pamphlet, which lists 43 ideas for engaging communities in bicycle safety education.

Current Practice in Alabama

The most prominent safety campaigns currently running in Alabama are created by ALDOT and the Alabama Law Enforcement Agency (ALEA).

“Drive Safe Alabama” is a program created by ALDOT that focuses on aspects of road safety including distracted driving and speeding, in addition to bicycle safety. “Drive Safe Alabama” emphasizes the importance of public education about road safety laws and statistics. However, pedestrian safety is not one of the initiative’s major focus areas.

ALEA operates a “Share the Road” campaign each May for National Motorcycle and Bicycle Safety Awareness Month. The Agency shares safety tips for drivers, motorcyclists, and bicyclists with media outlets and participates in educational events statewide during the annual campaign.

In response to a severe increase of pedestrian deaths in 2021, ALEA launched “Everyone is a Pedestrian” in January 2022. Similar to the “Share the Road” campaign, “Everyone is a Pedestrian” sought to raise awareness of pedestrian safety amongst all road users by sharing safety tips.

Suggested Actions

Drive Safe Alabama establishes an important foundation for increasing safety education among all road users. Strategic planning and execution can augment current practices and ensure that more bicyclists, pedestrians, and drivers benefit from increased awareness. Suggested actions include:

- Review National Resources and Guides for Public Safety Initiatives:** Numerous resources are available for creating and administering impactful public safety campaigns, including those mentioned previously in this section. Regular reviews of new resources will provide fresh ideas for new initiatives and ensure that existing safety campaigns remain relevant and productive.
- Collaborate on Bicycle and Pedestrian Safety Campaigns:** Other state agencies with strong interests in road safety, such as ALEA, could be effective partners in public education campaigns. Interagency collaboration will combine resources and experience to create stronger safety initiatives. Additionally, smaller organizations at the local level, such as advocacy groups or municipal governments, may have a need for such programming but lack funding or expertise. ALDOT would be a valuable partner in promoting public safety at the local level.



Source: Gresham Smith

Priority Strategy: Improve Connections Between Pedestrian and Bicycle Facilities on State Highways and Local Greenway and Shared Use Path Systems

Increasingly, pedestrian and bicycle facilities to, from, and along greenways and shared use paths are viewed as important elements of the transportation system. Once considered facilities for recreational purposes only, greenways and shared use paths – whether in a park or natural area or adjacent to a highway – now provide important connections in local, regional, and state transportation systems. Significantly, they typically provide a much safer walking and bicycling option for a much broader range of ages and abilities than on-road facilities.

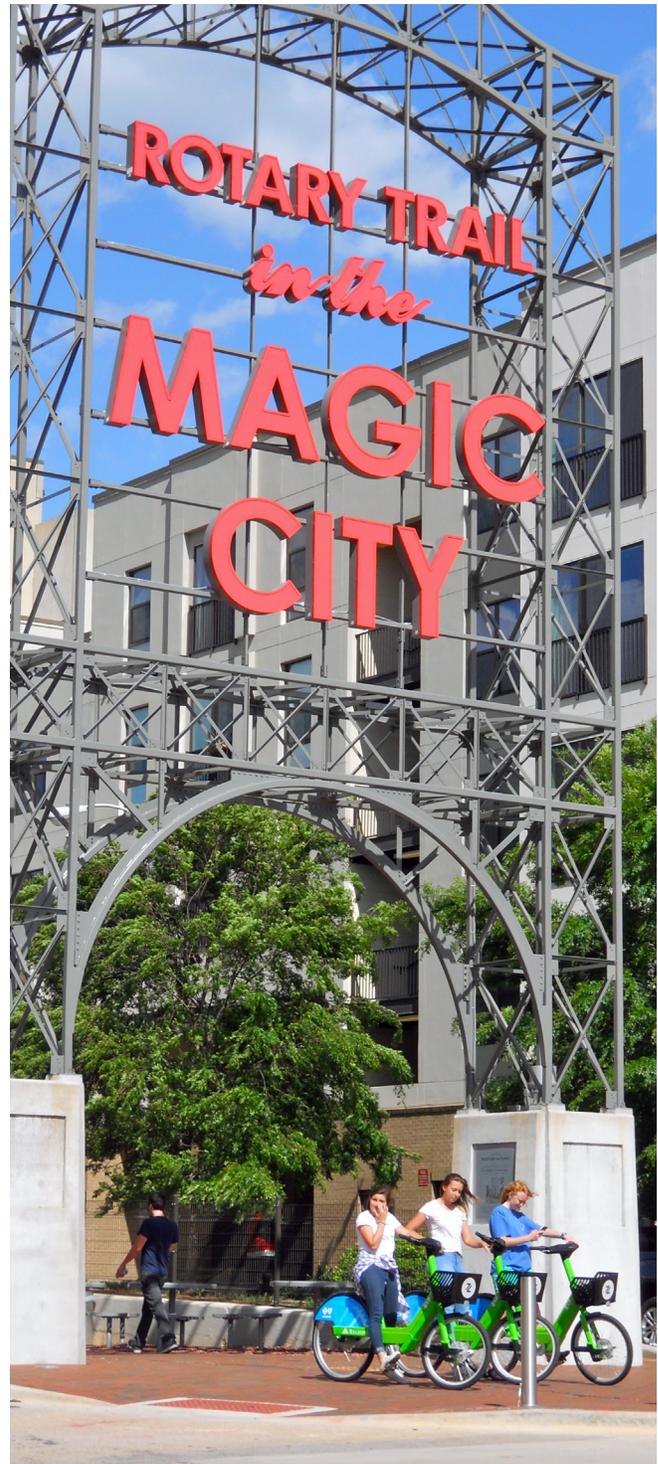
As important elements of the overall transportation system and local economies, greenways and shared use paths have also become important economic development assets. Business districts, tourism destinations, and residential communities in rural areas, small towns, and large cities all benefit from the additional access provided by walking and bicycling facilities.

Current Practice in Alabama

During the process of programming projects along a corridor, staff reviews the statewide bike ped plan as well as MPO and local plans to see if improvements have been identified. In addition to reviewing specific plans, staff employ engineering judgement to consider whether new or enhanced bicycle and pedestrian facilities can be accommodated, as well as the design details for these facilities.

On the local level, cities and towns across Alabama are investing in pedestrian and bicycle facilities to improve transportation options and strengthen economies. Among the many examples of existing and planned shared use path systems and tourism-based bicycle routes discussed during the statewide planning process are:

- **Anniston and Piedmont** – Chief Ladiga Trail;
- **Birmingham** – Red Rock Ridge and Valley Trail System;
- **Cherokee County** – Cherokee Rock Village (Leesburg) to Little Canyon River Nature Center (Fort Payne);
- **Guin** – Guin, Hamilton, and Winfield Loop;
- **Gulf Shores and Orange Beach** – Hugh S. Branyon Back Country Trail in Gulf State Park; and
- **Jackson County** – Scenic Routes of Jackson County, Alabama.



Source: Gresham Smith

Suggested Actions

As greenway and shared use path systems expand, state highways represent important links for connecting on-road and off-road facilities. Because of the wide latitude in federal transportation funding programs for pedestrian and bicycle facilities, most roadway projects – including new construction, reconstruction, resurfacing, and safety projects – present opportunities to make these critical connections between off-road and on-road facilities. Of course, the *TA Set-Aside Program* is also an important resource for these connections. Following are three suggested actions for improving integrated roadway, greenway, and shared use path transportation systems.

A. Inventory and Map Existing and Planned Greenways, Shared Use Paths, and Parks:

A comprehensive inventory and map of all state and local existing and planned greenways, shared use paths, parks, and natural areas will directly support the development of an integrated multimodal transportation system. Not only can shared use paths and greenways complement and extend on-road facilities and sidewalks, but they can also provide important connections to additional transportation systems such as public transit and address common walking and bicycling barriers such as limited access highways, major arterials, railroads, and natural features. Mapping parks and natural areas, in particular, can help address natural feature barriers. Taken together, inventorying and mapping are important first steps to incorporating shared use paths and greenways into transportation planning and design decision making processes.

Partner organizations, such as Metropolitan Planning Organizations (MPOs) and Regional Planning Organizations (RPOs) may serve as local and regional resources for building the inventory. The Alabama Department of Economic and Community Affairs (ADECA) and other agencies with involvement in trail and greenway efforts may also work with ALDOT to accomplish this goal.

