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Town of Allendale Pedestrian Master Plan

2016

ACKNOWLEDGEMENTS

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Thank you to the residents of Allendale for their participation in this planning process and their passion for improving the place they call home.

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Thank you to the engaged leaders of the Allendale community for their continued participation throughout the planning process and for their commitment to furthering the efforts of this Plan.

Thank you to the South Carolina Department of Health and Environmental Control (DHEC) for support and involvement in the planning process, as well as other local, regional, and state stakeholders including the University of South Carolina - Salkehatchie, the Lower Savannah Council of Governments (LSCOG), and the South Carolina Department of Transportation (SCDOT).

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I. INTRODUCTION

Transportation is about more than asphalt, concrete, and steel. Ultimately, it is about providing people with the opportunity for a safer, happier, and more fulfilling life.

- Rodney Slater

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Former US Secretary of Transportation

PLAN OUTLINE

I. INTRODUCTION

This chapter describes the impetus for this plan, and establishes its overall vision and goals. It answers the questions "Why has Allendale developed a pedestrian master plan?" and "What does this plan expect to accomplish?"

II. DATA COLLECTION & PUBLIC INPUT

Chapter 2 draws a high-level picture of the current walkability setting in Allendale as gathered from a review of existing planning documents, data analysis, field work, and an extensive public outreach process.

III. EXISTING CONDITIONS ANALYSIS

Chapter 3 expands on the findings of the previous chapter by evaluating the existing conditions a pedestrian experiences in Allendale, as well as adding layers of analysis centered on equity and access to healthy food options and active spaces.

IV. PROGRAM RECOMMENDATIONS

This chapter describes priority program recommendations in the form of detailed cutsheets.

V. INFRASTRUCTURE RECOMMENDATIONS

This chapter establishes the long-term vision of infrastructure recommendations for Allendale, as well as detailed cutsheets for two priority infrastructure projects. These cutsheets are intended to give a sense of what the recommendations will look like and a brief strategy for implementing them.

VI. STEPS FOR MOVING FORWARD

The final section of this plan introduces an action plan for moving from recommendations to implementation.

PROJECT VISION & GOALS

The following vision statement and goals of the Walk Allendale Plan were crafted in steering committee meetings with public support expressed by the residents of Allendale during outreach and engagement activities.

The vision statement applies to both the plan itself, and the desired outcome of its implementation.

Project Vision

The Town of Allendale will be a place where a connected network of comfortable and convenient pedestrian facilities are provided to people of all ages and abilities; where pedestrian-friendly design is prioritized in all future road, streetscape, and land use projects; where citizens enjoy walking as a means of transportation and recreation; where increased walkability benefits the local economy; where all residents can easily access healthy food and recreational areas on foot; and where everyone enjoys a high quality of life.

Project Goals

- Improve sidewalk connectivity by filling in gaps in the sidewalk network
- Increase pedestrian safety by improving crossing conditions, especially on major roads
- Increase pedestrian activity downtown, recognizing the indirect benefits of a lively sidewalk and activated storefronts
- Identify local champions to work with the stakeholder committee on moving recommendations to implementation

- Create synergy through lowcost, easy-to-implement tactical projects that involve community members to make fast and fun improvements that enliven the streetscape
- Increase the percentage of trips that are made by walking
- Improve the perception of public safety through programs and partnerships with area law enforcement

PROJECT BACKGROUND

Through a recent grant from the Centers for Disease Control and Prevention (CDC), the South Carolina Department of Health and Environmental Control (DHEC) is leading an effort to increase pedestrian planning efforts throughout South Carolina. The effort is part of the DHEC South Carolina Prevention and Health Across Systems and Environments (SC PHASE) Pedestrian Planning Project.

SC PHASE Pedestrian Planning is a 3 year project to develop pedestrian plans for 16 communities in specific counties throughout the state. **Beyond the basic tenets of walkability and pedestrian safety, key elements of the program initiative are:**

- Equity-based planning
- Community engagement
- Safe pedestrian access to healthy foods

The Town of Allendale is one of the 16 communities to participate in SC PHASE Pedestrian Planning.

An Allendale resident traverses the town with the support of a cane. This plan sets out to address the mobility needs of all ages and abilities. Pedestrian plans and policies play a critical role in fostering more walk-friendly communities by establishing the conditions that support and encourage safe walking environments. Such plans provide the basis for new community norms where walking is seen as practical and appealing for people of all ages and abilities by providing for the infrastructure, programs, and amenities to support healthy choices and active transport. With 25.1 percent of South Carolinian adults reporting no leisuretime physical activity, and 56.6 percent of high school students reporting not being physically active on five or more days, finding ways to support more walking as an accessible and convenient form of physical activity will be vital to improving the health of South Carolina's residents.

OVERVIEW

The Town of Allendale is the county seat of Allendale County, on the western edge of the Low Country Region. Allendale is a community of around 3,400 people, located 80 miles northwest of Charleston, South Carolina.¹The town is home to the main campus for the University of South Carolina Salkehatchie.

The Town of Allendale has a council-manager form of government, with a Town Council and mayor. In addition, the Planning Commission and Zoning Board guides the town's land use and community development. Allendale is also part of the Lower Savannah Council of Governments, a regional forum that allows local governments to coordinate transportation planning and decision-making across a sixcounty region, including Aiken, Allendale, Bamberg, Barnwell, Calhoun, and Orangeburg counties.

As a small town whose economy hinged on its status as a tourist stopover location, Allendale saw a decline in economic activity with the construction of I-95 starting in 1968. The new interstate, 15 miles east of Allendale, pulled motorists away from downtown. However, the town is looking towards renewed prosperity through community investment and proactive grant-seeking to improve quality of life.





Historic photo of Main Street in downtown Allendale from 1951. Various businesses such as banks, drug stores, and department stores used to line this main corridor.



Restaurants, such as Lobster House, served the plethora of visitors passing through Allendale as they journeyed between New York and Miami.

Reference map of the Town of Allendale within Allendale County and the state.

¹ U.S. Census Bureau, 2010 Census.

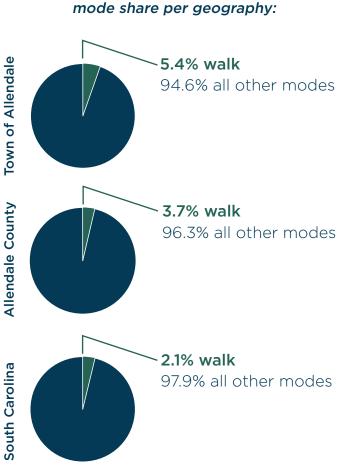
COMMUNITY PROFILE

The racial make-up of the Town of Allendale is predominantly Black (or African American) — with 90.0% of residents identifying as such and the remaining 10% of residents identifying as white. For comparison, Allendale County is 73.9% Black (or African American), and South Carolina as a whole is 27.7% Black (or African American).

The median income for households in the Town of Allendale is \$25,395, a figure slightly below that of the county (\$25,495) and about half of the median income for all of South Carolina (\$45,033).²

Over one-third (36.8%) of the labor force in the Town of Allendale are unemployed, compared to 23.6% and 11.4% for the county and state, respectively. Given this lower income level and higher rate of unemployment, it is not surprising then that 39.3% of all people in the Town of Allendale live below the poverty level. The rate of poverty at the state level is drastically lower at 18.1% for comparison.

In terms of mode share, nearly 70% of town residents commute to work in private vehicles. A significant percentage (22.3%) of residents carpool to work. Slightly over one percent of residents commute via public transportation, which is on par with county and state rates. Since most people walk to transit stops, it is important to ensure that adequate pedestrian facilities are in place in order to support and continue to encourage walking as a healthy and safe mode of travel. Over 5% of the working population walk to work compared to 3.7% for Allendale County and just 2.1% for the state. These statistics are represented graphically in the adjacent figure.



Walking as a percentage of commuting mode share per geography:

⁴ U.S. Census Bureau 2010-2014 American Community Survey 5-Year Estimates

⁵ Dangerous by Design - South Carolina

It is important to note that mode share does not paint a full picture of need and demand. however. Mode share data is collected through an American Community Survey question which asks for the "primary" way a resident gets to work. This excludes walking commutes that occur as a secondary mode (for example, walking to a bus) and also excludes trips to destinations other than work. Moreover, those households in the Town of Allendale who do not have access to vehicles (almost 22% – about 6% above the county rate) and those households with access to only one vehicle (40%) may walk out of necessity, and residents who currently drive might opt to walk to work if a safe and comfortable walking environment with adequate facilities existed.

Safety is key in encouraging and sustaining pedestrian activity. State traffic collision data show that Allendale County has a pedestrian fatality rate of 1.9 deaths per 100,000 people, compared to a rate of 2.3 per 100,000 people for the state. While lower than the state average, finding ways to draw this rate closer to zero in the Town of Allendale will still be an important goal for promoting walkability.



Drainage and maintenance issues across the town create hazardous barriers for pedestrians, particularly people with disabilities. Identifying and rectifying these problems will increase access and mobility for Allendale's residents and visitors.



WHAT IS WALKABILITY?

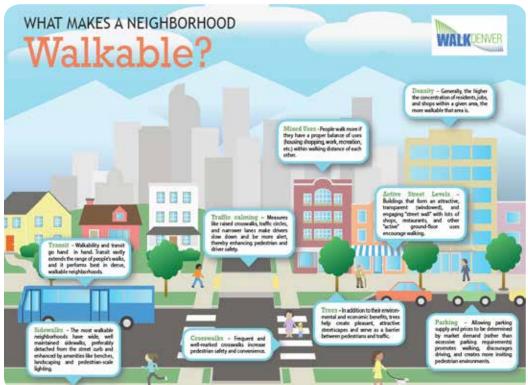
Walkability is more than the ability to walk. It is a holistic approach for evaluating a streetscape or community's design, and a means to understand the factors that influence and encourage pedestrian activity. The goals of a walkable place are multi-faceted and contextspecific but typically strive for the following:

- increase personal mobility by providing alternatives to driving private automobiles
- increase personal mobility with ADAaccessible streetscapes
- stimulate vibrancy in commercial and social realms of a community
- increase access, proximity, and convenience to more destinations through a wellconnected network of sidewalks, crosswalks, and walking trails
- create an attractive place with inviting street orientations, landscaping, street furniture, and architectural design

There is no single, catchall walkability definition or one specific metric for measuring walkability. However, across the various attempts at a comprehensive definition, common themes emerge. Apart from the potentially obvious features that encourage walkability, like sidewalks and frequent, visible crossings, walkable places also incorporate the following key principles:

- human-scaled environment
- strong sense of place
- physical access
- connected walkways and street pattern
- mix of land uses
- density and location of facilities
- managed parking

The Town of Allendale is not yet an archetype of a walkable community, however, there is a basis of existing facilities and features that will support and contribute to the Town's goal of becoming a more pedestrian-friendly space. This Plan presents opportunities to build off of those existing resources.



"What Makes a Neighborhood Walkable?" graphic from WalkDenver, a pedestrian advocacy group.

WHY PLAN FOR PEDESTRIANS?

Imagine Allendale in 20 years...

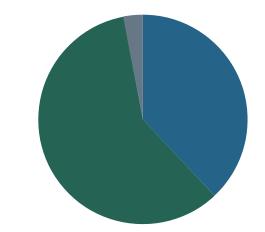
as a place where people choose to walk – not out of necessity, but because it is a convenient and enjoyable transportation choice.

Development is well-designed and accessible so that residents have many of their everyday needs within walking distance. Pedestrianfriendly streets are prevalent throughout the community, and parents feel perfectly safe letting their children walk or bike to school, parks, or other destinations by themselves, or as part of an enjoyable and healthy family outing. Older adults who no longer drive can easily access grocery stores and medical appointments. Because the streets are safer and a growing pedestrian network connects more people to more places, people are walking in record numbers. Obesity rates decline, and families in all parts of the community can easily access healthy food. Serious pedestrian collisions have dropped substantially.

The cumulative result of this environment has resulted in substantial savings for the community and taxpayers. Road maintenance is less expensive as fewer cars are on the roads, and residents save money on gas while the air quality improves for everyone. Downtown attracts more local businesses that want to invest in a vibrant, active community and cater to the growing population. An increasing number of communities and their leadership are seeing the potential of a future like this one; a future where better active transportation environments are critical parts of transforming and revitalizing our communities, making them more desirable places to live, work, and visit. This movement is a direct result of the nationwide demand for more livable communities and transportation options.

In 2010, Transportation for America conducted a nationwide survey that showed 59% of Americans in rural and urban areas preferred a transportation future that "[improves] public transportation and making it easier to walk and bike over building more roads and expanding existing roads." See Figure 1.1 below. And 73% [of respondents felt] they 'have no choice but to drive as much as they do', with 57% desiring to spend less time in the car."

Figure 1.1 Americans' Preferences for Reducing Traffic Congestion



59% WE NEED TO IMPROVE PUBLIC TRANSPORTATION, INCLUDING TRAINS AND BUSES, TO MAKE IT EASIER TO WALK AND BIKE AND TO REDUCE TRAFFIC CONGESTION

38% WE NEED TO BUILD MORE ROADS AND EXPAND EXISTING ROADS TO HELP REDUCE TRAFFIC CONGESTION

SUMMARY TABLE OF WALKABILITY BENEFITS

ECONOMIC BENEFITS		
Public infrastructure savings	Compact, walkable communities save costs on road building, maintenance other public infrastructure.	
Attracts businesses	Walkable communities have lower vacancy rates and increasingly attract businesses that want to offer convenient amenities and short commutes.	
Reduces individual transportation costs	Residents of walkable communities save money on costs associated with transportation, including vehicle ownership costs, operating costs, and parking costs.	
Magnet for millennials and baby boomers	Demand for walkable communities is growing, especially among millennials and boomers - both generations that wish to drive less and be able to easily reach destinations on foot.	
Increases housing values	Walkable communities have higher housing values and have higher stability than auto dependent communities during a recession.	
Improves socioeconomic mobility	Walkable areas have concentrated amenities such as jobs that are easily accessible to low-income residents and provide greater opportunities for economic mobility.	
Attracts visitors	Walkable communities attract tourist dollars with lively streets, engaging storefronts, short distances between attractions and a unique sense of place.	
Attracts recreation spending	Walkable communities are great places for outdoor recreation. Multi-use trails and safe streets can attract bicyclists and events such as triathlons that pump money into the local economy.	

HEALTH BENEFITS			
Improves physical health	Places that encourage walking have lower rates of chronic disease related to physical inactivity such as diabetes, heart disease, and osteoporosis. A simple walk improves balance, limits sickness, strengthens muscles and builds bone mass, as well as burns more fat than jogging. People who live in walkable neighborhoods are two times as likely to get enough physical exercise as those who do not.		
Improves mental health	Walkable communities can prevent the onset of cognitive decline and improve mental function. Walking can also prevent and reduce the symptoms of depression and anxiety, stimulating a sense of well-being through released endorphins.		
SAFETY BENEFITS			
Improves safety for all road users	Streets that are designed for pedestrians have safety benefits for all users of the road, including bicyclists and drivers. Sidewalks, medians, and traffic calming have particular direct effects. Safety in numbers - more people walking and biking - has proven to be an indirect safety improvement that reduces the risk of a collision.		
ENVIRONMENTAL BENEFITS			
Improves air quality	By reducing the distance to amenities and increasing the safety of walking to destinations, more trips can be made by walking while reducing emissions and reliance on fossil fuels.		
Preserves open space and greenspace	Compact, walkable development allows for more green space, water sources, and wildlife habitat to be preserved.		

SUMMARY INFOGRAPHIC OF WALKABILITY BENEFITS

The walkability infographic, shared below, notes ways in which improved active transportation can have a positive impact on the economy, health metrics, and fostering a sense of community. These benefits offer a powerful statement regarding Allendale's return on investment for implementing the recommendations in this Plan.





