

Chapter Three

Existing Conditions

Overview

This chapter provides an overview of the major components of the bicycling and walking environments of the ARTS region. The data required to assess existing conditions was collected primarily by gathering existing regional geographic information systems (GIS) data, requesting input from the region's jurisdictions, conducting field work, and soliciting public input. Provided data was synthesized into regional databases, mapped with GIS, and analyzed. Additional analysis of existing conditions is provided in Chapters 4 and 5 which summarize the quantitative and qualitative needs of bicyclists and pedestrians in the region.

Figures 3-1 and 3-2 depict the existing bicycling and walking conditions in ARTS.

Data Inventory and Background Review

Local agencies were sent a request to provide data related to the bicycling and walking environment of the entire ARTS region. Each jurisdiction was asked to provide specific data related to the following broad categories of existing conditions:

- Transportation (such as streets, bus stops, sidewalks, and traffic signal locations)
- Land use and ownership (such as parcel boundaries, and zoning designations)
- Points of interest (such as schools, parks, airports, and retail centers)
- Physical geography (such as wetlands and topography)
- Administrative and jurisdictional boundaries (such as city and county borders)
- Additionally, the data inventory was supplemented by a review of all relevant

plans or planning documents related to bicycle and pedestrian activity in the region. Appendix A provides the full review of documents and other information obtained from local governments across the region.

Field Investigation

The project team identified priority corridors and locations for field review, totaling more than 100 miles of roadway. Field work allows for review of corridor characteristics that may present opportunities or constraints for bicycle and pedestrian facilities, such as pavement width, shoulders, right of way, and driveways, to be inventoried and mapped. Areas targeted for field investigation were corridors and locations with:

- high bicycle and/or pedestrian traffic,
- key connectors between areas of high bicycle and/or pedestrian traffic,
- areas of high bicycle and/or pedestrian collisions,
- and primary corridors for accessing destinations, such as commercial land uses, transit centers, parks, trails, and schools or colleges.

At the project kick-off meeting, the steering committee noted a strong interest in providing connectivity between Augusta, GA and Aiken, SC. The corridors and locations prioritized for field review addressed the need for establishing regional connectivity among the project's member cities and counties, as well as the need for localized connectivity in urban

Public Outreach

environments.

Extensive public outreach is essential to developing a regional bicycle and pedestrian

plan that addresses the needs of community members. For this report public input acquired during multiple public workshops, targeted focus groups, booths at community events, and via the project website was analyzed to identify issues and constraints to bicycling walking in the ARTS region. Chapter 5 summarizes the results of the public outreach process.

BFC and WFC Audits

Filling out the applications to receive the national designation as a Bicycle Friendly Community (BFC) or Walk Friendly Community (WFC) is an education in itself. The detailed questions of the applications allow communities to recognize their strengths and opportunities in each category of the five E's. Stakeholder interviews were used, in conjunction with the data collection methods already described, to complete the BFC and WFC applications for three ARTS communities. The applications provide a useful tool for understanding the communities' existing conditions for biking and walking.

Bicycle and Walk Friendly Community Assessment

Overview of Bicycle and Walk Friendly Community Designations

The Bicycle Friendly Community (BFC) and Walk Friendly Community (WFC) programs are two national initiatives intended to encourage cities and towns across the country to improve the bicycling and pedestrian environments in their community and to recognize communities who are successfully doing this. The programs provide communities with invaluable resources related to bicycle and pedestrian planning and also generate positive media attention at the national and local level for communities who earn a designation.

The BFC program is administered by the League of American Bicyclists, a national bicycling advocacy organization based in Washington, D.C. Since the program began, the League has received 490 applications and awarded 190 communities with "bicycle-friendly" status. In 2011, the Pedestrian and Bicycle Information Center, based in Chapel Hill, NC, announced the development of the WFC Program. There are currently 21 "walk-friendly" designated communities around the country (as of

November 2011). Table 3-1 lists BFC and WFC designated communities in Georgia and South Carolina.