B. Utilize Best Practices in Greenway and Shared Use Path Planning and Design:

In order to support the increasing use of shared use paths and greenways for transportation purposes, planners and designers need to clearly understand desired destinations, the broad range of potential users, and best practices for integrating off-road and on-road facilities. From a planning perspective, greenways and shared use paths can serve as important options where local street networks lack connectivity. They can also provide a more direct connection between destinations. New and updated FHWA and AASHTO design guidance on shared use paths emphasizes the importance of planning and designing for different types of users, including the future number of total users and differences in speed. Moreover, because of the variability among users, design strategies should weigh various options regarding path width, clearance/shoulders, separation, turning movements, and intersections.

C. Collaborate with Public and Private Sector Partners on Economic Development Opportunities Related to Greenway and Shared Use Path Systems:

Collaborating with public and private sector agencies and organizations responsible for economic development, tourism, parks, and greenways will help prioritize on-road/off-road improvements and potentially leverage additional funding sources. Priorities may include closing gaps in regional greenway and shared use path networks, targeting short-trip opportunities and access points, maintaining print and electronic maps, and improving wayfinding signage and traffic control devices at highway crossings. As noted earlier, a number of states have realized significant economic impacts from bicycle related investments, and several counties in Alabama are pursuing similar economic development initiatives.



Source: Gresham Smith

Potential Bicycle Corridors

A statewide bicycle corridor network establishes the framework for developing a bicycle route system that can support safe and efficient bicycle travel at multiple geographic scales – national, state, regional, and local. Before describing the process for developing the potential Alabama bicycle corridor network, it is important to highlight the distinction between a bicycle corridor and a bicycle route.

- **Bicycle Corridor** – In transportation systems planning, regardless of travel mode, corridors are broadly defined linear areas connecting destinations. Because the width of a corridor can vary from several hundred feet to tens of miles, depending on needs and the level of analysis, corridors do not identify specific improvements and alignments in planning studies. For the purpose of this plan, bicycle corridors are delineated to guide future bicycle route development between destinations that may ultimately include combinations of state highways, county roads, local streets, and trails, as well as different bikeway facilities – including shared lanes, paved shoulders, bicycle lanes, bicycle boulevards, and shared use paths.
- **Bicycle Route** – Alternatively, a bicycle route is any roadway or bikeway designated with a unique route designation or “Bike Route” signs. A bicycle route network is a system of suggested routes to reach specific destinations, and should include wayfinding and destination information. Bicycle route designation indicates to bicyclists that the route provides advantages over other non-designated routes – including roadway factors (e.g., adequate width, high quality pavement, good sight distance), traffic factors (e.g., traffic volumes, posted speed limits, percentage of trucks), and network factors (e.g., high demand destinations, directness, available services).

It is also important to note that the corridor network differs from the routine pedestrian and bicycle accommodation required by the USDOT **Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations**. Effectively, the USDOT policy calls for the provision of pedestrian and bicycle facilities as a matter of routine, except where pedestrians and bicyclists are prohibited by law from using a roadway, cost is excessively disproportionate to the need or probable use, and in sparsely populated areas. A bicycle route system builds on the routine accommodation improvements to identify preferred routes.

Corridor Approach

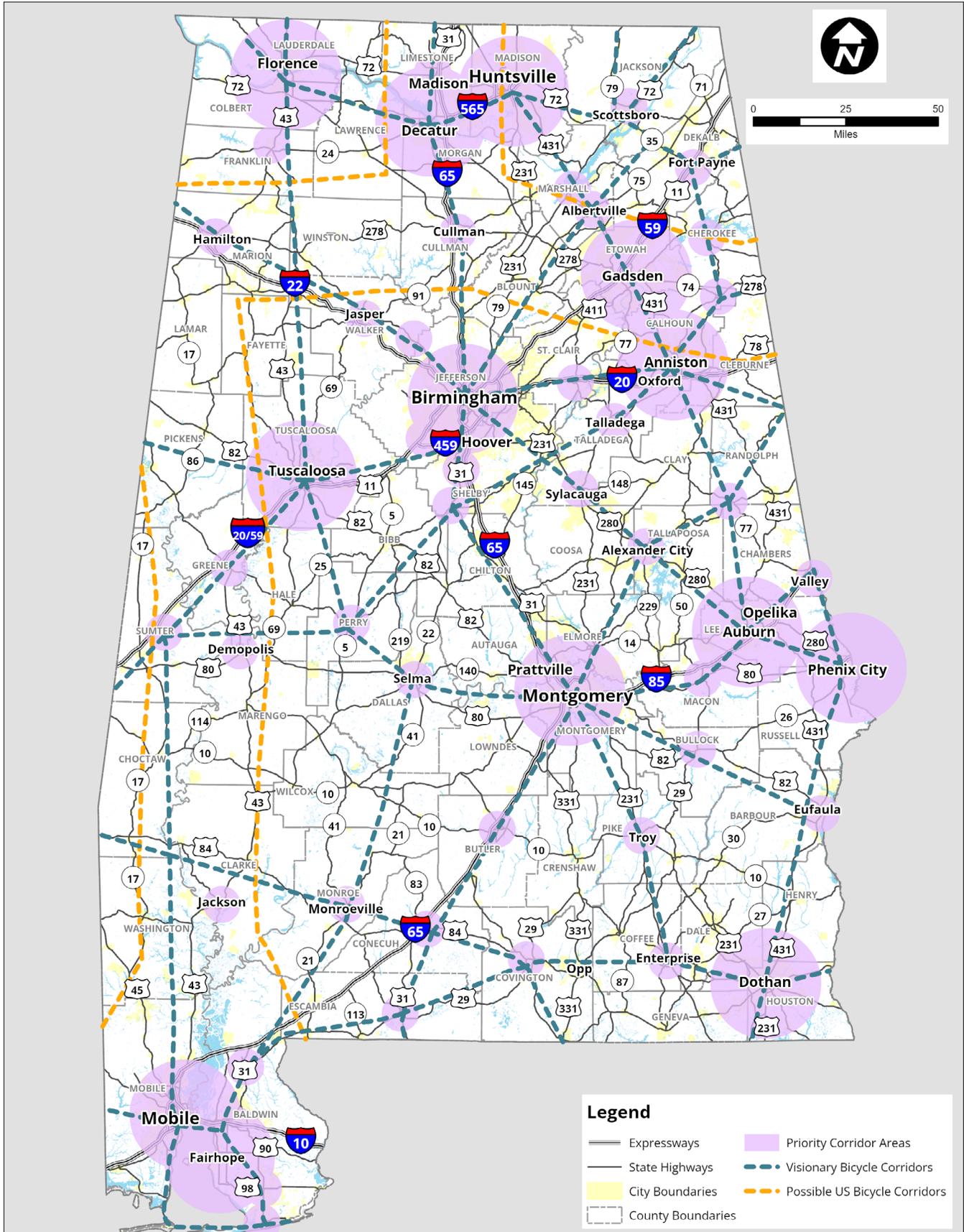
The Alabama bicycle corridor network suggested in this plan is built around three core concepts that dovetail with the priority strategies discussed in the previous section and complement one another.

1. **Safety** – Providing safe and comfortable bikeway facilities is the highest priority, and consequently, that calls for maintaining a high degree of flexibility in the bicycle corridor network so that local and state partners can develop designated routes at the corridor planning scale that best meet bicyclists’ needs.
2. **Access** – Providing access to essential everyday needs, especially for traditionally underserved populations, is another principal goal of the plan, and is captured in the high bicycle transportation demand areas designated as priority corridors.
3. **Economic Development** – In addition to the high bicycle transportation demand areas, the corridor map proposes potential connections to natural and cultural resource destinations such as state parks and historic sites. Many of these destinations serve as important economic development drivers for communities, especially in rural areas. While most of the connections to these destinations are depicted as vision corridors, others fall within the priority corridor areas and could be developed sooner.

Building on the core concepts, the bicycle corridor network combines technical criteria and direction provided by the PAC, ALDOT regional staff, MPO bicycle and pedestrian plans, and public and stakeholder input. The technical criteria that helped shape the corridor network, includes:

- Safety and geographic barriers;
- System continuity and accessibility;
- Trip length and directness;
- Connections to major activity centers and intermodal centers;
- Connections to regional and local routes and plans;
- Connections to scenic, cultural, historic, and tourism destinations;
- Connections to the US Bicycle Route System;
- Connections to adjacent state routes and plans; and
- Ensuring services are available every 40-60 miles.