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II. DATA COLLECTION & PUBLIC INPUT

As a fish needs to swim, a bird to fly, a deer to run, we need to walk, not in order to survive but to be happy. - Enrique Peñalosa Mayor of Bogotá, Columbia

OVERVIEW

The Walk Allendale Pedestrian Plan is shaped by data collected from previous plans and the feedback received during public input. The public input process was crucial for understanding Allendale's primary needs and identifying specific programs, projects, and policies that address those needs.

This chapter provides an overview of the major data collection and public input components that shaped the recommendations of this Plan. Each section describes the information gained and the critical outcomes of that process. Sections include:

- Review of Previous Planning Efforts
- Public Input Overview
- Focus Group Summary
- Survey Results Summary
- Walk Allendale Visioning Event Summary
- Public Input Meeting Summary

REVIEW OF PREVIOUS PLANNING EFFORTS

This section provides a summary of recent pedestrian and greenway planning-related efforts in the Town of Allendale. Three relevant plans exist - the Lower Savannah Council of Governments Bicycle and Pedestrian Regional Plan, the Allendale Comprehensive Plan, and the Allendale Downtown Revitalization Plan. The three plans reviewed are listed chronologically in the table below and are described in further detail on the following pages. The Allendale Pedestrian Master Plan combines, updates, and refines previous recommendations for sidewalks and greenways to present a proposed future network. Common themes emerge across the different plans. These **themes center on Allendale's need for an improved quality of life, including active transportation and safe pedestrian access to recreation.** To achieve a vision for walkability, the plans include the following recommendations:

- provide a seamlessly connected walking network
- provide a well-maintained greenway system
- promote access to alternative transportation
- improve land use and urban design to enhance walkability and quality of life

Plan	Agency	Year
Vision Statement and 5-Year Revitalization Plan	Town of Allendale	Ongoing
Lower Savannah Council of Governments Bicycle and Pedestrian Regional Plan	Lower Savannah Council of Governments (LSCOG)	2012
Allendale Comprehensive Plan	Town of Allendale	2010
Allendale Downtown Revitalization Plan	Town of Allendale	2002

VISION STATEMENT AND 5-YEAR REVITALIZATION PLAN

Community leaders and town council have partnered to create a 5-year revitalization strategy which seeks to advance and fulfill the newly established vision statement for the town and county.

The current plan is in its draft stage, however, key goals with respective measurable outcomes have been identified. General objectives of the plan include the following:

- Rebrand Allendale's public image
- Stimulate economic revitalization by attracting and retaining businesses which offer **local employment opportunities**
- Provide and expand upon commercial opportunities, creating more destinations for residents and visitors
- Promote a sense of **community pride** through beautification campaigns
- Offer vocational training opportunities to support the educational attainment needs of Allendale's residents
- Improve the quality of life for residents which in turn can be leveraged to attract new residents and visitors
- Encourage adult and youth involvement in community initiatives

LOWER SAVANNAH COUNCIL OF GOVERNMENTS BICYCLE AND PEDESTRIAN REGIONAL PLAN

The LSCOG Bicycle and Pedestrian Regional Plan guides development of a regional pedestrian and bike network in the Lower Savannah region of South Carolina. This region includes six counties in southwestern South Carolina; Aiken, Allendale, Bamberg, Barnwell, Calhoun, and Orangeburg. The plan provides a review of existing facilities, along with an analysis of safety issues and predicted future demand.

Recommendations include policies, programs, and projects to increase active transportation through a 6E approach; engineering, education, encouragement, enforcement, evaluation, and equity. Recommendations were made to systematically address the needs of a variety of users. **Design guidelines were also established to ensure bicycle and pedestrian facilities are included in all projects** programmed through the Lower Savannah Rural Transportation Program.

Key recommendations in the plan include:

- Capitalize on the popularity of existing regional trails and state bike tour routes
- Provide facility types for the needs and comfort level of all types of users
- Expand paved shoulders, particularly in rural areas



ALLENDALE COMPREHENSIVE PLAN

This plan does not directly provide for a response to the bicycle and pedestrian needs of the county. Combined with a decline in both the agrarian and manufacturing/industrial economies and a steady decrease in population since 1930, the county focus is instead on first addressing economic development.

In 2005, Allendale County began providing county transportation service (Allendale County Scooter) leveraging existing agencies to offer transportation for its citizens. The service has been highly successful with 65+ daily riders, with more than half of those riders using the service to get to work.

The Comprehensive Plan's implementation strategies include a drive to **continue to support and encourage infrastructure improvements** (namely road surface improvements) that will **improve the quality of life and attract new businesses and industries.** These improvements, though not specifically addressing pedestrian needs, **can include improvements for pedestrian safety.** Additional goals include:

- Continue to promote and support public transit programs and explore possibilities of expanding the transit network in the county
- Encourage tourism by promoting the county's assets and supporting facilities to accommodate visitors
- Consider promoting the Allendale County quality of life though national marketing campaigns.
- Adopt "Best Management Practices" in developing nature-based and eco-based tourism

ALLENDALE DOWNTOWN REVITALIZATION PLAN

This plan focuses on business retention and revitalization to reverse patterns of dwindling economic opportunity and population decline in Allendale. A three day charrette and design effort provided public input.

The final plan includes an inventory of existing conditions, a park study, and an economic analysis. **The plan builds on Allendale's unique assets to provide recommendations for branding, signage, street lighting, and streetscapes.** Specific streetscape beautification recommendations are included for Main Street and adjacent core streets such as Hickory and Memorial. Streetscape recommendations include:

- traditional street lamps
- brick paver accents
- street trees
- seating plazas
- open space



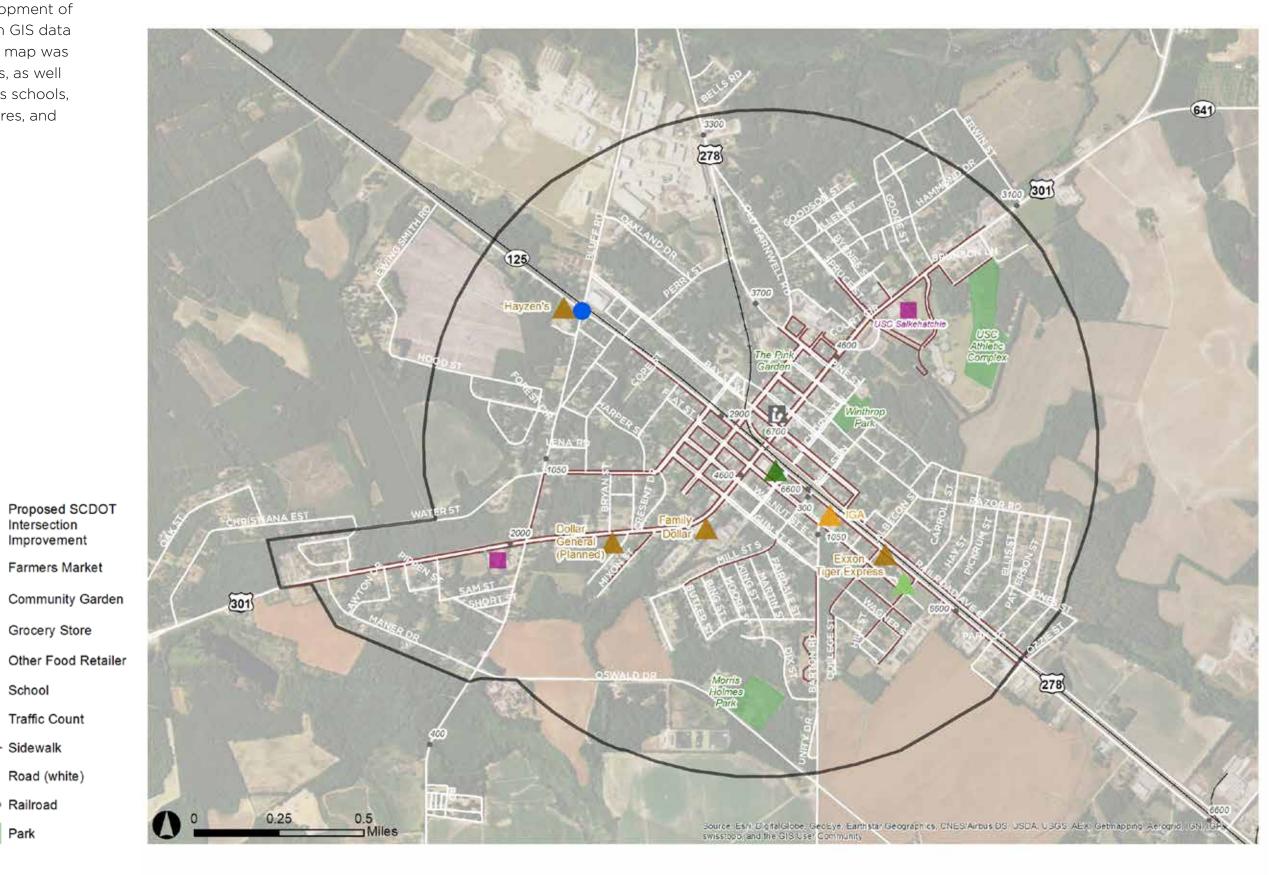
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RESULTS OF DATA COLLECTION

A first step in evaluating the existing conditions of the Town of Allendale, is the development of a comprehensive base map. Based on GIS data collected by the project team, a base map was created to illustrate existing sidewalks, as well as key supporting information such as schools, parks, community library, grocery stores, and other food retailers.



School

Sidewalk

Railroad

Park

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PUBLIC INPUT OVERVIEW

As part of the data collection process and during the development of network recommendations, the project team solicited input from Allendale residents, community leaders, and project stakeholders. Feedback was collected in a number of ways in order to be most inclusive and representative of the community make-up. This includes:

- 3 focus group sessions
- 1 youth focus group session
- Survey (online and hard-copy)
- Technical training and visioning walk
- Public Input Meeting

This section summarizes the key findings from each channel of public outreach.



Walk Allendale Visioning Event participants review a preference board and vote for the top three factors they believe will encourage walking.

"You can't have community without unity." - focus group participant

"We need more activities for children, something for them to do in the summer." - survey respondent



Walk Allendale Visioning Event participants take part in a brief stretching activity to get their blood flowing before learning about the benefits of a walkable community.

FOCUS GROUP SUMMARY

Three focus groups were conducted at the Leadership Institute at USC-Salkehatchie. In total, twenty-one community members participated in the three groups. Participants were chosen based on residency in Allendale as well as interest in improving access to active living and healthy eating. To ensure that residents from all areas of the town were represented, members from each of Allendale's seven neighborhood association groups were invited to participate.

Specific objectives of the focus groups include the following:

- Identify residents' opinions of walkability in Allendale
- Explore residents' perceptions of pedestrian safety issues
- Seek input from residents on priority pedestrian planning projects and destinations
- Seek residents input on the level of accessibility to active living and healthy eating in Allendale

"People don't stay in a place because of money. [People stay] because of how it makes them feel."

- focus group participant

KEY FINDINGS

Question: What assets exist in Allendale? How can the pedestrian master plan build upon or leverage current assets?

• USC Salkehatchie

In addition to being one of Allendale's most important educational and economic resources, the school is a popular destination for walkers and runners. Many participants said they walk regularly around the campus in the early mornings and/or in the evenings.

• Winthrop Park

The park, which is located off of Razor Road, has a lot of potential, focus group participants said. However, they said it needs maintenance, better lighting, and safety cameras to reduce loitering and crime.

The Allendale Farmers Market & Freedom Park

The farmers' market is the main attraction at Freedom Park, which also includes a play structure, picnic tables, and a stage. Participants described the area as beautiful and a family destination — although it does not draw in a lot of youth. People congregate to play checkers and have lunch. It is near the Allendale Community Center on Flat Street and in walking distance to neighborhoods. Nearly every participant said they shop at the market regularly.

• The University Mile project

Focus group members spoke at length about their hopes that the pedestrian plan will help the community leverage this \$1.8 million project that will include the installation of ADA compliant sidewalks, crosswalks, landscaping, and lighting within areas of the USC Salkehatchie campus and the downtown area.

Allendale's Promise Zone designation

Allendale is part of a six-county region that received the federal government's Promise Zone designation, which improves the community's access to federal grant programs. Focus group participants said they hope the pedestrian plan will help the community identify federal grants that could be used to implement pedestrian planning projects.

On feeling safe in Allendale: "Security is like unlocking a door and letting us be free."

- focus group participant

Question: What are the biggest barriers to walkability in Allendale?

Railroad tracks that divide the town
Railroad tracks create major barriers
between sections of the town that are
physically close. Focus group participants
said improving pedestrian safety and
accessibility at railroad crossings would
improve both walkability and community
connectivity.

• Inadequate sidewalks

A lack of sidewalks and the poor condition of existing sidewalks are among the biggest barriers to walking in Allendale, participants said. Overgrown trees and shrubbery near sidewalks was also described as a major challenge. The following streets were mentioned frequently:

- Razor Road
- Bay Street W
- Railroad Avenue West (Kids walk here especially in the area near Happy Home Baptist Church)
- Service road on 278 heading toward the Town of Fairfax

Concerns about personal safety

Focus group participants spoke at length about their fears about personal safety while walking on dark, deserted streets that are often filled with blighted, abandoned homes. They also shared their frustrations about the prevalence of gangs in Allendale. Question: What are high priority projects, streets, neighborhoods, or destinations for improved access? Why are they priorities?

Revitalize downtown

The pedestrian plan should include projects that can add life to downtown streets that feel empty, isolating and, at times, dangerous, participants said. They suggested planting trees on shadeless thoroughfares, covering blank building facades, and adding adequate lighting to create a sense of aliveness and safety in the downtown.

Revive US 301

Many focus group participants who grew up in Allendale spoke fondly of the time before Interstate 95 was built in the 1970s - when 301 was a popular route for drivers traveling between New York and Florida. They said they want to see the addition of landscaped medians, trees, benches, and wayfinding signs to improve the aesthetics and walkability of the thoroughfare and restore some of its former glory.

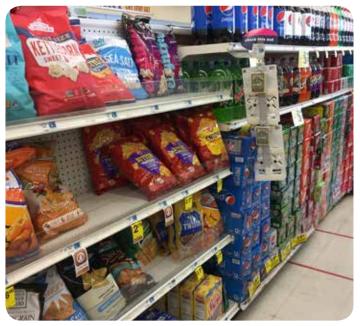
• Create opportunities for young people

Participants said there aren't enough activities for young people in Allendale. They hope the pedestrian plan can help to address the issue by improving pedestrian accessibility and adding amenities such as bleachers to the few areas that youth currently use such as the basketball court in the Razor Road/Roosevelt Heights neighborhood and the softball fields at Morris Holmes Park, which is a county facility.

- Improve access to Winthrop Park
 Re-develop and reclaim the park as a
 family destination and improve access
 for pedestrians who live in the Razor
 Road/Roosevelt Heights neighborhood.
 Participants said they want to see improved
 signage and lighting and better enforcement
 of loitering laws.
 - Connect popular gathering spaces Allendale lacks spaces for residents to gather and share information, participants said. However, they said the destinations that exist are well-utilized and popular. Focus group participants spoke about the need to improve pedestrian access to and from destinations that are already close together to create a few highly populated, walkable areas. In addition to adding and improving sidewalks in those areas, many participants mentioned that they want to see more benches added along popular routes so that pedestrians can rest or socialize. They also want to see the addition of features to slow traffic, buffer pedestrians, and improve lighting and aesthetics.

"Allendale could be a great place to live." - survey respondent

- Participants identified the following as popular pedestrian destinations and routes:
 - The IGA grocery store and the residential neighborhoods near it. The store is in walking distance to a few neighborhoods, but railroad tracks and wooded areas limit pedestrian access.
 - The area that includes the Allendale Farmers' market, Freedom Park, and the Community Center. Participants said more people would walk, rather than drive, to these popular destinations if pedestrian access were improved.
 - The Razor Road/Roosevelt Heights Neighborhood. One of the most populated residential areas in the town is filled with blighted homes, speeding traffic on Razor Road, and inadequate lighting.
 - **Christ Central**. On a daily basis, many in the community walk to and from the organization, which provides food, clothes, and shelter to individuals and families.