Table 3-1. Designated communities near the ARTS region.¹

State	Bicycle Friendly Communities	Walk Friendly Communities
South Carolina	Bronze: Charleston, Columbia, Greenville, Spartanburg Silver: Hilton Head	None
Georgia	Bronze: Athens-Clarke County, Roswell, Tybee Island	Silver: Decatur

Both the WFC and BFC program use the five "E's" of bicycle and pedestrian planning as the framework for identifying successful biking and walking communities. The five "E's" are: Engineering, Encouragement, Education, Enforcement, and Evaluation. Each program has its own detailed questionnaire that a city or town must complete online in order to apply for recognition. Four levels of award designation are possible: Bronze, Silver, Gold, and Platinum. Both programs offer an Honorable Mention category, as well.

Currently, there are no BFC or WFC designated communities in the ARTS region. Opportunities to apply for designation are shown in Table 3-2.

Table 3-2. Review cycles and due dates for BFC and WFC programs.

Review Cycle	Bicycle Friendly Community Due Dates	Walk Friendly Community Due Dates
Spring Awards	February 17, 2012	January 19, 2012
Fall Awards	July 2012 ¹	June 15, 2012

¹ List of designated communities is current, as of January 2012.

² A specific application due date for July 2012 is not yet available, as of January 2012.

Achieving Bicycle and Walk Friendly Community Designations

A BFC is described as a community that "welcomes cyclists by providing safe accommodation for cycling and encouraging people to bike for transportation and recreation." In order to achieve Bronze level status as a BFC, a community is expected to show a strong commitment to bicycling, even if that commitment is in its early stages. Bronze communities have "room to grow" and show potential for more successes in bicycle friendliness, but important steps in the right direction are already being taken.

The League of American Bicyclists offers the following summary of characteristics that can be found in a Bronze level BFC:

- Engineering Community recently implemented a policy to engineer streets with the consideration of bicyclists and/or is beginning to develop a trail network. Facilities conform to the currently recognized safety standards.
- Education Community holds bicycle safety events, provides opportunities for bicycle education.
- Encouragement Community hosts a Bike to Work Day or community ride.
- Enforcement Officers are familiar with laws relating to bicyclists.
- Evaluation & Planning The community is familiar with and responsive to the needs of cyclists. A bicycle master plan or chapter in another document has been developed and approved. Bicycle mode share is above average for U.S. communities.⁴

To achieve a designation level higher than Bronze, significant advances within each of the five E's must occur. An honorable mention may be awarded to a community that shows its potential to fit the characterization of a Bronze community in the near future. In particular, a community that has not yet had time to realize the full impact of important recent successes would be a likely candidate for an honorable mention award.

3 Source: http://www.bikeleague.org/programs/bicyclefriendlyamerica/communities/bfc_about.php 4 Source: League of American Bicyclists, Scoring Guidelines for Local Reviewers, 2010.

While there is no clear benchmark that identifies communities within the four levels of BFC designation, Table 3-3 outlines the average bicycle mode share found among designated BFCs around the country.

Table 3-3. Average bicycle mode share among designated Bicycle Friendly Communities⁵

BFC Award Level	Average Bicycle Mode Share
Platinum	9.71%
Gold	5.20%
Silver	2.82%
Bronze	1.10%

Similarly, a WFC is described as "a city or town that has shown a commitment to improving walkability and pedestrian safety through comprehensive programs, plans and policies." A community seeking Bronze level status as a WFC should fit a characterization similar to that of a Bronze level BFC, though relevant to pedestrian programs and infrastructure.

Assessment of ARTS Communities

This Plan includes completed applications for the BFC and WFC programs for the ARTS communities of Columbia County, Augusta-Richmond County, and the City of Aiken. Copies of the blank BFC and WFC applications are located in Appendix C. By design, the process of filling-out the detailed questionnaires is an educational tool for communities seeking a national designation. Communities not only learn the variety of programmatic, policy, and infrastructure initiatives that contribute to becoming bicycle- and walk-friendly, but also learn the areas in which the community excels or needs improvement. Table 3-4 outlines strengths and opportunities for each of the three ARTS communities.

The infrastructure and non-infrastructure recommendations of the Plan, provided in Chapters 6 and 7 respectively, are based on the BFC and WFC assessments, as well as other analysis. Chapter 8 includes prioritized action steps and a timeline for ARTS communities to pursue the BFC and WFC designations.