Figure 22. Potential Bicycle Corridors



Potential Bicycle Corridor Plan

The potential bicycle corridor plan is delineated into priority corridors and vision corridors. Priority corridors fall within cities and towns demonstrating a higher-than-average potential demand for bicycle transportation. To capture maximum reasonable bicycle trip distances, a 15-mile radius highlights the priority corridors in cities with populations greater than 50,000. The radius accounts for the multiple activity centers and destinations found in larger cities. In cities with populations less than 50,000 and a higher than average potential demand for bicycle transportation, a five-mile radius describes priority corridors. In conjunction with the emphasis on safety and flexibility in the corridor approach, the intent of the priority corridors is to focus limited resources on those areas where access to everyday needs is greatest.

The vision corridors link the areas with a higher potential demand for bicycle transportation to one another and to other major destinations including state parks, scenic areas, and adjacent state routes. Echoing a strong desire to focus on safe, convenient, and comfortable bicycle routes, public and stakeholder input emphasized the need to evaluate all possible on-road and off-road combinations to identify routes. Accordingly, developing the vision corridors into bicycle routes will require strong interagency and interjurisdictional collaboration. Statewide and local stakeholder groups, such as River Region Trails, Sweet Trails Alabama, and the Alabama Bicycle Coalition, can and should play a critical role during corridor planning processes.

Figure 22 illustrates the bicycle corridor plan. It is important to emphasize that the bicycle corridors shown on this map are for planning purposes only. Within each corridor, projects would be evaluated for bicycling as a viable mode of transportation based upon standard engineering practices adopted by ALDOT.

Key Findings

Feedback from public meetings informed the priority strategies and suggested actions organized in Table 11.

Table 11. Key Findings

Priority Strategy	
1.	Prioritize Pedestrian and Bicycle Safety Programs and Improvements
Suggested Actions	
a.	Provide Technical Training on Pedestrian and Bicycle Facility Planning and Design
b.	Identify Bicycle and Pedestrian Safety Champions
Priority Strategy	
2.	Safe Walking, Bicycling, and Driving Educational Campaigns
Suggested Actions	
a.	Review National Resources and Guides for Public Safety Initiatives
b.	Collaborate on Bicycle and Pedestrian Safety Campaigns
Priority Strategy	
3.	Improve Connections between Pedestrian and Bicycle Facilities on State Highways and Local Greenway and Shared Use Path Systems
Suggested Actions	
a.	Inventory and Map Existing and Planned Greenways, Shared Use Paths, and Parks
b.	Utilize Best Practices in Greenway and Shared Use Path Planning and Design
c.	Collaborate with Public and Private Sector Partners on Economic Development Opportunities Related to Greenway and Shared Use Path Systems

Technical Memorandum D: Implementation Plan

2025



Alabama Statewide Bicycle and Pedestrian Plan



Prepared by Gresham Smith for the
Alabama Department of Transportation

ALDOT
Alabama Department of Transportation

**Gresham
Smith**

Introduction

Identifying priority strategies, recommended actions, and a statewide bicycle corridor plan, the previous section established a framework for meeting the goals and objectives of the **Alabama Statewide Bicycle and Pedestrian Plan**. This section focuses on a series of steps to help implement the recommendations. The implementation steps or tools are intended to provide a strong foundation for improving walking and bicycling in Alabama and support the full range of suggested actions.



Source: Gresham Smith

Design Guidance

There are many ways to include walking and bicycling facilities in transportation corridors and systems. While roads should be designed to accommodate pedestrian and bicyclists to ensure safe travel conditions, different contexts and conditions require different approaches to facility selection and design. Design guidance can be used to incorporate walking and bicycling facilities routinely in construction, reconstruction, and 3R projects, or select improvements that will enhance facilities on designated state bicycle routes.

Bikeway Facilities Design Guidance

For bikeway facilities, contexts and conditions can vary widely, from very rural areas with a few adult bicyclists to large metropolitan regions with a full range of users. The design guidance presented in this section emphasizes a “low-stress bicycle network,” or bike facilities that are safe and comfortable for all users. Generally, as vehicle speeds and traffic volume increase on a roadway, bicyclists should be afforded greater protection.

This guidance establishes a framework for narrowing the list of options by development patterns (e.g., rural, suburban, urban), traffic volumes, and vehicle speeds. Importantly, each of the options identified in Figure 25 provides flexibility in terms of facility type and/or potential dimensions relative to expected users.

Rural Bicycle Facility Types

Shared Lane

With a shared lane, bicyclists ride alongside vehicles in mixed traffic. Ideally, there are pavement markings and/or roadside signage to alert motorists to the potential presence of cyclists and inform them that bicyclists are permitted to ride in the roadway. The use of shared lanes should be restricted to roads with traffic volumes under 1,000 vehicles per day (vpd), and ideally, with a speed limit of 35 miles per hour (mph) or less. If greater than 5% of traffic consists of heavy vehicles, than a paved shoulder or separate bike path should be considered.

Paved Shoulder

When traffic volumes exceed 1,000 vehicles per day, cyclists may ride on a paved shoulder. The shoulder should be five to ten feet wide, increasing in width as traffic volumes and vehicle speeds rise. Shoulders often have rumble strips as a safety countermeasure, to alert motorists if they are departing from the roadway. Ideally, the rumble strips should be installed on the edge of the shoulder closest to the vehicular travel lane, so the majority of the shoulder space is available for use by bicyclists.¹

¹<https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-07/fhwasa18077.pdf>

Design guidance for bicycle facilities in rural areas is shown in Figure 25. The **FHWA Bikeway Selection Guide** references existing national resources from FHWA, the American Association of State Highway and Transportation Officials (AASHTO), the National Association of City Transportation Officials (NACTO), the Institute of Transportation Engineers (ITE), and others. It is not intended to supplant existing design guides, but rather serve as a decision support tool.



Source: Adobe Stock

Figure 23. Example of Shared Lane



Source: Small Town and Rural Design Guide

Figure 24. Example of Paved Shoulder

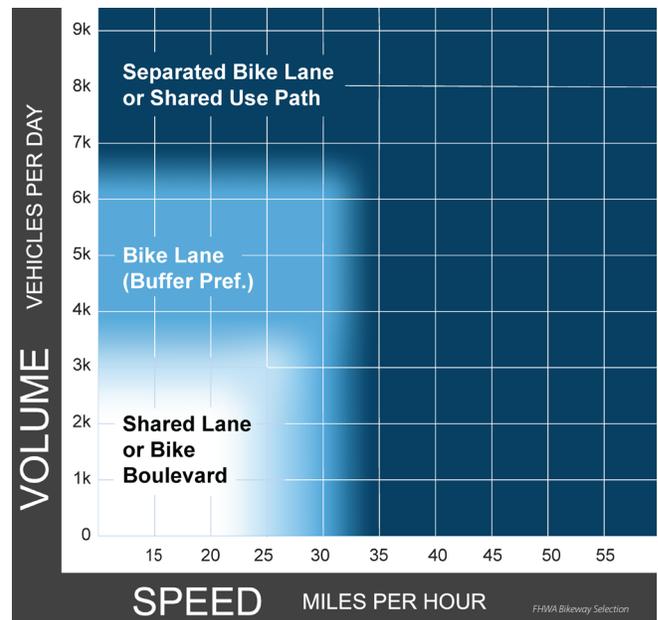


Figure 25. Rural Bicycle Facility Type Guidance

Suburban and Urban Bicycle Facility Types

Bicycle Boulevard

Similar to shared lanes, bicycle boulevards facilitate bicyclists riding with mixed traffic on low-volume, low-speed streets. Bicycle boulevards include shared lane markings and signage as well as traffic calming features such as chicanes and narrowed lanes to make it safer for bicycles to operate. When streets with bicycle boulevards intersect corridors with higher traffic volumes or speeds, bicycle boulevards may need to transition to a more protected facility such as a separated bike lane.

Separated Bicycle Lane

When the traffic volume exceeds 3,000 vpd and vehicles travel at more than 25 mph, a separated bicycle lane should be provided in a suburban or urban area. In a separated bicycle lane, bicyclists ride in a dedicated space along the road with the protection of a vertical element such as a curb, delineators, or on-street parking. Separated bicycle lanes can allow for either one-way or two-way bike traffic. In order to protect bicyclists at intersection approaches, there should be signage alerting motorists to the presence of bicyclists, and additional measures such as separate phases for turning bicyclists or reducing corner radii should be considered.