Unhealthy snacks and drinks pervade the isles of Allendale's convenience stores. Offering healthier food options in these locations will encourage a healthier lifestyle. Providing increased accessibility to existing healthy food options can also combat unhealthy eating habits.

"How do we get fresher food in the area? I would drive an hour to get better food." - focus group participant

"We've got to figure out how to make people feel comfortable [in our community]."

- focus group participant

SURVEY RESULTS SUMMARY

Walk Allendale Surveys were used to build a better understanding of community needs and priorities related to walking for exercise or transportation. Surveys were distributed online at walkallendale.weebly.com. Informational placards with directions for filling out the survey were dropped off at approximately 10 locations in downtown Allendale. Additionally, the Town of Allendale distributed the online and printed surveys to residents and the University of South Carolina Salkehatchie distributed the surveys to students.

More than 62 online and print surveys have been completed. All respondents either live, work, or own property in the Town of Allendale. People of all ages completed the survey, however, more than one-third of respondents were between the ages of 40 and 64.

This summary section highlights key findings — a full report of survey results can be found in the appendix.

KEY FINDINGS

- Over 70% of respondents believe improving walking conditions is very important
- When asked to indicate primary purposes for walking trips, 72% of respondents indicated they walk for exercise
- **47% of respondents** indicated their secondmost popular purpose for **walking is as a means of transportation.**
- Respondents expressed a preference to walk to the following key destinations:
 - Allendale Public Library
 - Downtown Allendale
 - Allendale County Farmers Market
 - USC Salkehatchie Campus
- The number one factor that discourages walking is the lack of sidewalks, the next three factors that discourage walking were:
 - Lack of pedestrian signals and crosswalks
 - Unsafe street crossings
 - Personal safety concerns



WALK ALLENDALE VISIONING EVENT SUMMARY

During a January visit, Designing4Health joined Alta Planning + Design to lead a public Visioning Session that included a presentation and walk from the Brandt Building in downtown Allendale. The Visioning Session was attended by a mix of community leaders and citizens. The walk highlighted areas where infrastructure improvements are needed and positive elements that the Town of Allendale can build upon. The presentation covered three main parts:

- What makes for a walkable community
- How Allendale can improve walkability
- Ways for Allendale to leverage existing resources

Following the walk and presentation, Visioning Session participants were asked to vote for improvements that would encourage walking by placing stickers on a visual preference board and work in groups to develop short term and long term ideas for improving walkability.

Participants voted for "vibrant storefronts" as the improvement that would most encourage them to walk more. "Better railroad crossings" received the next most votes.

During group breakout sessions, **residents listed their top short-term improvement ideas, including:**

- Beautification efforts
- Clearing sidewalks of brush and debris
- Creating a pop-up parklet at the corner of Butler Street and Highway 301, reclaiming the car-only, paved space that exists

Residents also listed their top long-term improvement ideas, including:

- A downtown "Pop-Up Shop" program
- New pedestrian crossings on Memorial and Highway 301
- Starting an Open Streets event



PUBLIC INPUT MEETING SUMMARY

On March 16, 2016, a Public Input Meeting was held at City Hall to finalize recommendations developed from field work, focus group sessions, surveys, and the Visioning Session.

The project team used two interactive posters - one with draft project recommendations and one with draft program recommendations - to gauge community priorities. Participants were asked to provide feedback and comments on the draft corridor and spot improvement recommendations. Meeting participants were also asked to vote for their favorite programmatic ideas which were organized into the following categories:

- Public Safety
- Youth Activities
- Public Engagement
- Town-led Events
- Farmers Market Activities
- Group Walks

The following program ideas received the most votes during the Public Input Session:

- 1) Group Walks (Friendly Competition)
- 2) Youth Activities (Park Programming)
- 3) Town Led Events (Pride and Beautification)
- 4) (Tie) Public Safety (National Night Out)
 & Farmers Market Activities (Walking Incentive)

Overall, Town Led Events and Group Walks drew the most votes. Community Engagement drew the least votes. However, participants throughout the public input process for the Allendale Pedestrian Plan acknowledged the need to identify community partners and program leaders that can engage the broader community to implement ideas.

Identifying community stakeholders and building community engagement will be crucial to the plan's success.





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III. EXISTING CONDITIONS ANALYSIS

A good sustainability and quality of life indicator: The average amount of time spent in a car. - Paul Bedford

OVERVIEW

This chapter provides an overview of the existing conditions that impact pedestrian safety and accessibility in Allendale. Fieldwork, in combination with quantitative analysis, create a more complete picture of the pedestrian environment that exists in Allendale, and informs specific recommendations for improving that environment. The following sections describe the information gained and critical outcomes of that process:

- Analysis of Opportunities and Constraints
- Pedestrian Safety Analysis
- Equity Analysis
- Healthy Food Access Analysis
- Active Space Analysis

ANALYSIS OF OPPORTUNITIES AND CONSTRAINTS

During the multi-day visit in January, the project team conducted thorough, on-the-ground fieldwork. This research included an inventory of intersection conditions, a photographic inventory, and on-foot exploration of Allendale's neighborhoods, parks, and downtown core. The purpose of this research was to identify opportunities for connections between neighborhoods, key destinations, healthy food outlets, and recreation areas with active spaces. The following sections provide an overview of the opportunities and constraints that exist for walking in Allendale.

OPPORTUNITIES

- A strong group of community stakeholders and town leaders are working hard to improve health outcomes. Efforts include walking loops, a "health square", a seasonal farmers market, and a planned mobile farmers market.
- University of South Carolina Salkehatchie is a tremendous asset and potential partner for the town. USC Salkehatchie provides jobs and an energetic group of young residents that are invested in making Allendale a better place to live. Further, those college students can contribute to and sustain the town's vibrancy by staying in the town after graduation. Many Allendale residents also use the campus as a recreation hub – the campus loop road is well-used by bicyclists and pedestrians.

- The University Mile Project promises to transform the one-mile corridor of Highway 301 from downtown Allendale to the USC Salkehatchie campus into a pedestrianfriendly streetscape. This DOT project presents a unique opportunity to input this Plan's recommendations and inform design decisions.
- The scale of Allendale is very conducive to walking. The town size is relatively a one mile radius, enabling pedestrians to reach key destinations like the IGA grocery store and parks within a 20 minute walk.
- Historic structures along key corridors lend Allendale a unique character reminiscent of Route 66. Some of these older buildings and vintage motel signs have been preserved, and many more can be restored or repurposed. The Town of Allendale owns several properties in downtown with plans to add housing and retail.
- Allendale has wide, tree-lined boulevards
 with large grassy medians on residential
 streets. The trees create shaded sidewalks,
 which are typically separated by a large
 buffer from the street. This makes for
 pleasant neighborhood walking conditions,
 and the medians allow pedestrians to easily
 cross busier roads.
- Existing planning documents recognize the need for streetscape beautification efforts and pedestrian enhancements. Focusing on the redevelopment of vacant spaces and parking lots to activate streets and bring more businesses to Allendale's core will be critical to improving quality of life in the town.

CONSTRAINTS

- Many vacant storefronts and empty lots within the downtown core result in few destination options for residents and visitors.
- Perception of crime prevents many Allendale residents from walking, especially at night. There are few streetlights to improve safety, and few people or activities in the downtown area to deter criminal activity.
- The two primary commercial corridors Highway 278 and Highway 301 – are wide streets with fast-moving traffic and few safe pedestrian crossings. Key destinations such as the library and grocery store are located along these corridors, and the narrow sidewalks, high vehicle speed limits, lack of curb cuts, and lack of crossings create accessibility challenges.
- Difficult railroad crossings mean residents in some neighborhoods have to walk further to reach destinations. The railroad tracks run through the heart of Allendale. These tracks established the town as an early settlement and provide economic connections today. However, the tracks also separate parts of town and reduce connectivity.

- Streetscape and sidewalk maintenance needs are not being addressed. While the overall condition of existing sidewalks is good, many walkways are not kept clear of debris or shrubbery. Similarly, landscaped medians are poorly maintained but are integral to the livability of Allendale's neighborhoods. Little public information is available regarding sidewalk maintenance responsibility.
- There are large gaps in the sidewalk network, particularly within neighborhoods. Curb cuts are present in few areas, which makes accessibility difficult for people with disabilities.
- Amenities are not concentrated in one area of downtown, so identifying areas for infrastructure improvements is not straightforward. Focus areas will need to include both destinations that draw pedestrians and locations where people would like to walk.
- Schools are located a few miles from downtown Allendale. The schools are located on Highway 278 between Allendale and Fairfax, a route currently difficult to reach safely by foot or bike. Additionally, there are currently no Safe Routes to School projects or programs in Allendale County.

SITE SPECIFIC OPPORTUNITIES AND CONSTRAINTS

The following photo inventory presents opportunities and constraints identified during field work. Observed opportunities are shown with **green** borders and constraints are shown with **red** borders.



Allendale has **abundant landscaped boulevards and wide landscaped medians.** This makes for **pleasant streetscapes and a unique sense of place** while setting an example for future streetscape improvements on major corridors.



Highway 278 and Highway 301 are the **two main corridors which contain many of Allendale's key destinations**, including schools. These wide high-speed thoroughfares **can be re-designed to allow for expanded sidewalks, ADAcompliance, and safer vehicular speeds.**



Historic buildings line the corridors of downtown Allendale. Many are currently vacant but present adaptive reuse possibilities.



A CSX rail line splits the center of Allendale and prevents safe, convenient pedestrian access from one side of town to the other, particularly to the grocery store and farmers market.

SITE SPECIFIC OPPORTUNITIES AND CONSTRAINTS (CONTINUED)



Winthrop Park is one block from Allendale's main commercial street and is easily accessible to many residents. **Opportunities exist to better connect residents to Winthrop Park with sidewalks and lighting.**



Heavy log truck traffic makes for an unsafe and unpleasant pedestrian experience along a number of key corridors throughout the town, including Pine Street, Route 125, Highway 301, and Highway 278.



Short stretches of **well-designed streetscapes in the downtown core** set a great example for future improvements. **Smooth, wide sidewalks and a landscaped buffer zone with streetlights and trees make the street inviting and safe.**



Vacant lots and buildings outnumber existing businesses in many areas, and the lack of street activity further contributes to a perception that walking in Allendale is unsafe.



Allendale has an enthusiastic walking community dedicated to improving health outcomes and walkability. Recommendations can build off of previous efforts, such as this "Walk-a-Plenty" walking route.



There are few ADA-accessible curb ramps except for a handful of primary intersections. Most streets that have sidewalks do not have accessible curb ramps, which can isolate pedestrians with disabilities and exacerbate mobility issues.



Public spaces such as this plaza provide inviting areas for pedestrians to socialize and rest. By improving the streets around these public spaces, parks and plazas become more enjoyable and thus more frequently utilized places.



Few crossings exist on the major corridors in Allendale. Many residents walk to destinations such as Family Dollar and IGA, seen here. Adding safe crossings at frequent intervals along these corridors will slow traffic and improve overall safety for all road users.

PEDESTRIAN SAFETY ANALYSIS

Pedestrian fatalities are on the rise.

Between 2003 and 2012, 47,025 pedestrians were killed walking on streets in the U.S. In 2012 alone, 4,743 pedestrians died, an increase of 7% over 2011. Meanwhile, the number of vehicle drivers and passengers who died in traffic crashes declined by a third during this period. The rise in pedestrian fatalities while overall traffic fatalities declined means pedestrians now account for more than 15% of all traffic fatalities.

Pedestrian safety is a growing concern in South Carolina. Pedestrian fatalities in the state rose 23.8% between 2008 and 2012, outpacing national trends. The table below summarizes fatality figures for the state during this time.

South Carolina ranks 45th in the nation for levels of walking mode share, yet ranks 2nd in the nation for walking fatality rates. As previously mentioned, Allendale County has

a pedestrian fatality rate of 1.9 deaths per 100,000 people, compared to the state rate of 2.3 deaths per 100,000 people.⁶ While reasons for the increase in pedestrian crashes are difficult to pinpoint, demographic shifts, more people walking, and higher numbers of pedestrians on dangerous, highspeed arterials all likely play a role. A number of factors impact pedestrian safety. Visibility, driver behavior, time of day/year, access to safe crossings, and traffic volume all play a role. However, key factors such as speed, the number of traffic lanes, and roadway design disproportionately affect safety for vulnerable roadway users.

According to Fatality Analysis Reporting System data, 58.8% of all pedestrian deaths in South Carolina were on arterials — wide, high speed roads rarely built with pedestrian safety in mind. Similarly, 78.8% of South Carolina's pedestrian fatalities occurred on roads with a speed limit of 40 mph or higher.⁶

	2008	2009	2010	2011	2012	% change
Pedestrian Fatalities	101	89	90	113	125	23.76%
Pedestrian Fatality Rate per 100,000 people	2.23	1.94	1.94	2.41	2.65	18.83%
Pedestrians as Percent of all Traffic Fatalities	10.97%	9.96%	11.12%	13.65%	11.6%	5.74%

Pedestrian Fatality Figures for South Carolina:

Some populations are disproportionately affected by unsafe walking conditions. Households without access to vehicles are more reliant on walking, yet often live in areas where suburban street patterns and dangerous arterial roads predominate. Older adults require more time at crossings and are more vulnerable to injury when a collision occurs. Older adults are also more susceptible to other non-collision events which do not involve a motor vehicle but which can cause injury. These "pedestrian only" events such as tripping on sidewalks and slipping on curbs, are not typically captured when discussing pedestrian safety but are important considerations in this plan.⁷

Children are also disproportionately affected by unsafe walking conditions. Children often walk to schools built along unsafe arterial or major roads, putting them at higher risk. Children also use neighborhood streets as areas to ride bikes and play games. They often go unseen by drivers though.

Nearly one-third of all Americans do not drive.

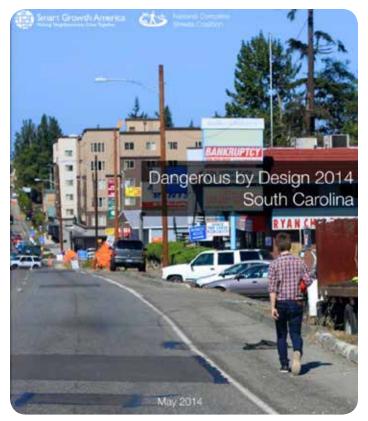
This includes all children and adolescents who are not of age, 21% of all seniors over 65 yearsold, people with disabilities, and those who cannot afford to drive.⁸

Pedestrian injuries occur at a higher rate than pedestrian fatalities. Official crash statistics, however, do not capture a significant portion of these collisions. Collisions that go unreported and near miss incidents are not reflected in most collision statistics, and thus may not be fully representative of safe walking conditions. This is especially true when accounting for whether a pedestrian injury occurred in the

⁶ Dangerous by Design - South Carolina

⁷ Federal Highway Administration Office of Safety - Bike/Ped Documents Police-reporting of Pedestrians and Bicyclists roadway (1.7 times more likely to report than non-roadway locations), the severity of the injury (1.3 times more likely to report when hospitalized), and the age of the pedestrian (ages 15-24 are significantly less likely to report a collision even after controlling for location and severity).⁷

In recent years, a series of successful national campaigns have targeted drunk driving, seat belt use, and distracted driving. For people in vehicles, the resources and focus dedicated to safety has saved thousands of lives. A similar dedication to creating safe streets for pedestrians will encourage walkability, improve health outcomes, and improve livability for all residents.



Dangerous by Design is a report issued by Smart Growth America's National Complete Streets Coalition. The Smart Growth organization also issues state-specific versions with nuanced relevant data. The report documents preventable pedestrian fatalities and details measures that can be taken to make streets safer for all road users.