6 Source: www.walkfriendly.org.

⁵ Source: League of American Bicyclists, staff report.



Table 3-4. Assessment of three BFC and WFC applications

ARTS Community	Bicycle Friendly Community Application Highlights	Walk Friendly Community Application Highlights
Augusta-Richm	ond County	
Successes	The Augusta Wheel Movement and local bicycle retailers are an asset to the Augusta-Richmond County bicycling community and are committed to advocacy. Georgia Bikes! is an invested partner in the community by way of a grant to Augusta Wheel Movement. Augusta-Richmond has multiple community groups who support bicycling. Recently constructed bicycling facilities in the County create an important starting point for growing the bikeway network. The Augusta Canal Trail and Riverwalk Trail provide important existing infrastructure and help to evidence demand for trails and greenways. High-profile athletic events are generating interest in physical activity and evidencing the economic development potential that bicycling	Augusta-Richmond County has a very high walking mode share. Street trees and landscape strips adjacent to curbs are supported and, at times, required by the municipal code. Design guidelines for sidewalks are specified in the municipal code. High-profile athletic events are generating interest in physical activity and evidencing the economic development potential that investment in "active lifestyle" image can bring.
Opportunities	Improvements are needed within all five E's.	Improvements are needed within all five E's.
	While the County has the necessary community infrastructure needed to generate a broad base of support for bicycling infrastructure and programs, many groups are not yet working together. Augusta-Richmond County has significant potential to garner private sector support for improvements.	The high mode share for walking in Augusta-Richmond County will benefit the County's WFC application. Identifying where pedestrian activity occurs and creating a targeted program to address pedestrian infrastructure needs in those areas should be a priority.

ARTS Community	Bicycle Friendly Community Application Highlights	Walk Friendly Community Application Highlights	
City of Aiken			
Successes	The Aiken Bicycle Club is an asset to the City of Aiken and recreational cycling is a relatively popular form of exercise in the area. Aiken's Public Safety Office ensures that all officers receive bicycle training and maintains a bike patrol program, which has participated in bicycle rodeos. A local chapter of Eat Smart Move More SC and Safe Routes to School are active programs in the community, and a board member of Palmetto Cycling Coalition also serves as an advocate in Aiken. A League Cycling Instructor lives in Aiken.	The City of Aiken has a base of citizens supportive of walking and pedestrian infrastructure.	
		Additionally, Aiken is successfully engaging the senior citizen and retired populations of the community.	
		A local chapter of Eat Smart Move More SC and Safe Routes to School are active programs in the community.	
		The downtown has a well-designed pedestrian wayfinding signage program.	
		The infrastructure of downtown and nearby neighborhoods is friendly to pedestrians.	
	The local option sales tax provides an important source of funding that is already in place.	The municipal code supports a walkable environment in downtown and requires sidewalks in many new road projects.	
		The local option sales tax provides an important source of funding that is already in place.	
Opportunities	Improvements are needed within all six E's.	Improvements are needed within all six E's.	
	The City of Aiken has the necessary institutional infrastructure needed to excel in each category.	The City of Aiken has the necessary institutional infrastructure needed to excel in each category.	



ARTS Community	Bicycle Friendly Community Application Highlights	Walk Friendly Community Application Highlights	
Columbia Cou	Columbia County		
Successes	Recently constructed bicycling facilities in the County create an important starting point for growing the bikeway network.	Columbia County is creating walkable, pedestrian-friendly nodes of development throughout the community, such as Evans Town Center.	
	The County has invested in two multi- use paths and a four-mile "complete street."	The County has invested in two-multi- use paths and a four-mile "complete street."	
	Several roadway projects are currently being designed to include bicycle facilities.	Columbia County partners with Central Savannah River Area to promote Safe Routes to School.	
	Columbia County partners with Central Savannah River Area to promote Safe Routes to School.		
Opportunities	Improvements are needed within all five E's.	Improvements are needed within all five E's.	
	Columbia County's investment in bicycling infrastructure and efforts to include bikeways in new projects is significant, but needs to be backed by policy to ensure long-term impact.	Columbia County's investment in walkable development nodes and multi-use paths is significant, but needs to be backed by policy to ensure long-term impact.	
	Columbia County currently lacks organized, community-level bicycle advocacy.	Columbia County currently lacks organized, community-level pedestrian advocacy.	