Side Path

When the traffic volume exceeds 7,000 vpd and vehicle speeds are over 35 mph, a side path is the most appropriate facility for a bicyclist in a suburban or rural area. A side path, also known as a shared-use path, is a bi-directional space for bicyclists to operate along a roadway, separate from vehicular traffic. These typically look like a wide sidewalk and can be used by cyclists as well as pedestrians. Side paths have a wide buffer from the roadway to provide protection for bicyclists and pedestrians. The buffer may consist of trees, landscaping, or on-street parking.²

² <https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-07/fhwasa18077.pdf>

Source: FHWA Small Town and Rural Multimodal Networks



Figure 26. Example of Bicycle Boulevard



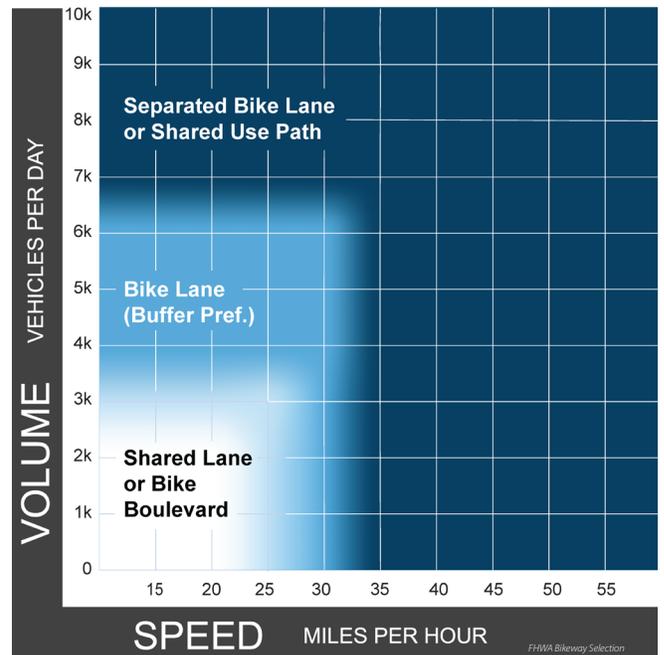
Source: USDOT

Figure 28. Example of Separated Bicycle Lane



Source: Gresham Smith

Figure 29. Example of Side Path



Source: FHWA Bikeway Selection Guide

Figure 27. Suburban and Urban Bicycle Facility Type Guidance

In addition to traffic volume and vehicle speeds, there are a number of variables that call for a higher degree of separation and wider dimensions for bicycle facilities. These include:

- High expected bicyclist volumes;
- Locations serving popular community destinations, such as schools;
- Steep grades;
- Presence of on-street parking; and
- Diverse experience levels of expected bicyclists.

Because consistency and continuity are important for both bicyclists and motorists, bikeway facility selection should also consider how proposed facilities connect to the overall bicycle network. It is not uncommon for bikeway facility types to end abruptly, resulting in unsafe conditions for all roadway users. Finally, counties and municipalities are increasingly developing their own local bikeway facility design standards and guidance. Where local bicycle networks coincide with state highways, additional analysis and design flexibility may be required to ensure that facilities connect seamlessly and safely for users.

Pedestrian Facilities Design Guidance

Similar to bikeways, pedestrian facilities guidance is organized around development patterns, traffic volumes, and vehicular speeds. The more urban an environment, and the higher the traffic volumes and speeds are along a roadway, pedestrian facilities should provide greater magnitudes of comfort and protection.

Rural Pedestrian Facility Types

Sidewalks are the preferred type of facility for pedestrians in rural areas. Ideally, they should be provided on both sides of the roadway and should be a minimum of five feet wide. On low-volume, low-speed roads where right-of-way or other constraints do not allow for sidewalks, pedestrians may walk along paved shoulders if they are at least six feet wide. If paved shoulders are used as a substitute for sidewalks, then they should be maintained and kept free of debris, and there should be signage alerting motorists to the presence of pedestrians.³⁴

³https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_1g.pdf

⁴<https://ruraldesignguide.com/>

Urban Pedestrian Facility Types

In suburban and urban areas, either sidewalks or side paths are the preferred facility type, depending on the speed and volume of vehicles along the adjacent street. Sidewalks should be a minimum of five to six feet wide, and side paths should be a minimum of eight to ten feet wide. Both sidewalks and side paths should have a buffer along the roadway of four to six feet in width. If there is no curb along the roadway, then the buffer should be wider.⁵

Because pedestrians have a wide range of physical and cognitive abilities, facilities should be designed to accommodate the needs of people of all ages and abilities. For example, children may be more mobile but lack the cognitive ability to understand the danger from nearby traffic. Conversely, older adults may understand the need to separate themselves from vehicular traffic but might need additional time to cross a street, or places to rest as they walk. For this reason, the pedestrian guidance in this document should be a starting point for considering the optimal facility design for pedestrians. Planners and engineers should also consult the **Americans with Disabilities Act Guidelines (ADAG)** and the US Access Board's **Public Right-of-Way Accessibility Guidelines (PROWAG)** to ensure that public pedestrian facilities afford all users the same level of convenience, connection, and safety.

⁵Guide for the planning, design, and operation of Pedestrian Facilities. (2021). . American Association of State Highway and Transportation Officials.



Source: Gresham Smith

Figure 30. Example of Rural Pedestrian Facility



Source: Gresham Smith

Figure 31. Example of Suburban/Urban Pedestrian Facility

Additional Design Considerations

In addition to bicycle and pedestrian facility selection and design, there are several additional design considerations that have a significant impact on walking and bicycling. Chief among these are intersection/crossing design, rumble strips, and access controlled corridors. Each of these issues was highlighted during the statewide planning process by stakeholders and the public.

Intersection/Crossing Design

Pedestrian and bicycle safety, comfort, and convenience is strongly affected by intersection and crossing design, especially on higher volume, higher speed multilane roads. In 2022, the Federal Highway Administration (FHWA) reported that between 2015 and 2019, 39% of all fatal pedestrian crashes and 57% of all fatal bicycle crashes occurred at intersections. The FHWA, the American Association of State Highway and Transportation Officials (AASHTO), the National Association of City Transportation Officials (NACTO), and the Institute for Transportation Engineers (ITE) have all taken leadership roles by introducing new design guidance on improving intersection and street crossing conditions for pedestrian and bicyclists. Taken together, the guidance focuses on:

- Lowering vehicle speeds;
- Reducing crossing distances; and
- Improving sight distances.

As with pedestrian and bicycle facilities, there is a great deal of flexibility inherent in the many strategies and tools to address vehicle speeds, crossing distances, and sight distances. Moreover, the strategies and tools often complement one another and provide benefits also for motorists and transit riders.

Rumble Strips

Rumble strips are a safety countermeasure present on many roadways throughout Alabama and the nation. Rumble strips are grooved patterns in the shoulder that are designed to alert drivers if they drift off the roadway, by creating noise and vibration when the vehicle wheel meets the rumble strip. While rumble strips have proven to be an effective safety countermeasure for motorists, especially on limited access highways and rural highways, they are difficult and sometimes dangerous for bicyclists. Rumble strips can damage a bicycle or cause the bicyclist to lose control. Some bicyclists avoid rumble strips and ride in the general travel lane in high speed or high volume conditions, creating an additional safety hazard.

Recognizing the important safety benefits of rumble strips for motorists, FHWA and AASHTO also outline several measures to ensure rumble strip policies support bicyclists. The guidance is as follows:

- Rumble strips are not recommended on shoulders used by bicyclists unless there is a minimum clear path of four feet from the rumble strip to the outside edge of the paved shoulder or five feet to the adjacent curb, guardrail, or other obstacle;
- Periodic gaps in rumble strips of a minimum of 12 feet should be provided every 40 to 60 feet to allow bicyclists to move across them as needed; and
- Rumble strips should be designed – length, width, spacing, and depth – to better accommodate bicycles.⁶

Going forward, ALDOT Standard Drawings will serve as the primary reference for the design of rumble strips that accommodate bicyclists without compromising the effectiveness of the safety countermeasure.

Access Controlled Corridors

Access controlled highways can create barriers for pedestrian and bicycle travel through and across transportation corridors. These highway barriers are often relatively short in distance, yet play important roles in overall pedestrian and bicycle network connectivity. In some instances, an access controlled highway is the only reasonable route, for example, to cross a river, and in other cases, it may be a preferred route, for example, to avoid steep topography. Additionally, if not designed with pedestrians and bicyclists in mind, intersecting road underpasses or overpasses can create unsafe travel conditions.

To support walking and bicycling in access controlled transportation corridors, state, regional, and local agencies should partner to identify alternate on-road or off-road routes and plan to accommodate pedestrians and bicyclists along intersecting roads. Specific circumstances may also call for constructing parallel facilities (bridges, shared use paths, and walkways) either immediately adjacent to or within the right-of-way of an access controlled highway. When parallel facilities are added, design considerations include:

- Physical separation, including barriers, between the pedestrian and bikeway facility and highway;
- Grade separated crossings of intersecting highways; and
- Routing around interchanges.