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Treated in Hospital Emergency Rooms

⁸ Smart Growth America Senate Fact Sheet

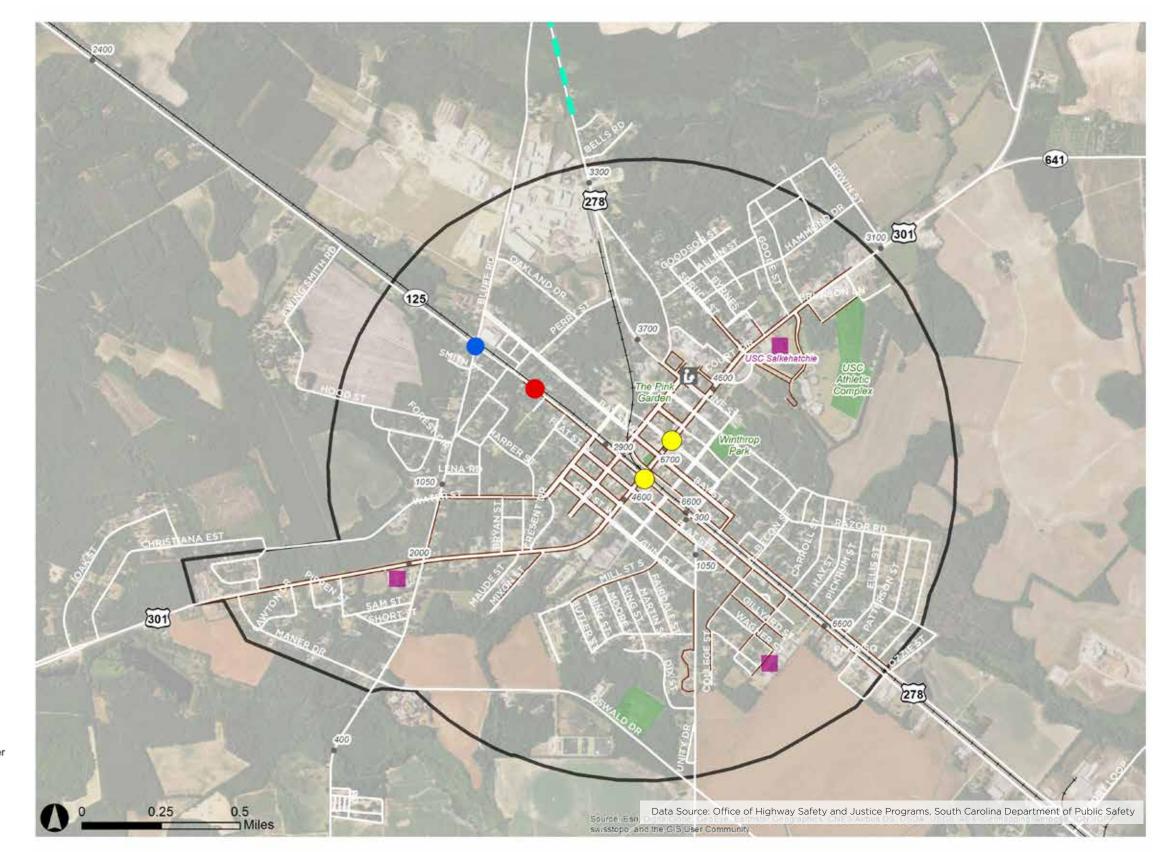
PEDESTRIAN COLLISION MAP

In addition to collecting base map data, the project team and partners created a pedestrian collision map to show where two injuries and one fatality occurred between 2010 and 2014.

The fatality occurred on Augusta Highway (Highway 125) just west of Cope Street. August Highway is a two lane road adjacent to the railroad tracks. Near where the fatality occurred there are no crosswalks and the nearest crossing over the railroad tracks is approximately 1000 feet away on Water Street.

The two reported pedestrian injuries both occurred on Main Street in downtown Allendale. One occurred on the southeast side of the intersection of East Railroad Avenue (Route 278) and Main Street (Route 301). This downtown intersection is the convergence of two main Allendale thoroughfares. There are no crosswalks on the north and east legs of the intersection, and there are mobility issues surrounding the railroad crossing. The other reported injury occurred at Butler Street (also called Esther Street) and Main Street. Despite the prevalence of sidewalks in the downtown area, there are few well-placed, highly-visible crosswalks so pedestrians are left exposed when trying to cross Main Street.





EQUITY ANALYSIS

OVERVIEW

An equity analysis provides insight about the areas of Allendale that have higher concentrations of vulnerable populations. This information, coupled with an overlay of healthy food outlet locations and active space locations, can also distinguish which neighborhoods may need improvements the most.

Thus, this quantitative analysis gave the project team a starting point for identified priority areas, however, ultimately recommendations were based on a synthesis of factors, including the equity analysis results, current best practices, public input, existing conditions analysis, and the pedestrian collision analysis,

This section describes the equity analysis process in more detail, and includes the following:

- Equity Analysis Methodology
- Equity Analysis Results
- Healthy Food Access Analysis
- Active Space Access Analysis

METHODOLOGY

The equity analysis incorporated the following seven socioeconomic criteria:

- seniors
- children
- non-white populations
- low-income households
- vehicle access
- linguistic isolation
- SNAP recipients

The measure and rationale for each criteria are further described below.

Seniors

<u>Metric</u>: senior citizens are defined as those who are 65 years old and older. This follows the 2010 *Census Brief - The Older Population*.

<u>Rationale</u>: Walkable neighborhoods help seniors remain active, healthy, social and free to move around. Older adults socialize more when living in walkable neighborhoods, because regular social interaction is possible, convenient and more frequent. In a walkable neighborhood the senior citizens are more likely to know their neighbors, participate in politics, engage socially and even trust people.

According to Center for Disease Control and Prevention survey, 32.5 percent of Americans over the age of 65 don't have regular physical activity. There are many health benefits of walking, especially for people older than 50. Elderly adults who walk are less likely to suffer mental deterioration or dementia and physical activity may actually add years to their life. Therefore, living in a walkable neighborhood gives options for walking right out your front door. A survey by AARP Public Policy Institute found that people over age 50 listed lack of walkability part of barriers to walking.

"Older adults perceive poor sidewalks, the absence of resting places and dangerous intersections as barriers to walking."

Thus, walkable environment benefits seniors, keeping mind and body healthy through their surroundings and neighborhoods.

Children

<u>Metric</u>: children are defined as individuals 14 years old and younger. This threshold was determined based on the legal age for driving in South Carolina. At age 15, young adults are eligible for a learner's permit, and after 180 days young adults are eligible for a provisional driver's license. While conditional, even a permit and provisional driver's license broaden a young person's mode of choice, and significantly increase their mobility.

<u>Rationale</u>: As parents, physicians and policy makers look for ways to curb childhood obesity, they may need to look no further than a child's own backyard. Studies show that children are less likely to be obese if they live in a neighborhood that is safe and within walking distance of parks and retail services.

The U.S. has been experiencing a growing trend in overweight and obesity among youth and children and recent evidence shows that approximately 32 percent of youth are overweight or obese. Physical inactivity impacts weight and in an effort to curb the growing obesity epidemic there is an increasing research that has examined associations between local area environmental factors and physical activity among youth. Greater availability of outdoor play/sports areas and parks, and access to commercial physical activity-related facilities have been associated with higher levels of youth and children physical activity.

Neighborhood design can also influence physical activity levels in youth and children. However, perceived environmental barriers, such as lack of access to these types of settings such as low connectivity street networks, have been associated with lower income neighborhoods. Whereas, high walkability (grid street network) neighborhoods have shown to have more physical activity and hence, less obesity among youth and children.

Non-White Populations

<u>Metric</u>: non-white is measured as the percentage of all races, excluding those that identified as white. This includes Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, or some other race.

Rationale: Communities with more racial and ethnic minorities and lower-income residents often lack specific features that support walking, such as clean and well-maintained sidewalks, trees and nice scenery and safety. Such deficits may undermine the generally favorable effects of walkable neighborhood design. The presence of parks, open space and other recreational facilities is consistently linked with higher physical activity levels among children and adolescents. However, many studies show that lower-income groups and racial and ethnic minorities have limited access to well-maintained or safe parks and recreational facilities, and more crime and traffic.

The low leisure-time physical activity rates and high risk of obesity among racial or ethnic minority children, and those living in lowerincome areas, can be partially explained by their generally poor access to parks and private recreation facilities. In light of this growing evidence, policy makers should pursue strategies that improve walkability, access to parks, green space and recreational facilities, and neighborhood safety.

Low-Income Households

<u>Metric</u>: low-income is measured as the percent of the population living below two times the federal poverty level. 2015 Federal Poverty Guidelines identified \$48,500 as the threshold for a four-person household. American Community Survey (ACS) data groups income by increments of \$4,999 so this analysis captures all household incomes at or below \$49,999.

<u>Rationale</u>: The U.S. Department of Housing and Urban Development (HUD) defines low income households as households earning less than 80% of the Area Median Income (AMI). Very low income households earn less than 50% of AMI.

These groups of people are the least likely to have access to a car and may depend on walking to reach work, school, public transportation, or other destinations. People with lower incomes are more likely to live in areas with high crime rates, perceive their neighborhoods as less safe, and report physical and social disorder in their neighborhoods, such as broken windows, litter, graffiti, loitering and public drinking. These environmental variables may be why, in some cases, a higher proportion of lower-income children tend to be less active than their peers, overweight or obese. Walkable and safe access to healthy food outlets would support both nutrition and physical activity needs of low-income populations.

Vehicle Access

<u>Metric</u>: Vehicle access is measured from a question on the American Community Survey about whether a household has access to a car, truck, or van of 1-ton capacity or less.

<u>Rationale</u>: Access to private vehicles can be an indicator of mobility and access, particularly access to healthy food options and active spaces.

Linguistic Isolation

<u>Metric</u>: Linguistic isolation is measured as percentage of households in which those over the age of 5 speak English "not well" or "not at all". <u>Rationale</u>: Households that are linguistically isolated may have greater difficulty accessing services that are available to fluent English speakers, such as transportation services and social services.

SNAP Recipient

<u>Metric</u>: SNAP recipients measures the percentage of households who have received SNAP assistance in the past 12 months..

<u>Rationale</u>: Current regulations require food retailers who accept SNAP to stock three varieties of foods in each of the following four food groups: fruits and vegetables, dairy, breads and cereals, and meat, poultry and fish. While a new rule requiring seven varieties in each food group was proposed in February of 2016, SNAP recipients still travel farther to access their food and are more likely to be affected by diet-related diseases, Additionally, only 0.02% of SNAP funds are redeemed at farmers markets indicating limited outreach and education efforts aimed at attracting households that receive SNAP assistance.

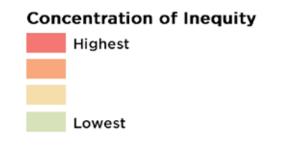


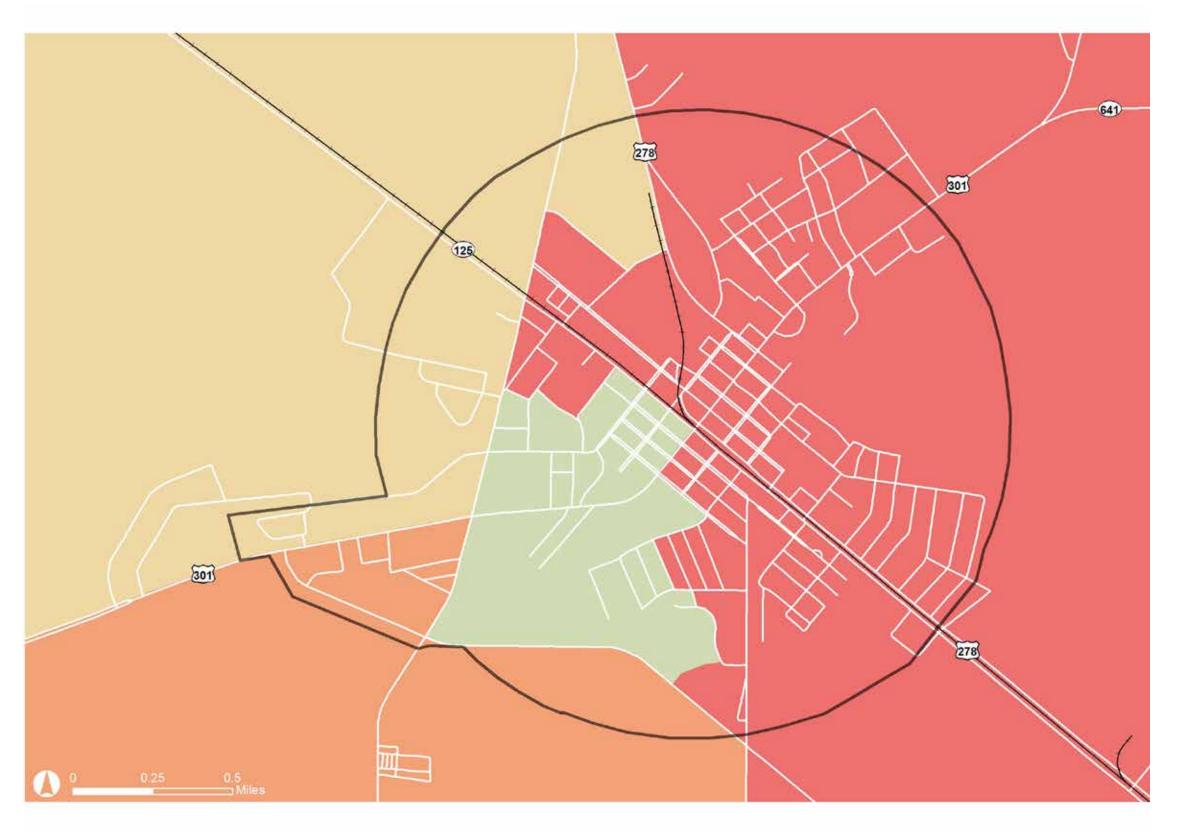
COMPOSITE EQUITY MAP

The adjacent map reflect the areas of Allendale with greater than average concentrations of the seven vulnerable populations.

The red equity tier represents a highly inequitable area, thus an area requiring more need and thus a priority area. This area spans the entire eastern half of the town - almost half of Allendale is considered highly inequitable.

Maps of the individual socioeconomic criteria can be found in the Appendix.





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HEALTHY FOOD ACCESS ANALYSIS

OVERVIEW

Walkable and safe access to supermarkets, grocery stores, farmers markets, and specialty markets is important, because they give consumers access to a variety of fruits and vegetables. Diets rich in fruits and vegetables offer a number of health benefits and have been linked to a lower prevalence of obesity.

Most Americans, especially those with a low income, consume far fewer fruits and vegetables than recommended by current dietary guidance. Communities with limitations in resources, disposable income, language proficiency, and transportation often have restricted access to, and knowledge about, a variety of healthy food options.



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23.5 million people in America lack access to a supermarket within one mile of their home 0

While there is general agreement that consumption of fresh, healthy foods such as fruits, vegetables, and whole grains are necessary for health and nutritional well-being, many communities across the region have negative health and economic consequences caused by a lack of access to high-quality food. Grocery stores, farmers markets, and community gardens tend not to be as readily available to people in low-income, low-access communities. The result is an over-dependence on neighborhood convenience stores with limited offerings of fresh foods sold, frequently for a high price,. This leads to myriad health and nutritional and long-term sustainability implications.

Therefore, creation of active transportation routes such as sidewalks, pedestrian malls, and bicycle paths between all neighborhoods and grocery stores, farmers markets, or other healthy food outlets can ease this disparity in accessibility, and help lower rates of chronic disease and lower levels of obesity.

HEALTH RISKS

Specific health risk data at the town level does not exist, however, county level data show that:

- 40% of adults in Allendale County are obese. This is 8 percent higher than the state rate of 32%. (Obesity is measures as a Body Mass Index [BMI] greater than 30.) Projections for adult obesity rates are only getting worse in Allendale County.
- 24.3% of Allendale County children are obese. This is almost 8 percent higher than the state rate of 16.7%. (Children are measured as those between the ages of 2 and 17.)
- 42.7% of adults consume less than one serving of fruit per day in Allendale County.
- Nearly **17% of adults have type 2 diabetes** in Allendale County.
- Diabetes is the fourth leading cause of death in Allendale County. The county ranks first for diabetes mortality in the state.