¹ A specific application due date for July 2012 is not yet available, as of January 2012.

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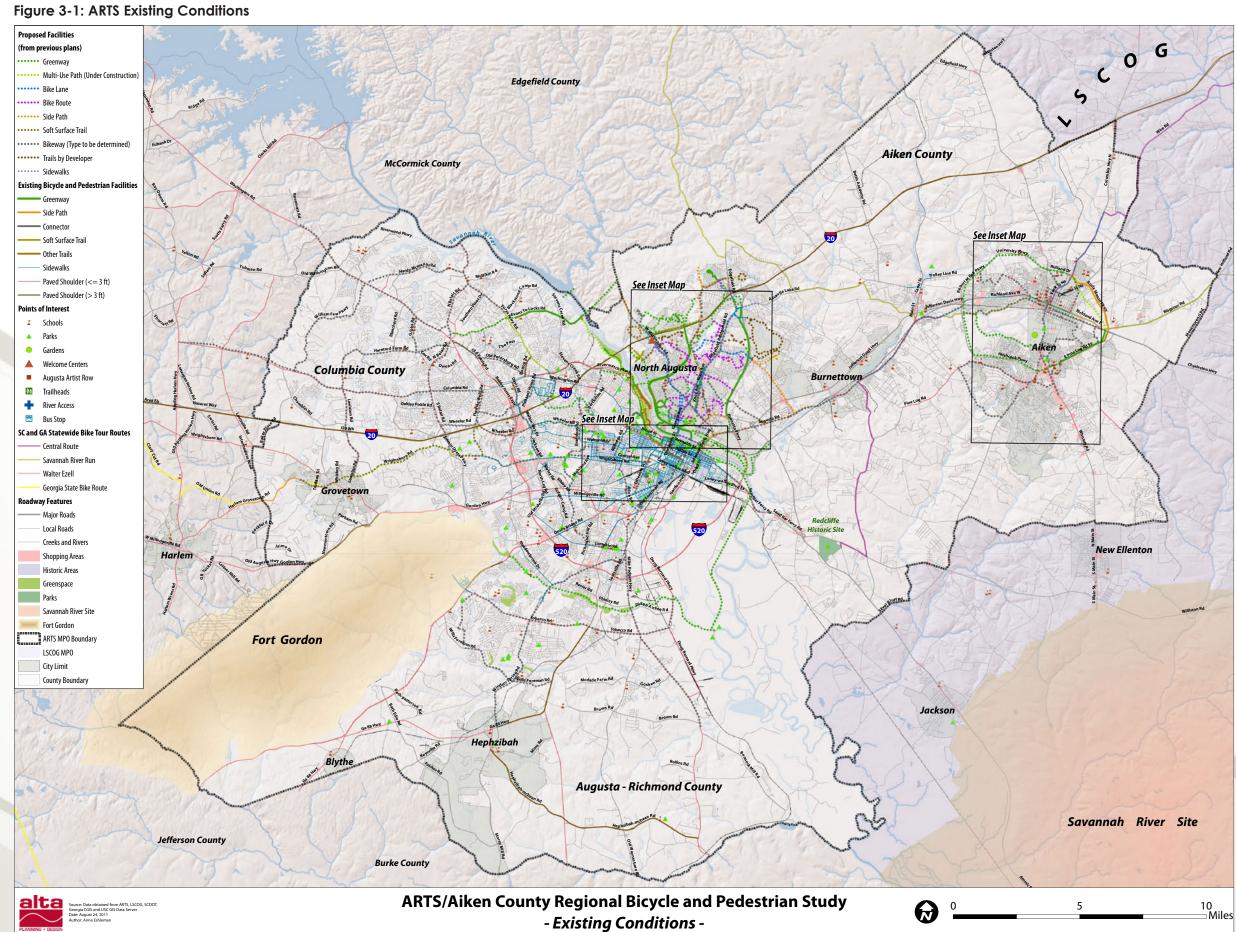
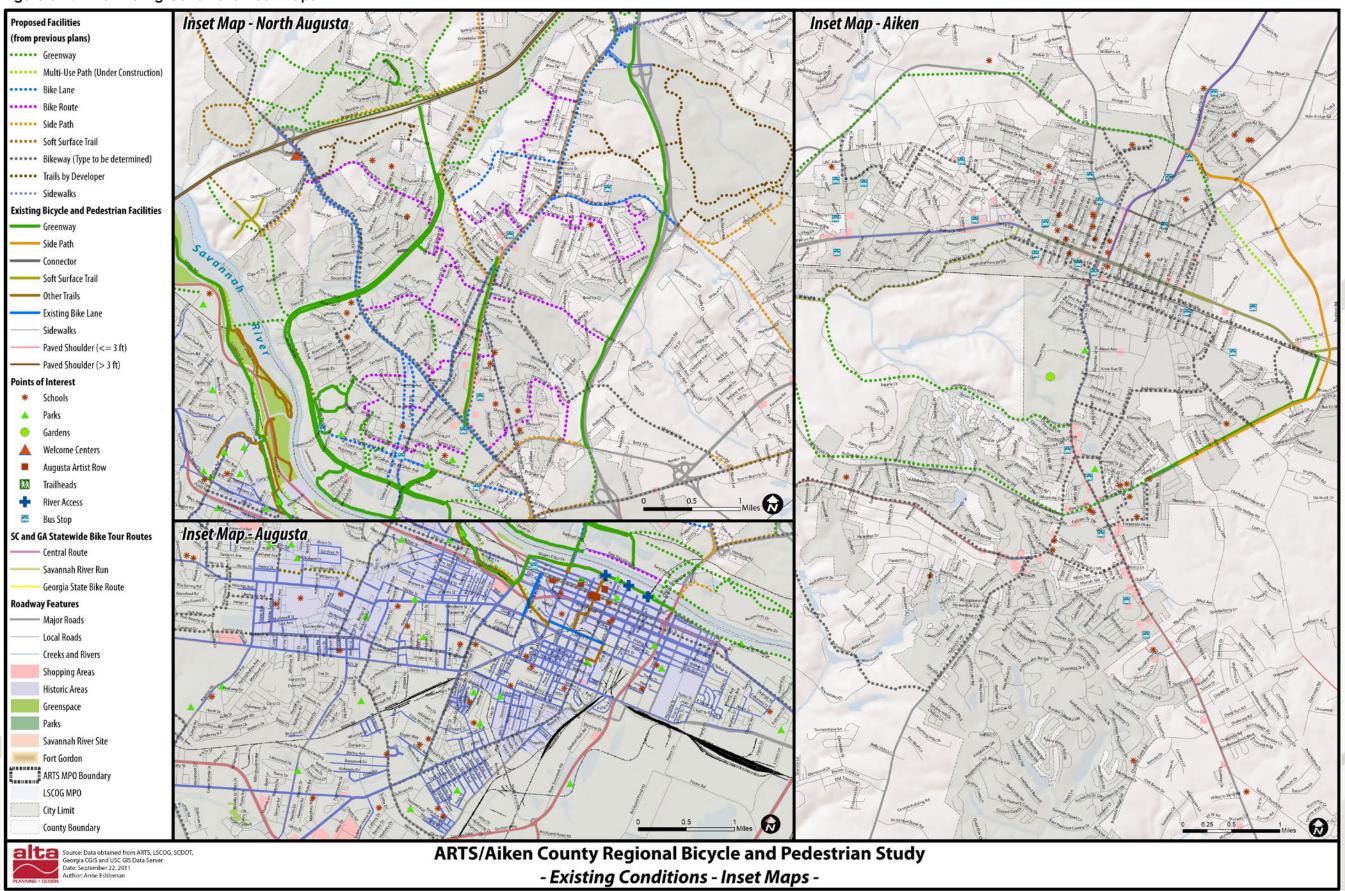