⁶<https://highways.dot.gov/safety/rwd/keep-vehicles-road/rumble-strips/accommodating-all-users>

Coordination

Collaboration between ALDOT and other agencies and partner organizations, such as MPOs, RPOs, and the Project Advisory Committee (PAC), is important to reach the goals suggested by this plan.

Local Projects and Education

ALDOT's expertise, experience, and resources can be valuable for MPOs, RPOs, and local governments seeking to advance bicycle and pedestrian infrastructure and safety. ALDOT documents, such as this plan, are sources of design guidance, safety considerations, and potential locations for biking and walking facilities. Additionally, ALDOT can be a valuable partner for public safety initiatives. The resources of a statewide agency can augment public safety education campaigns hosted on local and regional levels.

Facility Inventory

Conversely, local and regional government organizations can assist ALDOT with its comprehensive bicycle and pedestrian facility inventory. The proposed inventory will include sidewalks, bike lanes, shared use paths, greenways, trails, and other forms of infrastructure. MPOs, RPOs, and organizations which have been involved in trail efforts in the past, such as ADECA, bring valuable knowledge of existing and future local bicycle and pedestrian facilities. Their expertise can ensure that the database facilitated by ALDOT is complete and stays up-to-date.

Quarterly PAC Meetings

This plan suggests that ALDOT and the PAC continue meeting quarterly to discuss bicycle and pedestrian needs, trends, planned projects, local initiatives, training opportunities, best practices, latest design guidance, and other relevant topics. These meetings may also be used to discuss progress and outstanding needs for the comprehensive bicycle and pedestrian facility inventory. Maintaining a regular meeting schedule will ensure that bicycle and pedestrian needs and the suggestions offered in this plan remain at the forefront.



Source: Gresham Smith

Appendix A: List of Acronyms

3R: Resurfacing, Restoration, and Rehabilitation	NO_x: Nitrogen Oxides
AARP: American Association of Retired Persons	NRSS: National Roadway Safety Strategy
AASHTO: American Association of State Highway and Transportation Officials	NSBP: National Scenic Byways Program
ACA: Adventure Cycling Association	PAC: Project Advisory Committee
ADA: Americans with Disabilities Act	PM_{2.5}: Particulate Matter
ADAG: Americans with Disabilities Act Guidelines	PROWAG: Public Right of Way Accessibility Guidelines
ADECA: Alabama Department of Economic and Community Affairs	PRSI: Pedestrian Road Safety Initiative
AlaBike: Alabama Bicycle Coalition	PSCi: Proven Safety Countermeasures initiative
ALDOT: Alabama Department of Transportation	RAISE: Rebuilding American Infrastructure with Sustainability and Equity
ALEA: Alabama Law Enforcement Agency	RCN: Reconnecting Communities and Neighborhoods
ATIIP: Active Transportation Infrastructure Investment Program	RPO: Regional Planning Organization
BIL: Bipartisan Infrastructure Law	SAFETEA-LU: Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
CDC: Centers for Disease Control and Prevention	SCORP: Statewide Comprehensive Outdoor Recreation Plan
CMAQ: Congestion Mitigation and Air Quality Improvement	SHSP: Strategic Highway Safety Plan
CO: Carbon Monoxide	SO₂: Sulfur Dioxide
CRS: Carbon Reduction Strategy	SMART: Strengthening Mobility and Revolutionizing Transportation
CVSP: Commercial Vehicle Safety Plan	SRTS: Safe Routes to School
FAST: Fixing America's Surface Transportation	SS4A: Safe Streets for All
FHWA: Federal Highway Administration	STBG: Surface Transportation Block Grant
FLTTP: Federal Lands and Tribal Transportation Programs	STEP: Safe Transportation for Every Pedestrian
GDOT: Georgia Department of Transportation	STIP: Statewide Transportation Improvement Program
GFO: Guideline for Operation	STP: Surface Transportation Program
HSIP: Highway Safety Improvement Program	SWTP: Statewide Transportation Plan
HSP: Highway Safety Plan	TA Set-Aside: Transportation Alternatives Set-Aside Program
IJA: Infrastructure Investment and Jobs Act	TAP: Transportation Alternatives Program
ITE: Institute of Transportation Engineers	TDOT: Tennessee Department of Transportation
LaDOTD: Louisiana Department of Transportation and Development	THUD: Transportation, Housing, and Urban Development
MAP-21: Moving Ahead for Progress in the 21 st Century	TIP: Transportation Improvement Programs
MDOT: Mississippi Department of Transportation	TZD: Toward Zero Deaths
MMAG: Multimodal Access Grants	USBRs: United States Bicycle Route System
MPH: Miles per Hour	USDOT: United States Department of Transportation
MPO: Metropolitan Planning Organization	VPD: Vehicles per Day
MUTCD: Manual on Uniform Traffic Control Devices	VRU: Vulnerable Road User
NACTO: National Association of City Transportation Officials	WMA: Wildlife Management Area
NHPP: National Highway Performance Program	
NHTSA: National Highway Traffic Safety Administration	

Appendix B: Bicycle and Pedestrian Funding Opportunities

Bicycle and Pedestrian Funding Opportunities: US Department of Transportation, Federal Transit, and Federal Highway

Activity	Federal Highway Administration														Federal Lands			Loan	OST Grant				OST Loan			FTA			NHTSA	
	ATIIP	BRI	CRP	CMAQ	HSIP	RHCP	NHPP	PROT	STBG	TAP	RTP	SRTS	PLAN	NSBP	FLTTP	TTP	TTPSF	SIBs	INFRA	RAISE	SS4A	Thrive	RRIF	TIFIA	FTA	AoPP	TOD	402	405	
Access enhancements to public transportation (benches, bus pads, lighting, shade)	\$		\$	\$			\$	\$	\$	\$				\$	\$	\$		\$	\$	\$	~\$		~\$	~\$	\$					
Americans with Disabilities Act (ADA)/504 Self Evaluation / Transition Plan development and updates	\$		\$						\$	\$	\$		\$		\$	\$					\$	TA				\$	~\$			
ADA compliance retrofits; removal of accessibility barriers	\$	\$	\$				\$	\$	\$	\$	\$		\$	\$	\$		\$	\$	\$	~\$		~\$	~\$	\$						
Bicycle plans	\$		\$					\$	\$	\$		\$		\$	\$	\$				\$					\$	\$	~\$			
Bicycle helmets (project or training related)	~\$				\$				\$	\$\$SRTS		\$			\$													\$		
Bicycle helmets (safety promotion)	~\$				\$				\$	\$\$SRTS		\$			\$															
Bicycle lanes on road	\$		\$	\$	\$	\$	\$	\$	\$	\$		\$		\$	\$	\$	\$	\$	~\$	~\$	\$		~\$	~\$	\$					
Bicycle parking (see Bicycle Parking Solutions)	\$		\$	\$			\$		\$	\$	\$		\$	\$	\$		\$		~\$	~\$	~\$		~\$	\$	\$					
Bicycle racks on transit	\$		\$	\$					\$	\$				\$	\$		\$			~\$	~\$			~\$	\$					
Bicycle repair station (air pump, simple tools, electric outlets)	\$		\$						\$	\$				\$	\$		~\$		~\$	~\$		~\$	~\$	\$						
Bicycle share (capital and equipment including charging stations and outlets; not operations)	\$		\$	\$			\$		\$	\$				\$	\$		\$		~\$	~\$	~\$		~\$	~\$	\$					
Bicycle storage or service centers (e.g. at transit hubs) including charging stations and outlets; not operations	\$		\$	\$					\$	\$				\$	\$		\$			~\$	~\$		~\$	\$	\$					
Bridges / overcrossings for pedestrians and/or bicyclists	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$					
Bus stop enhancements (ADA compliance, benches, lighting, shelters, shade)	\$		\$	\$			\$	\$	\$	\$			\$	\$	\$		\$		\$	\$	~\$		~\$	~\$	\$					
Charging stations for electric bicycles and scooters	\$		\$	\$					\$	\$	\$			\$	\$		\$						~\$	~\$						
Coordinator positions: State/local (CMAQ/STBG limited)				\$					\$	\$\$SRTS		\$			\$						~\$									
Community Capacity Building (develop organizational skills and processes)	~\$											\$			\$						~\$	TA				~\$	~\$			
Crosswalks for pedestrians, pedestrian refuge islands (new or retrofit)	\$		\$	~\$	\$	\$	\$	\$	\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$					
Curb ramps	\$	\$	\$	~\$	\$	\$	\$	\$	\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$					
Counting equipment	\$				\$	\$	\$		\$	\$	\$	\$		\$	\$	\$		\$		~\$			~\$	\$						
Data collection and monitoring for pedestrians and/or bicyclists	\$		\$		\$	\$	\$		\$	\$	\$	\$		\$	\$	\$	~\$	\$	\$	\$			~\$	\$	~\$	~\$				
Demonstration projects (temporary pedestrian and bicycle projects, sometimes referred to as quick-build projects)	\$				\$	\$			\$	\$	\$			\$	\$	\$	\$			\$										
Emergency and evacuation routes for pedestrians and/or bicyclists	\$		\$				\$	\$	\$	\$	\$			\$	\$		\$		\$	\$	~\$		\$	\$	~\$	~\$				
Encouragement and education activities related to safe access for bicyclists and pedestrians	~\$		~\$	\$	\$				\$	\$\$SRTS	\$	\$			\$						~\$									
"Equipment: specialized equipment for maintaining pedestrian and bicycle facilities (sweepers, miniplows)."	~\$		~\$	~\$					\$	\$	\$			\$	\$	\$	\$			~\$										
Historic preservation (pedestrian, bicycle, transit facilities)	~\$		\$						\$	\$			\$	\$	\$		\$		~\$	~\$		~\$	~\$	\$						