Allendale County is considered one of the CDC's (CDC) "Diabetes Belt" counties. According to the CDC:

People who live in the diabetes belt are more likely to have type 2 diabetes than people who live in other parts of the United States. People who do not already have diabetes can reduce their risk by being physically active and, if they are overweight, losing weight. Obesity and inactivity account for nearly a third of the increased risk for type 2 diabetes that scientists noticed in people living in the diabetes belt.



FOOD RETAIL ENVIRONMENT

Food security, as a determinant of health, contribute to health status. Food security addresses the affordability, availability and accessibility of healthy foods. In Allendale, many residents are food insecure and more likely to have a poor diet. Poor diet significantly contributes to heart disease, obesity, diabetes, some cancers and stroke.

Allendale has one full-service grocery store, IGA. The town also has a seasonal farmers market and a seasonal community garden. While residents have a grocery store within the town limits, a large number of residents purchase groceries from the Family Dollar, a discount variety store. It is common for these type of retail outlets to sell pre-packaged and processed foods in both non-perishable and frozen packages. These types of foods are more likely to have higher amounts of fat, sodium, sugar and calories. However, it is less likely these stores sell fresh and nutritious foods. Family Dollar's popularity is likely attributed by its affordability and accessibility.

The adjacent table details the local food retail environment. There are a total of 3 healthy food retail establishments in Allendale. However, only one is available year-round. Since there is only one grocery store, it serves the entire town's population.

During the community workshop, residents expressed concern on the viability of the grocery store. Residents complained of the poor quality produce. Many residents who have the resources, travel to other towns for healthy food options. These towns are almost 20 miles away.

Summary Table of Allendale's Food Retail Environment:

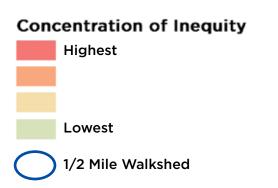
Number of Food Retail Establishments (FRE)	3 (1 year round)		
Number of People/FRE	1,109		
Square Miles/ FRE	0.33		
Number of Grocery Stores	1		
Number of People/Grocery Stores	3,328		
Square Miles/ Grocery Stores	3.3		
Healthy Food Outlet Density	0.9 (0.3 year round)		

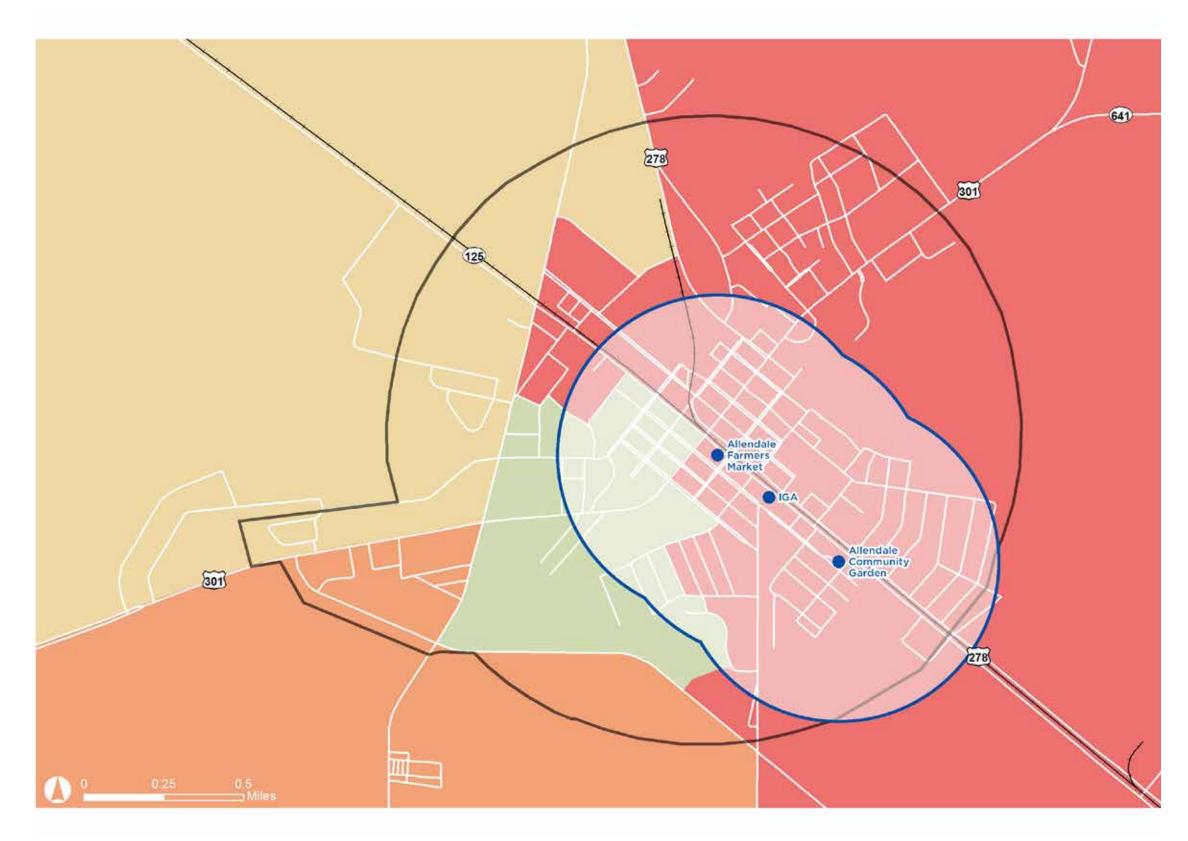
HEALTHY FOOD ACCESS ANALYSIS MAP

The results of the Composite Equity Analysis are combined with a mapping study of the locations and walkability of healthy food outlets. Healthy food outlets are defined to include all grocery stores, farmers markets, and community gardens. The farmers markets and community garden are seasonal so this is a limitation in the dataset.

A half-mile walkshed is a widely accepted catchment area for pedestrian analyses. A half-mile is about a 10 minute walk for most pedestrians. This distance also serves as the Federal Transit Authority's (FTA's) designated catchment area for pedestrian improvements that are eligible for transit enhancement funds. This diameter presumes that, barring barriers to mobility and accessibility, individuals within the catchment area would be willing to walk to these activities and destinations. **Walksheds, in combination with equity data, assess connectivity and reveal opportunities where infrastructure improvements may have the greatest impact.**

The walkability and food access connection runs along the US 278 and focuses on the southeast section of the town. While this is located in the high risk for health inequity, one of the challenges with this location is the CSX freight line that runs along US 278. This barrier presents an access and walkability challenge to the residents in this area.



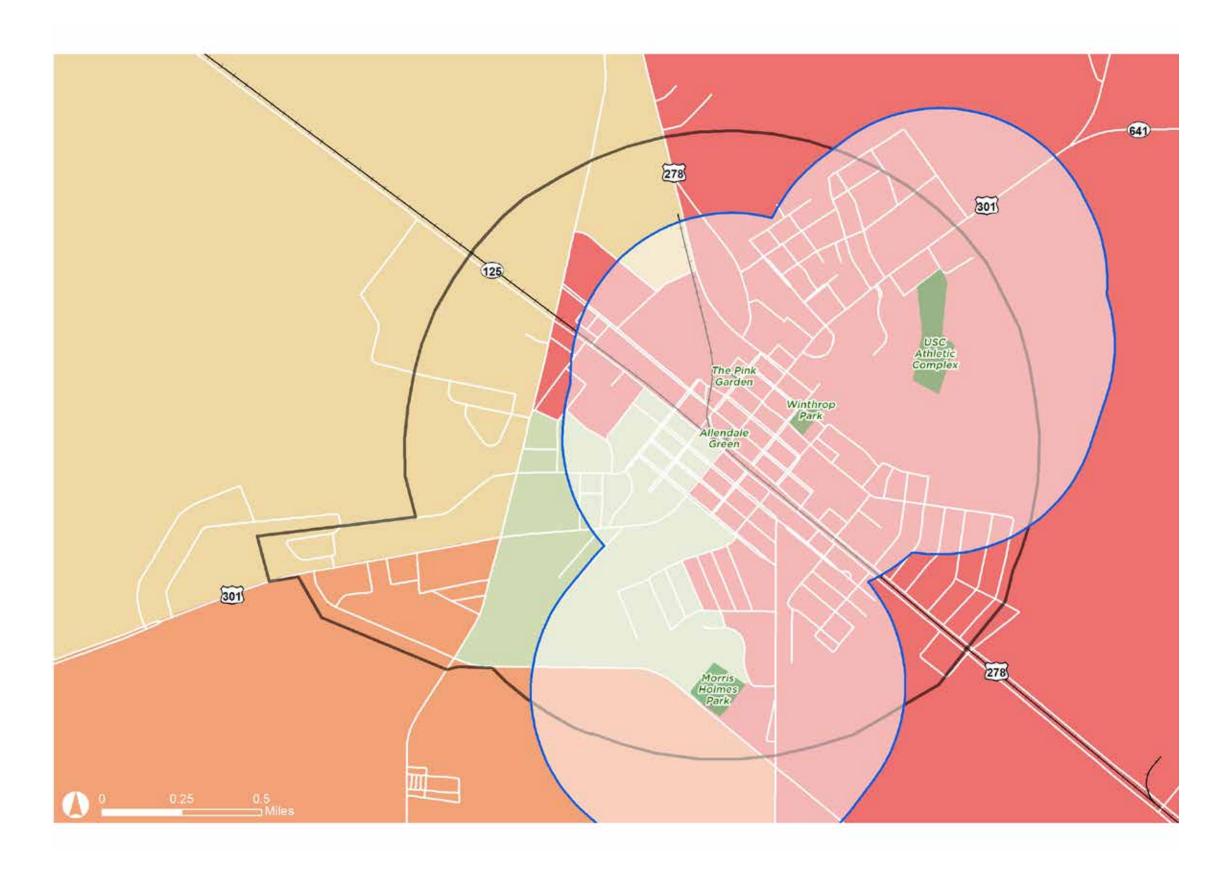


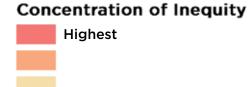
ACTIVE SPACE ACCESS ANALYSIS MAP

The results of the Composite Equity Analysis were also combined with a mapping study of the locations and walkability of active spaces. Active spaces are defined to include all existing parks and greenspace. In communities where more resources exist, trails, YMCA's, or community recreation centers are typically included.

This analysis again uses a half-mile walkshed or 10 minute walk for most pedestrians. The resulting map is a starting point for understanding how to link areas in need to active space destinations through pedestrian infrastructure improvements.

The walkability and active space access connection covers much of the town, focusing around downtown and parts in the east. However, this analysis presumes that USC facilities may be open for public use (additionally, residents use the campus road as a walking trail), and this analysis presumes that the two greenspaces - The Pink Garden and Allendale Green - have the capacity for active recreation.







Lowest

ACTIVE SPACE ACCESS ANALYSIS

OVERVIEW

Walking can be a critical form of transportation, particularly for older adults who no longer drive, young people who cannot yet drive, and for people who do not have access to a vehicle. Apart from walking as a means for transportation, however, walking serves a vital role in maintaining and improving one's health.

The CDC recommends 60 minutes of physical activity for children per day, 150 minutes of physical activity for adults per week, and 150 minutes of aerobic and muscle-strengthening activity per week. Access to exercise opportunities in Allendale County are limited. **County-level physical activity data show that:**

- Women report being less physically active than men.
- 34% of all Allendale County residents are physically inactive. This is 8 percent higher than the state rate of 26%.
- of all South Carolina counties, Allendale ranks last for health behavior.

Additionally, **data on youth physical activity show that:**

- the percent of children in poverty is 56% in Allendale County, compared to 27% for the state as a whole. This is significant because children living below the poverty line are 159% more likely to be deprived of recess.
- students who walk to school every day had
 24 more minutes of physical activity per day.

Obesity and physical inactivity rates in Allendale have consistently worsened year after year for residents of all ages. One way to reverse this trend, apart from diet and exercise, is to expand mobility options. Providing the freedom to walk to places in Allendale through safe and comfortable pedestrian facilities supports a healthy lifestyle. In turn, this boosts not only the town's physical activity level, but also increases mobility, accessibility, and quality of life for all citizens.





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IV. PROGRAMMATIC RECOMMENDATION

Allendale



Thursday-Friday: 11am-4pm Saturday: 10am-3pm

Walk and be happy, walk and be healthy. The best way to lengthen out our days is to walk steadily and with a purpose

- Charles Dickens

OVERVIEW

Programs can leverage Allendale's creativity, existing resources, leadership, and community spirit to build interest in walking. Program recommendations can be implemented quickly and with minimal investment. Additionally, programs provide a clear direction for the Walk Allendale Stakeholder Group to generate immediate progress and short-term goals. While the Town and its agency and jurisdictional partners (namely SCDOT, the County, and LSCOG) are responsible for infrastructure projects and policy development, community programs can and should be supported and championed by outside partners such as nonprofits, advocacy groups, foundations, private sector businesses, and interested citizens. Successful programmatic efforts are flexible and can demonstrate sustainable longterm infrastructure improvements.

Research has shown that a comprehensive approach to walk- and bicycle-friendliness is more effective than a singular approach that would address infrastructure issues only. Recognizing this, the national the Walk Friendly Community program, administered by the National Center for Walking and Bicycling, recommends a multi-faceted approach based on the following five 'E's: Engineering, Education, Encouragement, Enforcement, and Evaluation. Also, a sixth 'E', Equity, is often included in order to ensure equal consideration for those whom pedestrian improvements may benefit the most.

The programmatic recommendations outlined in this chapter are organized according to six distinct categories but represent and incorporate the education, encouragement, enforcement, and equity components of this multi-faceted approach. Infrastructure recommendations, described in the following chapter, represent the "engineering" element. The appendix provides a summary of recommended strategies for remaining "Es" through policy concepts.





Group Walks

Group walks are fun ways to engage community members from a variety of ages and backgrounds.

These group activities can range from a guided walking tour of local gardens or historic sites to a neighborhood walk to the farmers market. The focus of each walk is to show that walking is enjoyable, is a social activity, and can be an easy way to get from one part of town to the other.

After the walk, residents may be surprised to learn that they traveled more than a mile by foot - organizers can take advantage of this opportunity to reinforce the point that walking for everyday trips is possible, since Allendale is less than two miles from end to end.

Issues addressed

- + Social cohesion + Safety in numbers
- + Public health
- + Neighborhood stability





Neighborhood Walking Competition

This friendly competition challenges Allendale neighborhoods to out walk their neighbors by logging the most steps on foot. Designated "neighborhood walk leaders" organize regularly scheduled group walks and keep track of the miles walked by participating residents. Rewards may be offered as incentives to the winning neighborhood.



ıstin Fit Walking Program

PROGRAM RECOMMENDATIONS

HOW TO:

Implementation Strategy

- » Create a time frame, a method to keep track of miles, and rules for participation
- » Develop promotional materials to get the word out, including flyers
- » Consider offering a reward for the winning neighborhood
- » Elect 'walk leaders'
- » Promote the walk competition!

Potential Partners

- » Neighborhood Associations
- » Allendale County Health Department

Resources

» MeetUp.com, American Heart Association, activity tracking devices like fitbit





Public Safety

Public safety events that build trust between residents and law enforcement can foster an environment where people feel safe walking during the day and at night in Allendale. The purpose of public safety events is not only to reduce crime, but to improve perceptions of public safety, to increase enforcement, particularly of right-of-way laws, and to create an ongoing dialogue between law enforcement and community members.

Specific event ideas include walk vigils that recognize and show support for crime victims, and festivals that involve police officers and community members in fun activities. At these events, police can share information about local crimes and inform residents on how to be vigilant. Residents can also share their concerns and identify where more police presence is needed.