Figure 3-2: ARTS Existing Conditions Inset Maps





Engineering Assessment

Maps 3-1 and 3-2 depict the current physical environment for walking and bicycling in ARTS. The region currently has a limited network of bicycling and walking facilities that includes sidewalks, paved shoulders, bicycle lanes, multi-use paths, and greenways. While the design guidelines provided in Appendix E of this Plan offer detail descriptions of each of these types of facilities, it is important to note that not all of the existing facilities within ARTS meet the standards of guidelines. The following section describes the existing opportunities and constraints of bicycling and walking infrastructure in the ARTS region.

Bicycle Infrastructure

Overview

ARTS and its member jurisdictions, in partnership with GDOT and SCDOT, have taken several proactive steps to make the region and its communities more bicycle-friendly by installing bicycle lanes, shoulders, and sidepaths in conjunction with roadway construction and reconstruction projects. A number of trails and multi-use paths are also provided throughout the region for recreation and transportation uses. These facilities provide a good foundation for a bicycle facility network. However, a majority of the roads in the study area pose numerous dangers to bicyclists as they travel to and from destinations. Some of these hazards include commercial corridors that are designed solely for motorized transportation, multiple lane high-speed roadways, narrow roadways with little or no shoulders, and dangerous railroad and driveway crossings. Furthermore, little to no connectivity is currently provided between existing facilities and numerous barriers to connectivity exist, such as streets that deadend at a major highway or interstate crossing and cul de sacs that do not connect adjacent neighborhoods.

Strengths of Existing Bicycle Conditions

Existing on-road bicycle facilities (Figure 3-3): There are currently 7.1 miles of bicycle lanes in the ARTS region. All existing bicycle lanes are within the Columbia County and Augusta-Richmond County portion of ARTS.

Multi-use paths: The region's 34.8 miles of greenways (including the Greeneways

of North Augusta) provide bicycling and walking opportunities for both recreation and transportation and have led to increased public support for investment in bicycling and walking infrastructure.

Roadway Network Opportunities

Downtown grid network: Streets within the downtown areas of Augusta, North Augusta, and Aiken are on a good grid system for all transportation modes and many have low automobile speeds which contributes to a comfortable bicycling environment.

Roadway/lane widths (Figure 3-4): Many roadways throughout the region are wide enough to offer bicycle lanes or other bicycle facilities without the need to add additional pavement width.

Low-volume roads (Figure 3-5): The ARTS region has numerous residential areas with low-volume streets, low-speed travel, and inviting streetscapes. This type of existing network is suitable for bicycling activity, in particular, and often, walking, as well.

Deficiencies of Existing Bicycle Conditions

Lack of connectivity (Figure 3-6): As a whole, the existing bicycle facilities are often disconnected which makes it difficult to find adequate routes to destinations. The development of parkways through the region has, in many cases, disconnected existing roadways, split neighborhood connections, and precluded at-grade crossing opportunities. The development of residential subdivisions that do not have a connected street grid has added further challenges to connectivity.

Maintenance issues: Some existing bicycle facilities retain stormwater debris, which can pose a hazard for bicyclists. For example, Fenwick Street in Augusta collects significant amounts of plant and trash materials.

Lack of signage: Limited to no signage is available to direct bicyclists from one existing bicycle facility to another or to identify preferable routes for bicyclists.

Roadway Network Constraints

Connectivity issues: There is a lack of connectivity between existing facilities and destinations.

Photo Inventory of Existing Bicycling Conditions



Figure 3-3: There are currently 6.8 miles of bicycle lanes in the ARTS region. All existing bicycle lanes are within the Columbia County and Augusta-Richmond County portion of ARTS.



Figure 3-6: As a whole, the existing bicycle facilities in the ARTS region are often disconnected which makes it difficult to find adequate routes to destinations.



Figure 3-4: Many roadways throughout the region are wide enough to offer bicycle lanes or other bicycle facilities without the need to add additional pavement width.



Figure 3-7: There are many wide high-volume commercial roadways throughout the region with high speeds and little shoulder space for cyclists.



Figure 3-5: The ARTS region has numerous residential areas with low-volume streets, low-speed travel, and inviting streetscapes.



Figure 3-8: There are also many roadways throughout the region that are too narrow for bicyclists and motorists to comfortably share the road.



High-volume, high-speed roadways (Figure 3-7): There are many wide high-volume commercial roadways throughout the region with high speeds and little shoulder where bicyclists are not safe. These roadways are, at times, the only connection to numerous commercial, retail, and office destinations. Examples include Washington Road in Augusta-Richmond and Columbia Counties and Whiskey Road in Aiken County.