Key: \$ = Activity likely eligible. Restrictions may apply, see program notes and guidance. ~\$ = Eligible, but not competitive unless part of a larger project.

Activity	Federal Highway Administration														Federal Lands			Loan	OST Grant				OST Loan		FTA			NHTSA			
	ATIIP	BRI	CRP	CMAQ	HSIP	RHCP	NHPP	PROT	STBG	TAP	RTP	SRTS	PLAN	NSBP	FLTTP	TTP	TTPSF	SIBs	INFRA	RAISE	SS4A	Thrive	RRIF	TIFIA	FTA	AoPP	TOD	402	405		
"Landscaping, streetscaping (pedestrian/bicycle route; transit access); related amenities (benches, lighting, shade, trees, water); usually part of larger project"	\$		\$				~\$	\$	\$	\$					\$	\$		\$	~\$	~\$	~\$		~\$	~\$	\$						
Lighting (pedestrian and bicyclist scale with pedestrian/bicyclist project)	\$		\$	~\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$						
Maps (for pedestrians and/or bicyclists) (see Idea Book)	\$		\$	\$					\$	\$		\$	\$		\$						\$				\$						
"Micromobility projects, including scootershare (capital and equipment, including vehicles, charging stations and outlets; not operations)"	\$		\$	\$					\$	\$					\$	\$		\$		\$	~\$		~\$	~\$							
Paved shoulders for pedestrian and/or bicyclist use	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		\$		\$	\$	\$	\$	\$	~\$	\$	\$		~\$	~\$	~\$						
Pedestrian plans	\$		\$					\$	\$	\$		\$		\$	\$	\$			~\$	\$	\$				\$	\$	\$				
Public education and awareness programs to inform motorists and nonmotorized road users on nonmotorized road user safety	~\$				\$				\$	\$SRTS		\$			\$						\$							\$	\$		
Public involvement to inform decisionmaking	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	5	~\$	\$	\$	\$	\$	\$	\$	\$	TA	\$	\$	\$	\$	\$	\$	\$	\$	
Rail at-grade crossings	\$		\$		\$	\$	\$	\$	\$	\$	\$				\$	\$	\$	\$	\$	\$	~\$		\$	\$	\$						
Recreational trails	\$							\$	\$	\$	\$			\$	\$	\$		\$		\$	~\$		~\$								
Resilience improvements to pedestrian and bicycle facilities or to protect or enhance use.	\$	~\$	~\$	~\$			\$	\$	\$	\$	\$	note		\$	\$	\$		\$	\$	\$	~\$		~\$	~\$							
Resurfacing, restoration, and rehabilitation for pedestrian and bicycle facilities, including preventive maintenance and bridge retrofits	\$	~\$	\$	~\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$		\$	\$	\$	~\$				~\$						
Road Diets (pedestrian and bicycle portions)	\$		\$	\$	\$		\$	\$	\$	\$				\$	\$	\$	\$	\$	\$	\$		~\$	\$	~\$							
Road Safety Assessment for pedestrians and bicyclists	\$				\$	\$			\$	\$		\$			\$	\$	\$	\$			\$	TA		~\$		~\$					
Safety education and awareness activities and programs to inform pedestrians, bicyclists, and motorists on ped/bike traffic safety laws	~\$				\$				\$	\$SRTS		\$	\$		\$			\$			\$					~\$	~\$	\$	\$		
Safety education positions					\$				\$SRTS	\$SRTS		\$			\$						\$							\$			
Safety enforcement (including police patrols)					\$				\$SRTS	\$SRTS		\$			\$						\$							\$	\$		
Safety program technical assessment (for peds/bicyclists)	~\$				\$				\$SRTS	\$SRTS		\$	\$		\$	\$					\$	TA						\$			
Separated bicycle lanes	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		\$		\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$						
Shared use paths, transportation trails, rail-trails, rails-with-trails	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$						
Sidewalks (new, rehabilitation, or retrofit)	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$						
Signs, signals, signal improvements (including accessible pedestrian signals). See Cross-cutting notes.	\$		\$	\$	\$	\$	\$	\$	\$	\$				\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$						
Signing for pedestrian or bicycle routes	\$		\$	\$	\$		\$	\$	\$	\$				\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$						
"Spot improvement programs (programs of small projects to enhance pedestrian and bicycle use or correct problems)"	\$		\$	~\$	\$	\$			\$	\$	\$			\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$						
Stormwater mitigation related to pedestrian and bicycle project impacts	\$				\$	\$	\$	\$	\$	\$	\$	note		\$	\$	\$	\$	\$	\$	\$	~\$		~\$	~\$	\$	note	note				
Technical Assistance (see Cross-cutting notes)	~\$			~\$	\$				\$	\$	\$	note			\$	\$					~\$	TA									

Key: \$ = Activity likely eligible. Restrictions may apply, see program notes and guidance. ~\$ = Eligible, but not competitive unless part of a larger project.

Activity	Federal Highway Administration														Federal Lands			Loan	OST Grant				OST Loan		FTA			NHTSA		
	ATIIP	BRI	CRP	CMAQ	HSIP	RHCP	NHPP	PROT	STBG	TAP	RTP	SRTS	PLAN	NSBP	FLTTP	TTP	TTPSF	SIBs	INFRA	RAISE	SS4A	Thrive	RRIF	TIFIA	FTA	AoPP	TOD	402	405	
Traffic calming	\$		\$		\$		\$	\$	\$	\$		\$			\$	\$	\$	\$	\$	\$	\$		~\$	~\$	\$					
Trail bridges	\$		\$	~\$	\$	\$	\$	\$	\$	\$	\$				\$	\$	\$	\$	\$	\$	~\$		~\$	\$						
Trail construction and maintenance equipment; specialized equipment for trail safety education and trail assessments	\$		~\$						\$	\$	\$				~\$	~\$	~\$				~\$		~\$	~\$						
Trail/highway crossings and intersections	\$	\$	\$	~\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$	\$	\$	\$	\$	\$		~\$	~\$						
Trailside and trailhead facilities (restrooms, water, electric charging, but not general park amenities)	\$		~\$						\$	\$	\$			\$	\$	\$		\$		~\$			~\$	~\$						
Training related to program goals	~\$			\$	\$				\$	\$	\$	\$			\$					\$	TA					~\$	~\$	\$		
Training for law enforcement on pedestrian and bicyclist safety laws	~\$			~\$	\$				\$SRTS	\$SRTS					\$					\$						~\$	~\$	\$	\$	
Tunnels / underpasses for pedestrians and/or bicyclists	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$				\$	\$	\$	\$	\$	\$	\$		\$	\$	\$					
Vulnerable Road User Safety Assessment (23 U.S.C. 148(l))	\$				\$				\$	\$		\$			\$	\$	\$					TA				~\$	~\$			

Key: \$ = Activity likely eligible. Restrictions may apply, see program notes and guidance. ~\$ = Eligible, but not competitive unless part of a larger project.