Issues addressed

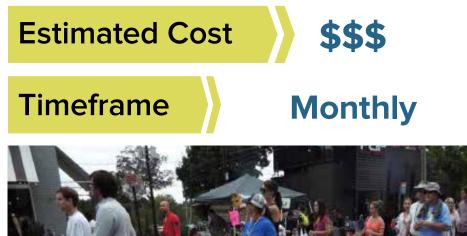
- + Neighborhood crime
- + Pedestrian safety concerns
- + Trust and information sharing





'Open Streets' event during 'Friday Night Out'

Open street initiatives temporarily close the streets to automobiles so people may use them for various activities like walking, bicycling, dancing and other social activities. These events are great at bringing the community together and promoting transportation options, placemaking, and public health.



"Atlanta Streets Alive"

PROGRAM RECOMMENDATIONS

HOW TO:

Implementation Strategy

»Work with the Allendale Police department and neighborhoods to determine best streets to close

»Contact community partners, businesses, or interested citizens to host activities (like a bike safety rodeo or dance party) as part of the Open Streets event

»Promote the event

Potential Partners

»Neighborhood Associations

» Allendale Police Department

Resources

»National Night Out

»Safe Routes to School Resource Center





Youth Activities

Creating youth activities means investing in Allendale's future. Youth programming provides opportunities for young residents to have a stake in their community while supporting a healthy lifestyle.

Sport competitions in public parks and streets closed to traffic to encourage use of those spaces can increase pedestrian activity. Similarly, park programming and student-led community gardens can utilize abandoned or vacant spaces. This encourages Allendale's youth to engage with their community while activating public spaces and improving walkability.

Issues addressed

+ Provides youth a stake in revitalization efforts

+ Improves health outcomes

+ Builds community engagement for all ages





Basketball Tournament Fundraiser

The need for improvements and access to Winthrop Park, as well as the need for more spaces where young people can be physically active were two issues stressed during the public input process. An organized basketball tournament at Winthrop Park that doubles as a fundraiser will address both needs and can be a recurring event.



PROGRAM RECOMMENDATIONS

HOW TO:

Implementation Strategy

- » Set a date for the tournament that fits with school schedules
- » Identify specific park improvements that are needed and estimate costs
- »Set a fundraising goal and explain how the \$ raised would fund park improvements
- »Contact the USC -Salkehatchie recreation department and Allendale County Schools to organize teams and registration
- »Develop a list of rules and find referees

Potential Partners

- » USC Salkehatchie
- » Allendale County Schools
- » Allendale Parks Department

Farmers Market Activities

The Allendale Farmers Market is an easily accessible, centrally located resource of healthy food options for community residents. Building on this resource to make it more pedestrian-friendly means more customers arriving on foot to purchase fruits and vegetables, thus contributing to the local economy and supporting a healthy lifestyle.

Farmers market activities include walking incentive programs which motivate people to walk, and events that take place at the market, such as walking tours, healthy cooking classes, or yoga. The market also presents an opportunity to share information on local events and causes, and to find volunteers for projects and programs related to walkability in Allendale.

Issues addressed

- + Reinforces walking as a positive behavior
- + Increases access to healthy food
- + Promotes the market as a safe gathering space





Walk to the Farmers Market Incentives

Walk rewards programs support community health goals by incentivizing shoppers with discounts, gifts, or shopping points to visit the market on foot or by bike. Reward programs also benefit local vendors and support economic vitality by opening parking spaces for other customers and encourage more foot traffic around the market and downtown.



PROGRAM RECOMMENDATIONS

HOW TO:

Implementation Strategy

- » Survey market shoppers to identify incentives likely to increase walking or biking
- » Identify a market liaison to coordinate with the market
- » Develop promotional and marketing materials
- » Advertise incentives to current and potential shoppers
- » Develop a membership program to track success

Potential Partners

- » Allendale Farmers Market
- » Allendale County Health Department

Resources

»Pedestrian and Bicycle Information Center -9 Ways to Get Others Walking



Activating Citizens & Spaces

In addition to providing enjoyable opportunities for public engagement, **Allendale citizens must have effective means of communicating their needs and effective means of learning how to get involved.** This includes accessible online and printed information that is available to all residents.

To prevent "planning fatigue," temporary installations or pop-up projects can make use of Allendale's creativity and existing resources to demonstrate walkability improvements, while engaging residents in the design and build process. These temporary demonstration projects can vary greatly in scope, cost, and number of volunteers required. Examples include temporary wayfinding signs, community chalkboards, and pop-up plazas, parks, or parklets.

Issues addressed

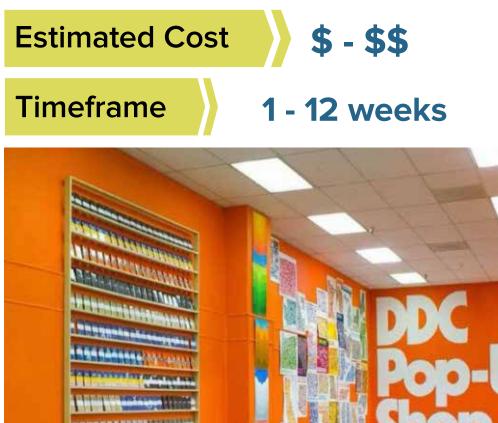
- + Communication reach
- + Expense of full project build out
- + Community engagement





Vacant Space Revitalization

Redeveloping the many vacant lots, empty buildings, and underutilized spaces in downtown Allendale can be challenging without significant investment. However, they present abundant opportunities for temporary improvements using existing resources, creativity, and volunteer labor. A Vacant Space Revitalization Program can transform these spaces into destinations and kickstart a movement of reinvesting in downtown to make it a thriving hub of activity.



Portland - Pop-Up Shop

PROGRAM RECOMMENDATIONS

HOW TO:

Implementation Strategy

- Form a diverse group of people to identify spaces to revitalize and organize volunteers
- Develop a vision for those spaces with community input
- » Convey the vision to property owners to get approval
- » Organize an action plan and list of materials
- » Set a date for the transformation and invite the community!

Potential Partners

- » USC Salkehatchie
- » Downtown businesses
- » Places of worship

Resources

» The Tactical Urbanism Materials Guide



Town-Led Events

Everyone benefits when community leaders and citizens work together to develop walk-friendly

initiatives. The Town of Allendale leadership plays a key role in promoting community-led events that get people walking for transportation, exercise, and fun. Additionally, grassroots efforts can gain a stronger footing with support from the town.

The town can also attract funding and outside interest through creative health and economic development programs that get people walking and improve the comfort and enjoyment of walking, such as streetscape beautification efforts.

Issues addressed

- + Connections between town leaders and citizens
- + Perception that leadership takes initiative
- + Political and financial support for activities





Beautification and Cleanup Effort An annual cleanup and beautification initiative organized

An annual cleanup and beautification initiative organized by the Town would enable neighborhoods to improve their surroundings and take pride in their community. The Town can support neighborhood cleanup by providing materials such as trash bags, maps of cleanup routes, and tools to prune overgrown bushes and trees that impact walkability. The Town can also support the beautification effort by adding planters and flowers that double as traffic calming along key corridors.



PROGRAM RECOMMENDATIONS

HOW TO:

Implementation Strategy

- Identify a funding strategy for cleanup and beautification, with maintenance included
- » Set a date and post flyers alerting residents to the initiative
- Work with neighborhood leaders to distribute cleanup supplies
- Identify public-private partnerships for beautification efforts on major downtown streets
- Prioritize different areas and beautification programs each year

Potential Partners

- » Allendale Public Works
- » Allendale Mayor and City Council
- » Local hardware and garden supply stores



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V. INFRASTRUCTURE RECOMMENDATIONS

The conventional wisdom used to be that creating a strong economy came first, and that increased population and a higher quality of life would follow. The converse now seems more likely: creating a higher quality of life is the first step to attracting residents and jobs.

- Jeff Speck Author of Walkable City

OVERVIEW

The following sections detail priority pedestrian infrastructure recommendations for the Town of Allendale. The intent of these recommendations is to present a vision of walkability priorities, ensuring citywide accessibility and mobility for pedestrians of all ages and abilities. Improvements focus on making walking safer and a more enjoyable experience to increase the overall quality of life for residents of and visitors to the Town of Allendale. To achieve such a vision, the recommendations are organized as follows:

- Photo Glossary of Improvements A gallery of general improvements tailored to Allendale that will build a pleasant pedestrian experience.
- Crossing Recommendations A general explanation of improvement types, a list of proposed spot improvement locations, and a map.
- Corridor Recommendations A general explanation of improvement types, a list of 6.1 miles of proposed corridor improvements, and a map.
- Project Cutsheets These spreads are intended to convey what recommendations can look like to residents and stakeholders, as well as assist in applying for implementation funds. The project cutsheets identify two corridors - Highway 301 and Highway 278 - which are crucial catalysts for economic development and quality of life.
- **Summary Table** A list of recommended corridor projects, with mileage and a description of improvement type.

While these infrastructure recommendations are considered priorities for Allendale, the Town should remain opportunistic and flexible. New developments, roadway reconstruction projects, and regularly programmed maintenance programs should not preclude other improvements from happening.

The recommended facility types described herein are based on national best practices for pedestrian and bicycle design and are compliant with state and national design guidelines.

PHOTO GLOSSARY OF IMPROVEMENTS









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CROSSING RECOMMENDATIONS

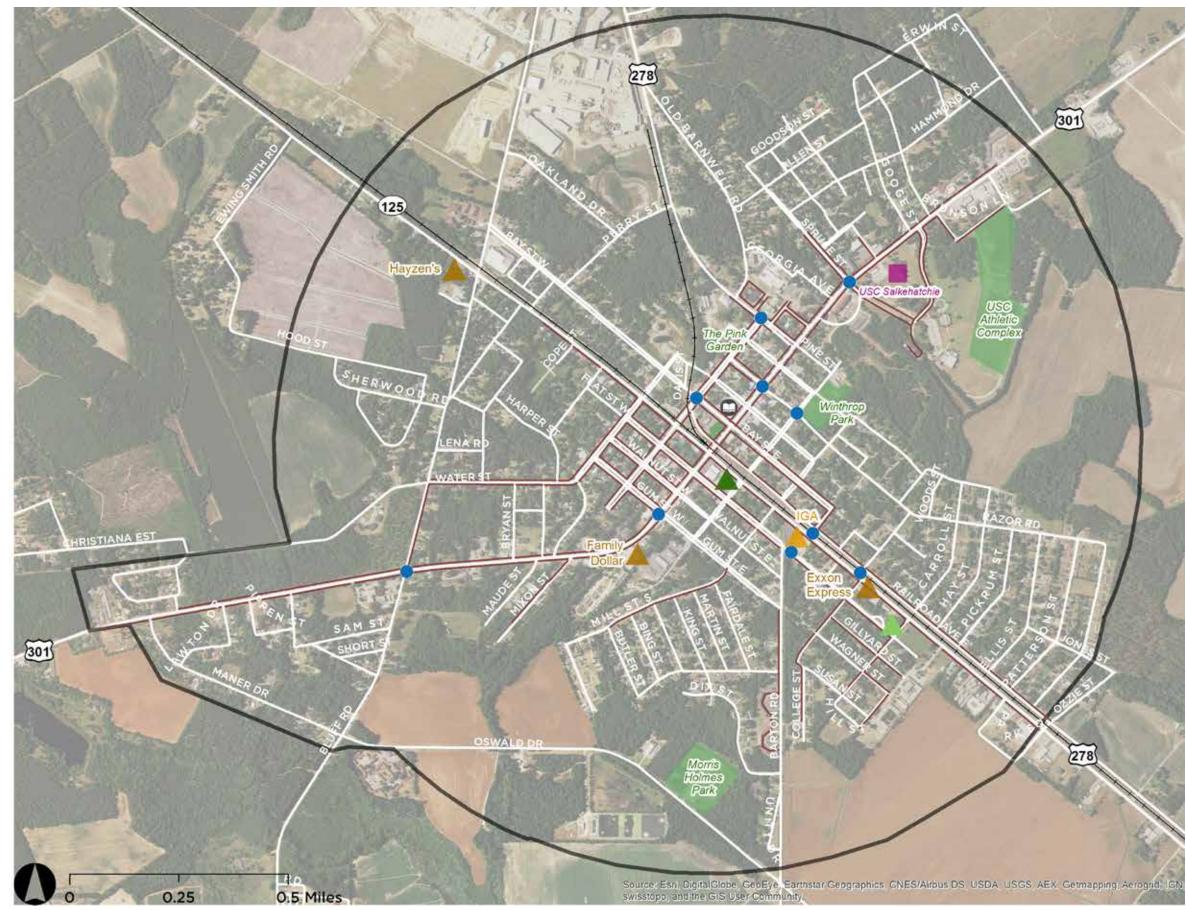
Crossing improvement recommendations address pedestrian safety, comfort, and convenience by targeting specific areas with high foot traffic and problem areas. Each identified crossing recommendation will have a host of improvements that are typical of a well-designed crossing. These improvements include:

- high-visibility crosswalk
- pedestrian push buttons
- pedestrian countdown signals
- ADA compliant curb ramps
- pedestrian warning signs
- median refuge islands for long crossings
- traffic calming

The following intersections have been identified as priority locations for crossing improvements:

- Highway 278 & Marion Street
- Highway 278 & Hampton Avenue
- Highway 301 & Razor Road
- Highway 301 & Gum Street
- Highway 301 & Bluff Road
- Highway 301 & Spruce Street
- Memorial Avenue & Barnwell Road
- Memorial Avenue & Bay Street
- Hickory Street & Razor Road
- Barton Road & Flat Street





CORRIDOR RECOMMENDATIONS

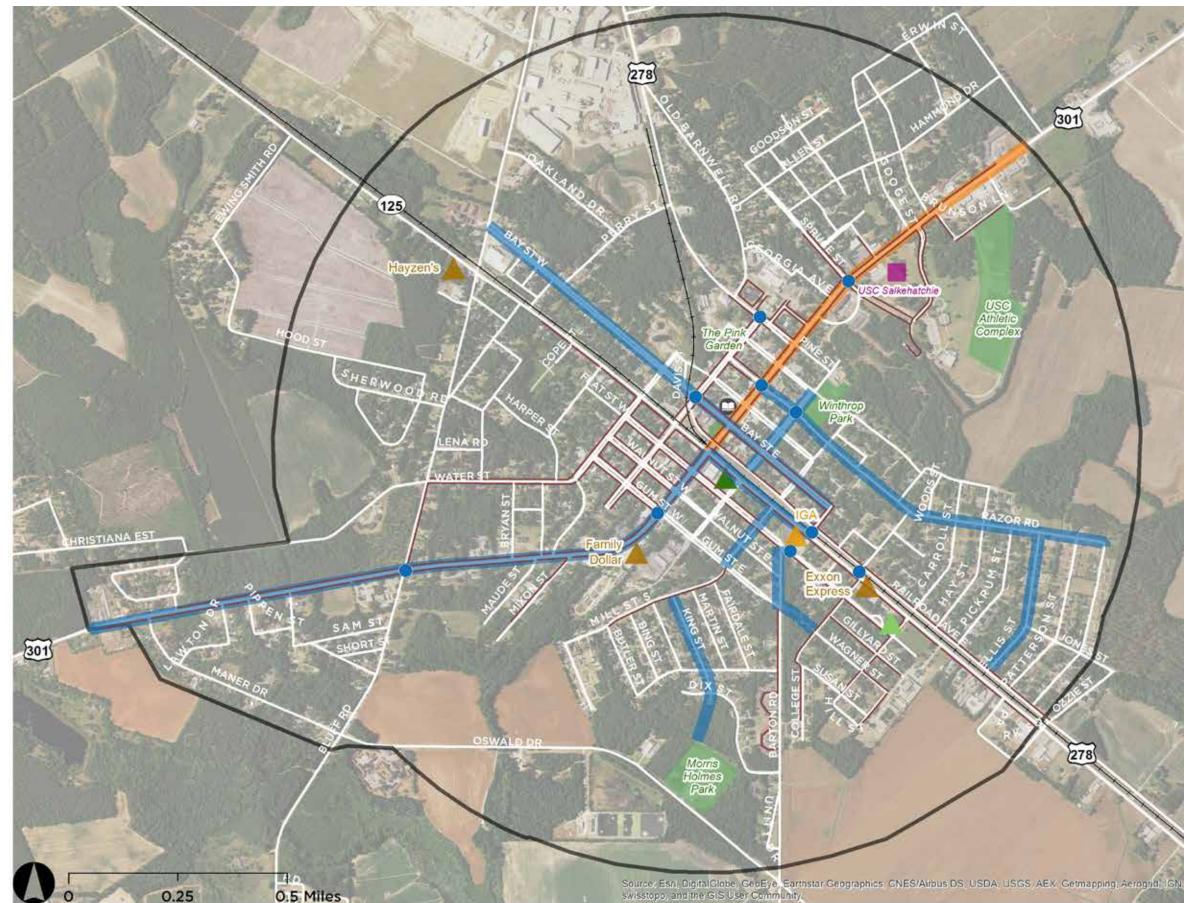
Corridor recommendations also address pedestrian safety, comfort, and convenience by looking holistically at the pedestrian experience along a stretch of the road. Typical corridor recommendations include:

- ADA compliance
- filling sidewalk network gaps
- streetscape design elements such as landscaping, street furniture, wayfinding, and pedestrian-scale lighting
- "right-sizing" the road or road diet
- traffic calming

The following corridors have been identified as priorities:

- Highway 278
- Highway 301
- Razor Road
- Bay Street
- Hickory Street
- Barton Road
- Memorial Avenue
- King Street
- Mill Street
- Ellis Street







AT A GLANCE > As Allendale's Main Street, Highway 301 serves as the town's primary north-south thoroughfare and gateway into downtown. The corridor links USC Salkehatchie, neighborhoods, greenspace, and the downtown together.