Narrow roadways and lanes (Figure 3-8): There are also many roadways throughout the region that are too narrow for comfortable bicycle travel. These roads have little or no shoulder and have relatively high vehicle travel speeds which pose multiple hazards for bicyclists. Examples of this can be seen on portions of Belair Road in Augusta and Banks Mill Road in Aiken.

Railroad crossing access issues: There is poor access across railroad tracks. At-grade crossings are common throughout the region and many of these are dangerous for bicyclists because of the uneven surfaces with the roadway and tracks (in addition to the hazards they cause for people with strollers, wheelchairs, or walkers). Laney Walker Boulevard, Old Evans Road, Evans to Locks Road and Dibble Road all provide examples.

Driveway access management: High frequency of driveways and parking lot curb-cuts present repeated hazards to cyclists as the automobile crosses the cyclists' path of travel. Additionally, curb-cuts that stretch beyond standard ingress and egress width add to the hazardous conditions, making it difficult for a bicyclist to predicate motor vehicle turning movements.

Roadways currently designed for automobile only: Many roads were designed around the automobile and need to be redesigned to be more bicycle friendly. Narrowing existing lanes and adding planted medians, sidewalks, and shade trees could also help reduce speeding and the hazards that speeding presents to cyclists, pedestrians, and drivers.

Pedestrian Infrastructure

Overview

The ARTS region features some areas that are pedestrian-friendly, and many areas that are not. On any given day, hundreds

of pedestrians can be observed throughout the central areas of Aiken and Augusta in particular. Sidewalks and crosswalks have existed in the downtown areas in many cases since the early history of the cities. The portion of Columbia County within the ARTS region has experienced rapid growth in development in recent years and has not had the benefit of building on established, historic walkable community patterns. While some neighborhoods in the region have adequate pedestrian facilities, a majority, unfortunately contain little to none.

The region is giving attention to pedestrian friendly concerns. In particular, Columbia County has begun the process of inventorying sidewalks and promoting walkable nodal developments. The Augusta and Aiken communities have taken steps to preserve and improve the pedestrian friendliness of their central business districts and North Augusta has implemented an impressive network of pedestrian friendly Greeneways. Additionally, many intersections in the region have countdown signals and ADA accessible curb ramps. This is not the case for all intersections, however.

Strengths of Existing Pedestrian Conditions

Sidewalks (Figure 3-9): Downtown environments have a pedestrian-friendly sidewalk infrastructure and buffered sidewalks exist near some schools.

Some enhancements in place: Many intersections already contain functional pedestrian elements including pedestrianactivated countdown signals. Streetscape improvements that affect the pedestrian environment are in place in many areas, as well.

Downtown (Figure 3-10): The downtown environments of Augusta and Aiken, in particular, provide very pedestrian-friendly infrastructure. Sidewalks are wide and allow space for streetscape amenities, and pedestrian refuges exist at many downtown street crossings. Moreover, active storefronts and first-floor retail create inviting destinations for pedestrians.

Multi-use paths (Figure 3-11): The region has begun to significantly invest in greenways (and Greeneways) to provide transportation and

Photo Inventory of Existing Pedestrian Conditions



Figure 3-9: Buffered sidewalks exist near some schools and other destinations.



Figure 3-12: Numerous gaps in the sidewalk system exist, especially in more recently developed areas.



Figure 3-10: The downtown environments of Augusta and Aiken, in particular, provide very pedestrian-friendly infrastructure.



Figure 3-13: Unfriendly crossing facilities are commonplace lacking high-visibility crosswalks, adequate curb ramps, and countdown signals.



Figure 3-11: The region has begun to significantly invest in greenways (and Greeneways) to provide transportation and recreation options for areas of existing and future development.

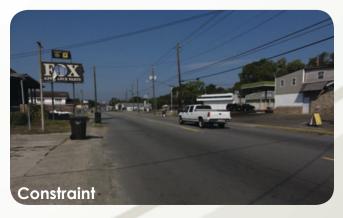


Figure 3-14: Many commercial corridors feature long, wide, and multiple driveway entrances which creates safety hazards for pedestrians and other roadway users.



recreation options for areas of existing and future development.