Source: https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.pdf

Cross-cutting Notes:

This table indicates likely eligibility for pedestrian, bicycle, and micromobility activities and projects under U.S. Department of Transportation surface transportation funding programs. Activities and projects must meet program eligibility requirements. See notes and links to program information below. Although the primary focus of this table is stand-alone activities and projects, programs can also fund pedestrian and bicycle facilities as part of larger projects. Project sponsors are encouraged to consider Complete Streets and Networks that routinely integrate the safety, accessibility, equity, and convenience of walking and bicycling into surface transportation projects. The Federal-aid eligibility of the pedestrian and bicycle elements are considered under the eligibility criteria applicable to the larger highway project. Pedestrian and bicycle activities also may be characterized as environmental mitigation for larger highway projects, especially in response to impacts to a Section 4(f) property or work zone safety, mobility, and accessibility impacts on bicyclists and pedestrians.

- See FHWA’s Policy on Using Bipartisan Infrastructure Law Resources to Build a Better America.
- See FHWA Bicycle and Pedestrian Planning, Program, and Project Development (Guidance), Publications, Pedestrian and Bicyclist Safety, and Bicycle transportation and pedestrian walkways statute at 23 U.S.C. 217.
- Bicycle Project Purpose: 23 U.S.C. 217(i) requires that bicycle facilities “be principally for transportation, rather than recreation, purposes”. However, 23 U.S.C. 133(b)(7) and 133(h) authorize recreational trails under STBG and TAP; therefore, 23 U.S.C. 217(i) does not apply to trail projects (including for bicycle use) using STBG or TAP funds. Section 217(i) applies to bicycle facilities other than trail-related projects, and section 217(i) applies to bicycle facilities using other programs (NHPP, HSIP, CMAQ). The transportation requirement under section 217(i) only applies to bicycle projects, not to any other trail use or transportation mode.
- Demonstration projects may include temporary installations to determine if a longer-term project is feasible.
- Signs, signals, signal improvements includes ensuring accessibility for persons with disabilities. See Accessible Pedestrian Signals. See also Proven Safety Countermeasures, such as Bicycle Lanes, Crosswalk Visibility Enhancements, Leading Pedestrian Interval signals, Lighting, Medians and Pedestrian Refuge Islands, Pedestrian Hybrid Beacons, Rectangular Rapid Flashing Beacons, and Walkways.
- Technical Assistance includes assisting local agencies and other potential grantees to identify pedestrian and bicycle safety and infrastructure issues, and to help them develop and implement successful projects. Technical assistance may be authorized under a program or sometimes as a limited portion of a program. See FHWA links to Technical Assistance and Local Support.
- The DOT Navigator is a resource to help communities understand the best ways to apply for grants, and to plan for and deliver transformative infrastructure projects and services.
- Aspects of DOT initiatives may be eligible as individual projects. Activities above may benefit safe, comfortable, multimodal networks; environmental justice; and equity.
- Occasional DOT or agency incentive grants may be available for specific research or technical assistance purposes.
- Operation costs: In general, ongoing and routine operation costs (such as ongoing costs for bike sharing or scooter sharing) are not eligible unless specified within program legislation. See links to program guidance for more information.

Non-Federal Matching: Most Federal transportation financial assistance programs require a non-Federal match, which means a portion of the project cost will not be reimbursed or paid with Federal funds (unless otherwise authorized by Federal statute). This amount, typically stated as a percentage of the total project cost, is referred to as the non-Federal share. The non-Federal share requirement may be provided as cash in the form of direct contributions from State budgets, financial contributions from municipal or county governments, or funding from private sector partners or stakeholders; or third party in-kind, in the form of non-cash contributions such as donated services, property, or equipment. A few programs have provisions to allow the use of other Federal funds to satisfy the non-Federal share. Resources exist to support applicants in identifying matching funds. The DOT Navigator includes a guide to understanding non-Federal match requirements. FHWA released a memorandum on non-Federal matching requirements in 2019. The Coordinating Council on Access and Mobility (CCAM) has a Federal Fund Braiding Guide to provide information on matching funds.

Program-specific Notes:

DOT funding programs have specific requirements that activities and projects must meet. Eligibility must be determined on a case-by-case basis. See links to program guidance for more information.

Abbreviations

ADA/504: Americans with Disabilities Act of 1990 / Section 504 of the Rehabilitation Act of 1973

AoPP: Areas of Persistent Poverty Program

ATIIP: Active Transportation Infrastructure Investment Program [web link under development]

BIL: Bipartisan Infrastructure Law (Infrastructure Investment and Jobs Act (Pub. L. 117-58))

BRI: Bridge Programs, including: BFP: Bridge Formula Program; BIP: Bridge Investment Program; BRR: Bridge Replacement and Rehabilitation Program

CMAQ: Congestion Mitigation and Air Quality Improvement Program

CRP: Carbon Reduction Program

FLTTP: Federal Lands and Tribal Transportation Programs: Federal Lands Access Program, Federal Lands Transportation Program, Tribal Transportation Program, Federal Lands Planning Program and related programs for Federal and Tribal lands such as the Nationally Significant Federal Lands and Tribal Projects program

FTA: Federal Transit Administration Capital Funds

HSIP: Highway Safety Improvement Program

IJA: Infrastructure Investment and Jobs Act (Pub. L. 117-58), also known as the Bipartisan Infrastructure Law

INFRA: Infrastructure for Rebuilding America Discretionary Grant Program

NHPP: National Highway Performance Program

NHTSA 402: National Highway Traffic Safety Administration State and Community Highway Safety Grant Program

NHTSA 405(g): National Highway Traffic Safety Administration National Priority Safety Programs (Nonmotorized safety)

NSBP: National Scenic Byways Program PLAN: Statewide Planning and Research (SPR) or Metropolitan Planning funds (FHWA and/or FTA funding)

PLAN: Statewide Planning and Research (SPR) or Metropolitan Planning funds (FHWA and/or FTA funding)

PROTECT: Promoting Resilient Operations for Transformative, Efficient, and Cost Saving Transportation

RAISE: Rebuilding American Infrastructure with Sustainability and Equity

RHCP: Railway-Highway Crossings (Section 130) Program

RRIF: Railroad Rehabilitation and Improvement Financing (loans)

RTP: Recreational Trails Program

SIBs: State Infrastructure Banks

SRTS: Safe Routes to School Program (and related activities)

SS4A: Safe Streets and Roads for All

STBG: Surface Transportation Block Grant Program

TAP: Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program, Transportation Enhancements)

Thrive: Thriving Communities Initiative (TA: Technical Assistance)

TIFIA: Transportation Infrastructure Finance and Innovation Act (loans)

TOD: Transit-Oriented Development

TTP: Tribal Transportation Program

TTPSF: Tribal Transportation Program Safety Fund

Appendix C: Demand and Suitability Analyses Data Sources

Population & Poverty – US Census Bureau. American Community Survey 2018-2022 ACS 5-Year Estimates – Block Group Data. www.data.census.gov

Employment Data – U.S. Census Bureau/ Longitudinal Employer-Household Dynamics. <https://onthemap.ces.census.gov/>

National Transit Map Routes – U.S. Department of Transportation/Federal Transit Administration. <https://geodata.bts.gov/datasets/usdot::national-transit-map-routes/explore>

Colleges and Universities – Alabama Geographic Information Office. <https://data-algeohub.opendata.arcgis.com/datasets/9dd974f7b0194d29946ac822b6bef7f3/explore>

Public Schools – Alabama Geographic Information Office. https://data-algeohub.opendata.arcgis.com/datasets/30683be71fe941f8a9c0ed7b94210374_0/explore?location=32.550947%2C-86.703272%2C7.05

Private Schools – Alabama Geographic Information Office. https://data-algeohub.opendata.arcgis.com/datasets/7150890400554a46a59cea437fb1c478_0/explore

Scenic Byways – Provided by ALDOT.

Wildlife Management Areas – Alabama Department of Conservation and Natural Resources. <https://conservationgis.alabama.gov/dcnr/>

National Forest Lands & Wild/Scenic Rivers – U.S. Department of Agriculture. <https://data.fs.usda.gov/geodata/edw/datasets.php?dsetCategory=boundaries>

State Parks – US Department of Agriculture, US Forest Service. Accessed via data from the FSGeodata Clearinghouse. <http://data.fs.usda.gov/geodata/>

State and National Historic Sites –Alabama Historical Commission. Alabama Historic Preservation GIS Portal (arcgis.com)

National Park Sites – National Park Service. <https://www.nps.gov/subjects/gisandmapping/tools-and-data.htm>

Bicycle & Pedestrian Crash Data spanning 2019 through 2023 – Provided by ALDOT.

Average daily traffic, percentage of heavy trucks, shoulder, and number of lanes data are courtesy of ALDOT.