Key Issues > There is a perceived divide between downtown and USC Salkehatchie Campus that discourages residents and students from walking between these two local anchors. Wide travel lanes, fast-moving cars, and a lack of safe crossings make this an uninviting space for pedestrians and bicyclists. Because few crossings exist, the corridor has a history of pedestrian crashes. The road has more traffic lanes than are needed based on traffic counts, which provides an opportunity to provide more space for pedestrians.

Implementation Strategy
Coordinate with SCDOT and LSCOG on the University Mile project. Their recommendations for Phase 1 of the University Mile project on Highway 301 may be interim solutions like striping, flexible delineators, temporary curb extensions. Phase 2 of improving this corridor should include permanent installations and further enhance accessibility for pedestrians.

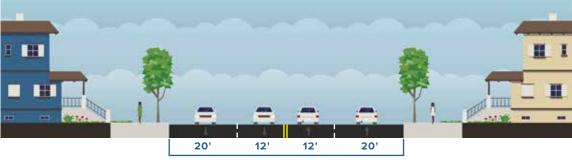
RECOMMENDED IMPROVEMENTS

Road Diet

- Curb Extensions Street Furniture
 - ADA Compliance
- Sidewalk Maintenance

EXISTING CROSS SECTION

Landscaped Median



64' ROAD WIDTH SURFACE

PROPOSED CROSS SECTION







Photosim of Highway 301 at Razor Road

CORRIDOR IMPROVEMENT



AT A GLANCE > Highway 278 is the town's main east-west thoroughfare, connecting neighborhood residents to the farmers market and local grocery store.

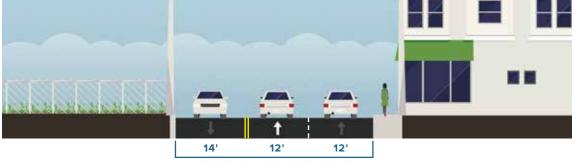
Key Issues Walking on Highway 278 between downtown and the Allendale IGA can be a perilous venture. Pedestrians are exposed to wide travel lanes with heavy truck traffic and fast-moving cars because the existing sidewalk is immediately adjacent to the road. Apart from sidewalk placement, sidewalk conditions and a lack of maintenance create additional hazards and barriers for those on foot. Highway 278 has more traffic lanes than are needed based on traffic counts, which provides an opportunity to provide landscaped medians and pedestrian refuge islands at crossings.

Implementation Strategy Right-size" the road by reallocating existing pavement width to include one travel lane in each direction, a landscaped median, a planting strip buffer between the sidewalk and road, and additional crossing locations, particularly at the IGA. Continue the streetscape design of Augusta Highway to create a welcoming corridor with a consistent identity.

RECOMMENDED IMPROVEMENTS

- Road Diet

EXISTING CROSS SECTION



40' ROAD WIDTH SURFACE

PROPOSED CROSS SECTION



40' ROAD WIDTH SURFACE





Photosim of Highway 278 at the Allendale IGA

CROSSING & CORRIDOR IMPROVEMENT

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SUMMARY TABLE

CORRIDOR	MILEAGE	SIDEWALK INFILL	NEW SIDEWALK	SIDEWALK MAINTENANCE	TRAFFIC CALMING	CROSSING IMPROVEMENTS	ROA DIE
HIGHWAY 301 (UNIVERSITY MILE)	1.02				\checkmark	@ Spruce Street @ Razor Road	V
HIGHWAY 301 (CONTINUE UNIVERSITY MILE)	1.53				\checkmark	@ Gum Street @ Bluff Road	V
RAZOR ROAD	0.80		\checkmark		\checkmark	@ Hickory Street	
BAY STREET	1.01				\checkmark		
HIGHWAY 278	0.30	\checkmark		\checkmark		@ Marion Street@ Hampton Avenue	
MULBERRY STREET	0.10	\checkmark					
HICKORY STREET	0.23	\checkmark					
BARTON ROAD	0.14	\checkmark				@ Flat Street	
MEMORIAL AVENUE	0.01	\checkmark				@ Barnwell Road @ Bay Street	
WAGNER STREET/BARTON ROAD	O.11		\checkmark				
KING STREET/MORRIS HOLMES PARK	0.36		\checkmark				
MILL STREET	O.17		\checkmark				
ELLIS STREET	0.35		\checkmark		\checkmark		

AD ET	NOTES
	Coordinate with SCDOT to prioritize needs and amenities
	Continue University Mile Project to city boundary on south
	Continue streetscape that exists between Highway 301 and Memorial
	Sidewalk and/or trail connection to park



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VI. STEPS FOR MOVING FORWARD

Few actions can do more to make urban areas safer, healthier, prettier, and more environmentally balanced than setting aside corridors or trails for walking, biking, wildlife watching, and just plain breaking up the monotony of cars and concrete.

- James Snyder Publisher, Environment Today

IT IS A

6 MINUTE

GROCERY

STORE

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WALK TO THE

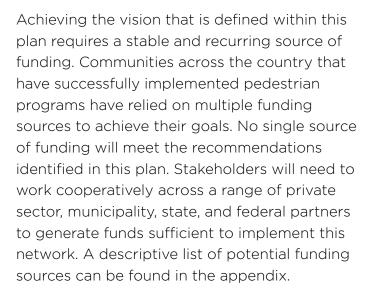
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Now that priority programs and projects have been identified, what are our next steps?

The implementation of the Allendale Pedestrian Plan recommendations will require a comprehensive approach that includes multiple sources of funding, partnerships, design, construction, and management. It will also require the dedication of town staff and a commitment to the vision established by the steering committee and this plan.

As best practices for pedestrian facility design is a rapidly-evolving field, the recommendations in this plan should be re-evaluated at least every five years to ensure that these still constitute best-practices and still reflect Allendale's longterm vision for an active, walkable community.



The resources provided herein — the pedestrian safety analysis, the access to healthy foods assessment, program and infrastructure recommendations, coupled with the following appendices resources — can serve as a daily reference material for the Town of Allendale and its implementing partners.

The Town of Allendale should strive to follow the priority recommendations, as each program, project, and policy was selected based on public input, need, and potential impact. However, the town should also look for opportunities to coordinate pedestrian enhancements with regularly-programmed maintenance activities, new developments, and large roadway construction projects, regardless of whether enhancements occur on priority corridors or intersections.



The following steps provide direction to ensure the Allendale Pedestrian Plan serves as a valuable and accessible resource for the community.

CONTINUE THE STAKEHOLDER COMMITTEE

A team effort is required to move the plan forward. The stakeholder committee process includes citizens and community leaders that can partner to make programs and projects a reality. Capitalize on this momentum, and formalize the committee as an Allendale Walkability Commission that meets quarterly, at a minimum.



PROGRAM AND FUND INFRASTRUCTURE PROJECTS

To kickstart the funding conversation, partner with LSCOG to identify eligible projects. The funding analysis included in this plan (see, appendix) provides a resource for matching grants with programs and projects. Additionally, capitalize on this plan itself to garner regional, state, and federal funding.

DEVELOP AND IMPLEMENT ONE PROGRAM AT A TIME

3

Programs have a big impact on walkability and are easy to accomplish without a major investment. A variety of community partners can assist by funding efforts or volunteering their time. Convene "Program Champions" as part a steering committee meeting to develop a list of communications strategies to promote each program and attract volunteers. Make a goal to implement each program within six months of announcing the program.



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IV. APPENDIX

Streets and their sidewalks, the main public places of a city, are its most vital organs... To keep the city safe is a fundamental task of a city's streets and its sidewalks

- Jane Jacobs Author of The Death and Life of Great American Cities

POLICY RECOMMENDATIONS

This section highlights recommended policies related to walkability, as well as existing design standards to inform decision-making about designing and implementing pedestrian infrastructure in the Town of Allendale. Local policies may serve to strengthen existing state policies. Policy recommendations also reinforce the program and project recommendations in this plan, while establishing a sustainable foundation for walkable development.

Concurrent with the Pedestrian Plan, a Redevelopment Policy is under development to establish Allendale as a vibrant and selfsustaining community for business, families, young professionals, and active retirees. Integration of the Allendale Pedestrian Plan into the overall redevelopment will further the goals of both efforts. The following practices and policies demonstrate how promoting walkability helps achieve the goals of major focus areas as outlined in the redevelopment plan Vision Statement.

COMPLETE STREETS POLICY

In 2003, SCDOT adopted a state-wide Complete Streets policy affirming that active transportation should be a integral to the design and function of its transportation system. This policy guides decision-making about the planning, design, operation, and maintenance of public streets to enable safe, convenient, and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation. A Complete Street is one that considers the needs of pedestrians, bicyclists, transit riders, and motorists.

The Town of Allendale should adopt a Complete Streets policy to bolster walkability, express public support for pedestrian-related efforts, and also to broaden funding streams and spur funding-seeking activity for pedestrian and streetscape projects.

The SCDOT Complete Streets policy should be referenced for transportation projects along state roadways in all jurisdictions.



Bird's-eye view example of a complete street in a small town. Image courtesy of the National Complete Streets Coalition Flickr account.

ON-STREET PARKING

Wide intersections and the placement of sidewalks adjacent to travel lanes make negotiation by pedestrians and cyclists difficult. On-street parking integrated into Complete Streets design can greatly improve pedestrian and bicycle crossings at intersections and serve as a buffer between traffic and bike lanes and sidewalks. On-street parking also encourages downtown visitors to park once and walk, greatly increasing the exposure of business storefronts to potential shoppers.

RESIDENTIAL MIXED-USE

High concentrations of pedestrians are the critical ingredient in downtown revitalization efforts. Areas of high pedestrian concentrations justify intense pedestrian infrastructure. Therefore, prompting more people to live in the core commercial district should be an objective.

Vacant and underutilized core commercial district buildings should be allowed to be repurposed as single family units, apartments, condominiums, townhouses, etc. Where vacant lots exist or dilapidated structures are torn down, consider the construction of new residential units designed in scale and form to blend in with the historic context of downtown. Bringing people back to downtown living greatly adds to the vibrancy of the downtown, supports downtown merchants and restaurants, and increases the opportunity for walking and bicycling to work, shopping, and entertainment.

Once a critical mass of people is approached, shops, restaurants, and offices will begin to flourish; thus drawing in more nonresidents into the downtown for shopping, dining, entertainment, etc. This process of repopulating the core commercial district has proven successful in Greenville, Charleston, and Columbia. Mixed-use downtown development conserves energy, produces less air pollution, promotes active living and good health, and encourages social interaction.

COMMERCIAL CORRIDOR DEVELOPMENT

Sensible development practices encourage people to use alternative modes of travel biking, walking or using transit - by providing safe routes to destinations. Interconnected streets reduce distances between points and make destinations easily accessible by multiple methods of travel. Although the option of driving to a destination still exists, better connections make the choice of an alternative mode for shorter trips much more appealing. In some commercial areas, connections between adjacent buildings can be so poor that patrons are forced to return to their cars, drive back out to an arterial road, travel a few hundred feet to the adjacent parking lot, and park again to reach a neighboring building.

Plan for bike/pedestrian connections between commercial corridors and residential developments and redevelopments. For corridor developments where there are no current connection opportunities to off-site development, include dedication of right of way for installation of facilities to facilitate future connections. Bicycle and pedestrian connections between parcels should be offstreet where practicable to enable pedestrian and bicycle access among the commercial establishments without having to reenter the street. Parking for commercial uses should include a pedestrian circulation pattern that allows customers to park once and visit several locations on foot. As with downtown redevelopment, making shopping strips and other commercial corridor development safely and easily accessible to pedestrian customers makes a far more pleasant shopping, dining, or entertaining experience and increases sales volumes.

NEIGHBORHOOD REVITALIZATION AND COMMUNITY DESIGN

The current development pattern of residential subdivisions results in housing units isolated from work, shops, schools, and services with no means of safe and efficient transportation available other than by automobile. Those without or with limited access to an automobile are often limited in their access to healthy foods, health care, and other essentials. The lack of pedestrian and bicycle facilities also discourages active lifestyles. Pedestrian access is key to the healthy independence of the elderly. There is a clear link between the development and design of the built environment and public health; and this link is particularly evident in the consequences of residential sprawl.

Newer residential developments throughout the region, state, and nation, are much different from older neighborhoods built prior the dominance of the automobile as the primary mode of transportation. More recent developments tend to segregate land uses, while Allendale's older residential neighborhoods included a mixture of residential, commercial and industrial land uses. along with public space for churches, parks, and community buildings. Older mixed-use developments encouraged residents to walk or bike to work, to social and recreational activities, and to visit their neighbors. When residents did travel by car, distances and travel times to essential services were relatively short. And when compared with newer developments, these older, mixed-use developments conserved energy, produced less air pollution, promoted good health, and encouraged social interaction between neighbors.

To achieve similar benefits in new developments, small-scale commercial businesses as well as churches and schools should be encouraged to locate within or near newly developed residential areas.

Small-scale commercial uses in this case are defined as businesses or offices that are manned during business hours, do not require large-scale deliveries, and do not produce excessive levels of light or noise. Examples include shops, cafes, bakeries, and other types of service businesses. Integration of such service-oriented businesses can provide community members the option of walking rather than depending on an automobile, and can result in reduced automobile traffic on the Town and County road system. Such smallscale commercial businesses also generate light daytime activity in neighborhoods, which can help to reduce crime during the hours when many homeowners are typically at work. The promotion of small-scale neighborhood commercial establishments, such as corner grocery stores easily accessed by walking or biking, can also help increase access to healthy foods where otherwise an automobile trip to a supermarket would be required. Many Allendale citizens do not own automobiles.

Similar to new development projects, redevelopment plans for older neighborhoods should include zoning allowances for the continuation and/or reestablishment of such small-scale neighborhood commercial uses. Design standards for both new and revitalized residential developments should provide for bicycle and pedestrian amenities such as sidewalks, paths, and bike lanes that will facilitate safe and enjoyable walking or biking commutes to these neighborhood commercial establishments, as well as encourage physical activity.

New residential or redevelopment plans should provide for transportation connections between the development and adjacent residential and commercial developments. Bicycle and pedestrian connections between parcels within commercial developments should be off-street where practicable.