Deficiencies of Existing Pedestrian Conditions

Lack of overall connectivity (Figure 3-12):

Numerous gaps in the sidewalk system exist, especially extending away from downtown areas. This leaves some neighborhoods and destinations disconnected from other areas. Many school areas are lacking adequate pedestrian infrastructure.

Inadequate crossing facilities (Figure

3-13): Incomplete crossing facilities are commonplace lacking high-visibility crosswalks, adequate curb ramps, and countdown signals.

Sidewalk condition: Existing sidewalks, in many locations, are cracking, overgrown, or otherwise in need of repair.

Railroad crossing access issues: At-grade railroad crossings are common throughout the region and many of these are dangerous for pedestrians (particularly persons with strollers, wheelchairs, or walkers) because of the uneven surfaces with the sidewalks and tracks. Also, the crossings also do not have pedestrian-specific automatic gates. Laney Walker Boulevard and 9th Street-James Brown Boulevard serve as examples of this issue.

Driveway access management (Figure

3-14): There are numerous locations along commercial corridors that feature long, wide, and multiple driveway entrances for parking which creates hazards for pedestrians and other roadway users.

Policy Review

The existing conditions for bicycling and walking in the ARTS region is impacted by existing codes, ordinances, and regulations. Appendix B of this Plan provides a comprehensive review of development requirements related to bicycle and pedestrian facilities for five jurisdictions within the ARTS study area. The jurisdictions evaluated were Augusta/Richmond County (GA), Columbia County (GA), City of North Augusta (SC), City of Aiken (SC), and Aiken County (SC). Each of these communities is a member of the ARTS community and representative of the "state of the practice" within the ARTS region. The review was not limited to land development

ordinances of each jurisdiction; some of these jurisdictions also have design guidelines associated with streets and North Augusta has a recently-completed Greeneway, Pedestrian, and Bicycle Master Plan, which was reviewed, as well.

Key findings of the review are as follows:

- None of the jurisdictions researched have a Complete Streets Policy nor guidelines specific to Complete Streets, although North Augusta includes Complete Streets principles in its Comprehensive Development Ordinance (CDO)
- Both North Augusta and Aiken incorporate some Form Based coding in their development standards

 – citywide in North Augusta and in the Downtown District for Aiken
- All communities have design guidelines geared primarily toward the movement of motor vehicles; however, North Augusta includes Complete Streets principles in text and tables, though has not yet provided design details or illustrative sections
- None of the jurisdictions have explicit stateof-the-art guidance on the design and implementation of bicycle and pedestrian facilities in the form of design guidelines, although the topic is referenced in several of the documents reviewed
- While four of the five jurisdictions (excepting Augusta/Richmond) regulate block size and connectivity (motorized and nonmotorized), only the guidelines written by North Augusta would consistently result in walkable communities, and only in TND "use pattern" areas. In Columbia County and the City of Aiken, adding additional pedestrian-scale connectivity within long blocks is left to the discretion of planning and zoning staff rather than being required. The allowable maximum length of deadend streets is also problematic for all but the City of North Augusta, where it has not been specified. However, Columbia County, Aiken, County, and North Augusta do discourage the building of cul-de-sacs wherever possible
- None of the jurisdictions reviewed considered elements such as multi-modal level of service as criteria for development

review, although North Augusta does prioritize traffic mitigation measures for new development approvals that includes multimodal measures

- None of the jurisdictions reviewed included any strategy for sidewalk or bicycle facility retrofits on existing facilities
- The jurisdictions have variable approaches to regulating automobile and bicycle parking. In no location is bicycle parking required, and in all but North Augusta, minimum automobile parking requirements appear to be excessive. Waivers to these minimums, tend to be limited to very small geographies

The policy evaluation indicates that ARTS could provide guidance and direction to its member municipalities to significantly strengthen many areas regarding complete streets, bicycle, and pedestrian facility requirements and enhancements within the context of their development ordinances. Additional guidance geared toward retrofit of existing facilities is also recommended. Policy recommendations to address these opportunities are provided in Chapter 6.