Appendix D: Summary of Online Survey Results

The Alabama Statewide Bicycle and Pedestrian Plan's public engagement page includes an interactive map. The map shows the entire state of Alabama and allows individuals to leave comments linked to specific locations on the map. This exercise provides an opportunity for individuals to point out certain locations or areas that they feel are relevant to the state's bicycle and pedestrian plan update. There are three options for the type of map entry an individual can submit, each with its own prompt for comments.

- **Key destinations:** Explain why this location attracts bicycle and pedestrian activity.
- **Desired improvements:** What sort of bicycle or pedestrian improvements would you like to see at this location?
- **General comments:** If there is any other transportation-related feedback you would like to provide ALDOT and the project team, please do so below.

Anyone who wants to leave a comment selects the type of entry they want, places it on the map in the relevant location, adds their comment, and submits it. There is also space for an individual to enter their email address, though this is not required. The map was advertised on the ALDOT's public involvement page, at an ALDOT safety roundtable meeting, and through stakeholder networks.

A total of 463 map entries were received, 431 of which included actual text with a comment. Of the 339 map entries where an email address was provided, there were only 97 unique addresses. This suggests several individuals submitted more than one entry. Seven individuals were noted as submitting 10 or more map entries summing up to 157 entries, nearly half (46%) of all those that included an email address. Comment locations represented 63 different cities, with the greatest number of comments based in Tuscaloosa, Birmingham, Gadsden, Dothan, and Montgomery.

A small number of comments received for Key Destinations and over three-quarters of those for General Comments were essentially suggestions for improvements. Therefore, they were counted as comments within the category they were placed as well as in the tallied total for Desired Improvements. Three comments were excluded from this summary because it was clear they were the first part or a continuation of another comment by the same commenter submitted prior to completing what they had to say. In these instances, the two related comments were combined for complete details and the duplicate was removed. Some individuals created entries on the map but did not include any descriptive text in the space for comments. The themes summarized in the following section are based on those map entries with comments.

Of the 463 map entries for this project, there were 25 entries (all with comments) for General Comments, 103 entries (92 with comments) for Key Destinations, and 335 entries (314 with comments) for Desired Improvements.

General Comments

Among entries for General Comments, 76% were framed as desired improvements, either by pointing out an issue needing to be addressed by an improvement or more specifically stating the improvement. The substance of these comments is included in the summary below of categories and themes for Desired Improvements. Of the remaining General Comments entries, four were related to law, policy, and enforcement, and two were related to driver safety.

Key Destinations

The most common destinations mentioned were parks and recreational areas. The next most common

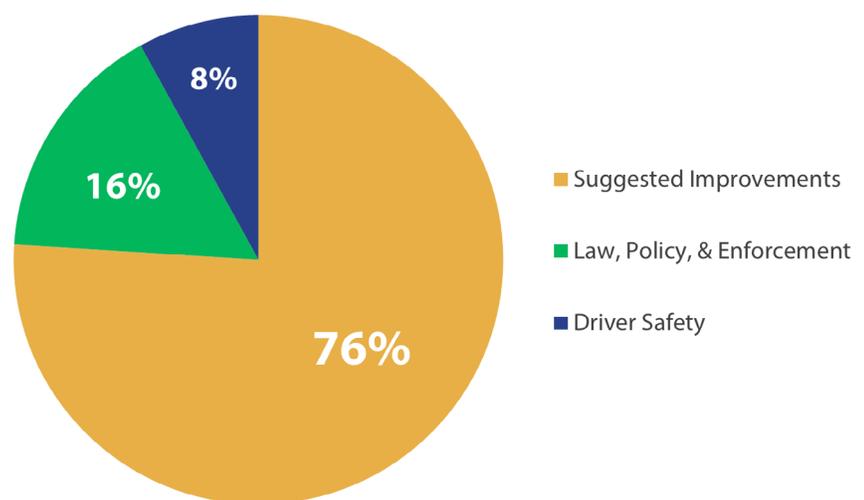


Figure 01. General Comment Themes

destinations were related to areas with shopping, restaurants, arts, and entertainment. In all, comments for Key Destinations were sorted into nine groups. The number of comments within each group is shown in the chart below. Civic locations included places such as a fire station, police station, library, or medical facility. Walkable and bikeable areas included neighborhoods and corridors. All but one of the comments referencing churches came from a single commenter noting several churches along a corridor. As with General Comments, one of these groups represented comments that more closely resembled Desired Improvements, though they made up a much smaller percentage (7.6%) of total Key Destination comments compared to General Comments.

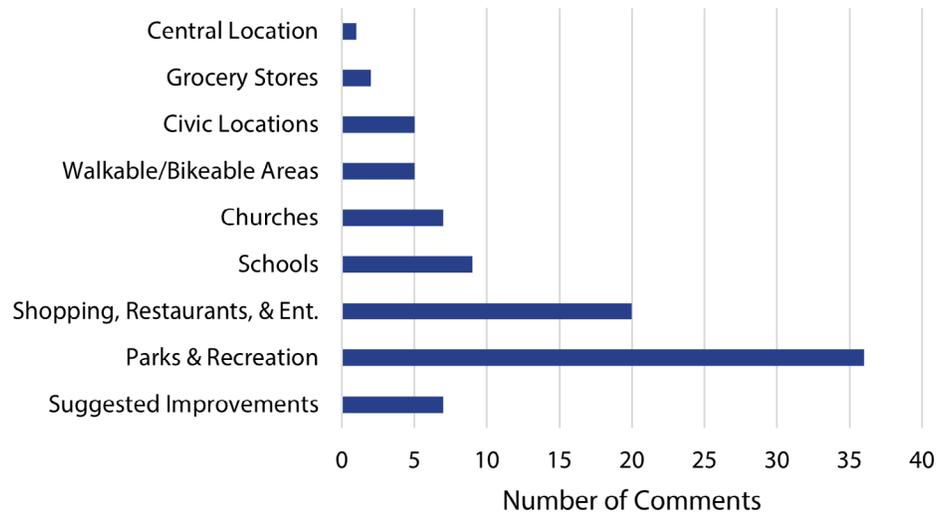


Figure 02. Key Destinations

Desired Improvements

When including the comments with suggested improvements from Key Destinations and General Comments, a total of 339 comments were analyzed for Desired Improvements. Close to three-quarters of the comments specifically referenced bicycle and pedestrian infrastructure, bike lanes, or sidewalks, showing there is strong support for new bicycle and pedestrian infrastructure. Other major themes across comments included improving connectivity, creating safer crossings, adding supportive infrastructure (e.g., signals, signage, barriers between vehicles and bicycles and pedestrians), and improving conditions of existing infrastructure (e.g. repaving, clearing gravel, moving rumble strips off road shoulder). Specifically related to bicycle infrastructure, a small number of comments noted locations where vehicles are regularly parked in the bike lane and create dangerous situations for bicyclists needing to weave in and out of traffic. A similar number of comments pointed out areas that are heavily car dependent and where there is limited to no safe access to community facilities for people walking or biking.

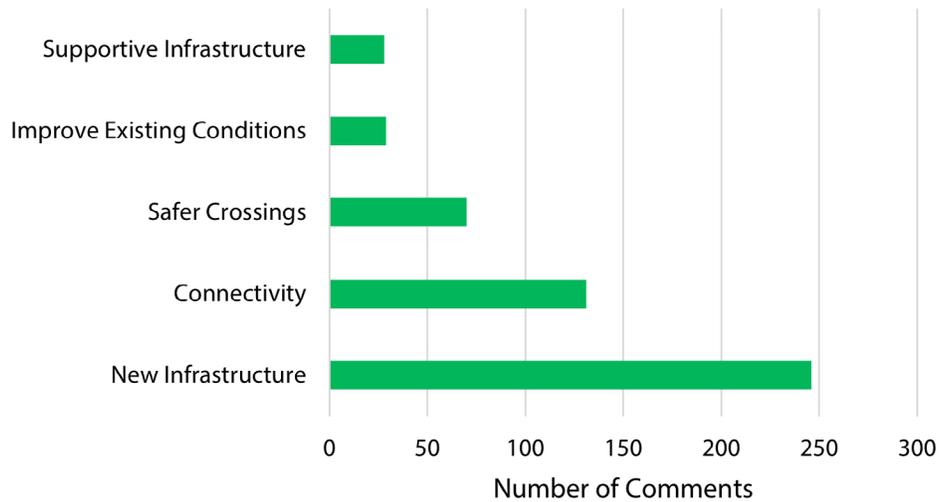


Figure 03. Desired Improvements