RESIDENTIAL COMMUNITY RECREATION

Community organizations must recognize their specified needs for recreational areas. For future residential neighborhoods, it is important to determine the community's desire to include park areas within newly developed subdivisions for the use of the homeowners. Savvy residential developers recognize the value of including qualities to their development that would enhance home or lot sales.

Fifteen years ago, Market Perspectives, Inc., conducted a national survey of home owner preferences. The survey found that walking paths, bike paths, parks and nature preserves were rated as "extremely important" to home buyers and ranked higher in importance than the traditional golf courses, tennis courts, and swimming pools which are costlier for homeowners' associations to maintain. Their most recent consumer surveys and focus group interviews show that walking and biking paths remain the #1 amenity preferred by home owners followed by pocket parks, wellness programs, and fitness centers in clubhouses (should a project have a clubhouse). There has been more interest in community garden patches in the last 10 years.

In 2015, the National Association of Realtors found that 57% of people would choose a home close to a park over one that was not, and 50% of people would pay 10% more for a home located near a park.

Development incentives should be used to encourage developers to include community parks and open spaces for a win-win situation for themselves and potential home buyers. Many surveys reveal that the majority of homeowners feel that more land should be set aside for natural areas such as parks, open spaces, and forests. Such amenities promote active lifestyles that result in demonstrated health benefits. Residential development standards should be considered for all new residential developments that provide for: open space, a connected network of sidewalks, trails, paths, etc., that are accessible to all residents, and bicycle/pedestrian connection to nearby schools, services, or commercial areas.

COMMUNITY OPEN USE AND JOINT USE POLICIES

One means of providing for needed park facilities are joint use and open use agreements. Joint use agreements are formal agreements between two agencies or organizations for shared use of facilities. Open use policies are an organization's guidelines for the use of their facilities by the general public.

The Town of Allendale and Allendale County should explore entering into agreements with the Allendale County School District for open use and/or joint use of the District's sports, playground, and recreational facilities. Such agreements have been successfully used throughout the country and model joint use agreements are available through the Eat Smart Move More South Carolina website: http://www. publichealthlawcenter.org/sites/default/files/ resources/phlc-fs-shareduse-samplestatutelanguage-2012.pdf

The SC School Board Association has developed a model policy for Open Community Use of School Recreation Areas that has successfully been used by school districts throughout South Carolina: http://scsba.org/policy-services/policy-andlegal-updates/

Such agreements would allow for a more equitable distribution of facilities throughout the county and aid in achieving availability to all citizens. An equitable system includes both a geographically-equitable distribution of facilities to serve all areas of the County, and assurance that the underserved, lower socialeconomic communities have equitable access to recreation facilities. This page intentionally left blank





FUNDING MATRIX

Funder	Grant Name	Funding Description	Funding Amount	Open Date	Close Date	Funding Cycle	Notes
Aetna	Cultivating Healthy Communities	"The Cultivating Healthy Communities program will support projects that benefit underserved, low-income, and minority communities. We are interested in projects that address the social determinants of health and participants' physical, mental, social, and emotional well-being. "	up to \$100,000	20-Mar-16	April 15, 2016 (Stage 1)	N/A	Stage 1 application is due Apri 15 and if invited stage 2 application is due June 10
W.K. Kellogg Foundation		 "Focus areas include: Educated Kids, Healthy Kids, Secure Families, Community and Civic Engagement, Racial Equity. We work alongside communities - especially those facing health inequities - to support community-based approaches in four key areas: maternal and child health, oral health, breastfeeding (breast milk as the optimal first food), and continued access to good food and active living throughout a child's early development. In our national grantmaking and investments in priority places, WKKF supports efforts to improve the health of mothers and families; to increase breastfeeding rates; to provide innovative, community-based oral health care and to transform food systems so children and families have healthier foods in child care settings, in schools and in their communities." 	high: \$8,000,000; low: \$600			The Kellogg Foundation does not have any submission deadlines. Grant applications are accepted throughout the year and are reviewed at our headquarters in Battle Creek, Michigan, or in our regional office in Mexico (for submissions focused within their region).	"Once we receive your completed online application, an automated response, which includes your WKKF reference number, will be sent to you acknowledging its receipt. Our goal is to review your application and email our initial response to you within 45 days. Your grant may be declined or it may be selected for further development. As part of review process you may be asked to submit your organization's financial reports and/or IRS Form 990. While this information may be required, it is not intended to be the overall determining factor for any funding. You will not be asked to provide any financial reports or detailed budget information during this initial submission. We will only request this information later if needed as part of the proposal development."
SunTrust Foundation		The foundation supports programs designed to help generations achieve their full potential; promote job growth and financial education that leads to stability; help people get access to the care they need to live healthier lives; and advance the arts and culture in the communities.					Will need to contact someone with SunTrust; the website gives minimal information.

Funder	Grant Name	Funding Description	Funding Amount	Open Date	Close Date	Funding Cycle	Notes
Michael and Susan Dell Foundation		"Childhood Health in the US The program is working to reverse the trend of children suffering from obesity and early onset of Type 2 diabetes through its childhood obesity prevention and wellness programs that promote healthy eating behaviors, and better access to both healthy foods and safe environments for exercise. Other U.S. health initiatives focus on: 1) Applied pediatric research into the origins of chronic diseases that are a leading cause of premature death; 2) Basic health services for under- and uninsured children; and 3) Childhood safety for neglected and abused children."	high: \$1,800,000; low: \$5,000			Appears to be year around	 "Important: Please be prepared to furnish us with contact and financial information (including total revenue and fiscal operating expenses) for your organization, as well as a detailed description of the project for which you are seeking support. To complete the application, you will also need: amount you are requesting project budget the number of children your project will reach problem statement (500 character limit) project description (1500 character limit) brief description of how the requested funding will be used (500 character limit) brief description of proposed success metrics (500 character limit)" http://www.msdf.org/assets/grant- planning-worksheet-2-7-2008.pdf
Anthem Foundation	Healthy Generations Program	The foundation supports programs designed to create a healthier generation of Americans. Special emphasis is directed toward healthy hearts, including preventative initiatives that minimize controllable cardiovascular diseases and strokes, smoking, obesity, hypertension, and stressful and sedentary lifestyles; healthy cancer prevention, including lifesaving cancer-prevention and early- detection; healthy maternal practices, including initiatives that encourage first trimester prenatal care and help at-risk mothers commit to reduce the numbers of low birth-weight babies; healthy diabetes prevention, including programs that stem the spread of diabetes through lifestyle changes and physical activity; and healthy active lifestyles, including initiatives that raise awareness, education, and encourage new behaviors.			"Cycle One 2016: Applications are due no later than Friday, February 19, 2016. Cycle Two 2016: Applications are due no later than Friday, August 19, 2016. "	Applications are reviewed twice a year.	"You must submit your grant proposal online; no exceptions will be made. All applicants will be notified of the Foundation's receipt of grant proposals via e-mail. Typically, our review process lasts four to six months. Please do not call the Foundation for status updates. Due to the high volume of requests we receive, we cannot respond to such phone calls. CONTACT US anthem.foundation@anthem.com"

Funder	Grant Name	Funding Description	Funding Amount	Open Date	Close Date	Funding Cycle	Notes
Robert Wood Johnson Foundation (www.rwjf.org)	Culture of Health	"Health Systems Catalyzing fundamental changes in health and health care systems to achieve measurably better outcomes for all. Healthy Kids, Healthy Weight Enabling all children to attain their optimal physical, social and emotional well-being, including growing up at a healthy weight. Healthy Communities Creating the conditions that allow communities and their residents to reach their greatest health potential. Health Leadership Engaging a diverse array of leaders in all	Varies by grant program	varies by grant program		Check website for Call for Proposals	
Blue Cross Blue Shield of South Carolina Foundation		 Engaging a diverse array of leaders in all sectors with the vision, experience, and drive to help build a Culture of Health." Access to Care: Support adult safety net providers to provide primary physical and mental health care. Implement evidence-based or innovative delivery models to improve health Improving Health and Health Care Quality and Value: Support quality improvement projects that yield cost and resource efficiencies through innovative approaches that develop solutions in the health care delivery system Investing in SC Children: Improve health through innovative collaborations. Support projects that target childhood obesity risk factors. Increase access to mental health care needs of at-risk children and adolescents Research/Special Projects: Projects to inform, influence and support our investment strategies and/or our mission. These projects may fall outside of an established area of focus, yet would generate value-added information and vision. 				Fall Cycle begins July 1, 2016	"Apply for a Grant We have developed a two-phase approach to make the review process more effective and efficient. This approach lets us determine which programs are potentially the best matches for our investment strategies and preferred areas of focus. If you are interested in receiving funding from the Foundation, your first step is to submit the two-page Letter of Intent form. We will review it carefully. If we decide your organization is a good match, you will be able to complete the second phase. We will invite you to submit a full application."



LSCOG Bicycle and Pedestrian Regional Plan Design Guidelines

April 2012

PREPARED BY: Alta Planning + Design 108 S. Main Street, Suite B Davidson NC 28036 (704) 255-6200





Reviewed by SCDOT. Adopted by the Lower Savannah Rural Transportation Committee (TAC) April 3, 2012

Introduction

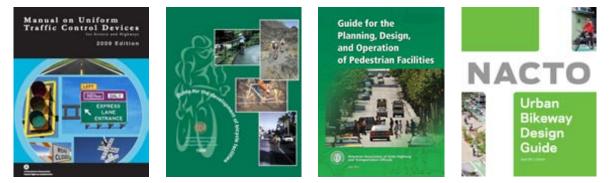
This technical handbook is intended to assist LSCOG in the selection and design of pedestrian and bicycle facilities. The following chapters pull together best practices by facility type from public agencies and municipalities nationwide. Within the design chapters, treatments are covered within a single sheet tabular format relaying important design information and discussion, example photos, schematics (if applicable), and existing summary guidance from current or upcoming draft standards. Existing standards are referenced throughout and should be the first source of information when seeking to implement any of the treatments featured here.

Guiding Principles

The following are guiding principles for these bicycle and pedestrian design guidelines:

- The walking and bicycling environment should be safe. All bicycling and walking routes should be physically safe and perceived as safe by all users. Safe means minimal conflicts with external factors, such as noise, vehicular traffic and protruding architectural elements. Safe also means routes are clear and well marked with appropriate pavement markings and directional signage.
- The pedestrian and bicycle network should be accessible. Sidewalks, Shared-use paths, bike routes and crosswalks should permit the mobility of residents of all ages and abilities. The pedestrian and bicycle network should employ principles of universal design. Bicyclists have a range of skill levels, and facilities should be designed with a goal of providing for inexperienced/recreational bicyclists (especially children and seniors) to the greatest extent possible.
- **Pedestrian and bicycle network improvements should be economical.** Bicycle improvements should achieve the maximum benefit for their cost, including initial cost and maintenance cost, as well as a reduced reliance on more expensive modes of transportation. Where possible, improvements in the right-of-way should stimulate, reinforce and connect with adjacent private improvements.
- The pedestrian and bicycle network should connect to places people want to go. The pedestrian and bicycle network should provide continuous direct routes and convenient connections between destinations such as homes, schools, shopping areas, public services, recreational opportunities and transit. A complete network of on-street bicycling facilities should connect seamlessly to existing and proposed multi-use trails to complete recreational and commuting routes.
- The walking and bicycling environment should be clear and easy to use. Sidewalks Shared-use paths and crossings should allow all people to easily find a direct route to a destination with minimal delays, regardless of whether these persons have mobility, sensory, or cognitive disability impairments. All roads are legal for the use of bicyclists (except those roads designated as limited access facilities, which prohibit bicyclists). This means that most streets are bicycle facilities and should be designed, marked and maintained accordingly.
- The walking and bicycling environment should be attractive enhance community livability. Good design should integrate with and support the development of complementary uses and should encourage preservation and construction of art, landscaping and other items that add value to communities. These components might include open spaces such as plazas, courtyards and squares, and amenities like street furniture, banners, art, plantings and special paving. These along with historical elements and cultural references, should promote a sense of place. Public activities should be encouraged and the municipal code should permit commercial activities such as dining, vending and advertising when they do not interfere with safety and accessibility.
- Design guidelines are flexible and should be applied using professional judgment. This document references specific national guidelines for bicycle and pedestrian facility design, as well as a number of design treatments not specifically covered under current guidelines. Statutory and regulatory guidance may change. For this reason, the guidance and recommendations in this document function to complement other resources considered during a design process, and in all cases sound engineering judgment should be used.

National Standards



The Federal Highway Administration's **Manual of Uniform Traffic Control Devices** (MUTCD) defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public traffic. The MUTCD is the primary source for guidance on lane striping requirements, signal warrants, and recommended signage and pavement markings.

To further clarify the MUTCD, the FHWA created a table of contemporary bicycle facilities that lists various bicycle-related signs, markings, signals, and other treatments and identifies their official status (e.g., can be implemented, currently experimental). See **Bicycle Facilities and the Manual on Uniform Traffic Control Devices.**¹

Bikeway treatments not explicitly covered by the MUTCD are often subject to experiments, interpretations and official rulings by the FHWA. The **MUTCD Official Rulings** is a resource that allows website visitors to obtain information these supplementary materials. Copies of various documents (such as incoming request letters, response letters from the FHWA, progress reports, and final reports) are available on this website.²

American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities last updated in 1999 provides detailed guidance on dimensions, use, and layout of specific facilities.

The standards and guidelines presented by AASHTO provide basic information about the design of bicycle and pedestrian facilities, such as minimum sidewalk widths, bicycle lane dimensions, more detailed striping requirements and recommended signage and pavement markings. An update to this guide is in progress, and is likely to provide revised guidance on standard facilities and new information on more contemporary bikeway designs.

Offering similar guidance for pedestrian design, the 2004 AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities provides comprehensive guidance on planning and designing for people on foot.

The National Association of City Transportation Officials' (NACTO) 2011 **Urban Bikeway Design Guide**³ is the newest publication of nationally recognized bikeway design standards, and offers guidance on the current state of the practice designs. The NACTO Urban Bikeway Design Guide is based on current practices in the best cycling cities in the world. The intent of the guide is to offer substantive guidance for cities seeking to improve bicycle transportation in places where competing demands for the use of the right of way present unique challenges. All of the NACTO Urban Bikeway Design Guide treatments are in use internationally and in many cities around the US.

Some of these treatments are not directly referenced in the current versions of the AASHTO Guide to Bikeway Facilities or the Manual on Uniform Traffic Control Devices (MUTCD), although many of the elements of these treatments are found within these documents. In all cases, engineering judgment is recommended to ensure that the application makes sense for the context of each treatment, given the many complexities of urban streets.

¹ Bicycle Facilities and the Manual on Uniform Traffic Control Devices. (2011). FHWA. http://www.fhwa.dot.gov/environment/bikeped/mutcd_bike.htm

² MUTCD Official Rulings. FHWA. http://mutcd.fhwa.dot.gov/orsearch.asp

³ http://nacto.org/cities-for-cycling/design-guide/

Local Standards

The South Carolina Department of Transportation (SCDOT) offers additional local guidance regarding the design of non-motorized transportation facilities. The primary source of state level guidane is the **SCDOT Highway Design Manual**, which provides department criteria and practices for roadway construction. This guidance includes information on sidewalks and on-street bike lanes. Engineering level guidance can be found in the **SCDOT Standard Drawings**. These documents contain typical striping and construction plans for bike lanes and curb ramps.

Additional guidance can be found in SCDOT Engineering Directive Memorandums (EDM) covering specific topics. The EDMs most relevant to the content in this guide are listed below:

SCDOT EDM 22: Considerations for Bicycle Facilities addresses shared roadways and bike lanes/paved shoulders and provides guidance on design requirements for new projects. In addition, typical sections for both the design of bicycle facilities on new projects and restriping of existing five-lane sections to accommodate bicycle facilities are attached. Other design considerations for bicycle accommodations are also discussed.

SCDOT EDM 53: Installation of Rumble Strips provides guidance on the installation of rumble strips on SCDOT's state highway system. They are used to alert drivers of land departures by providing an audible and vibratory warning. On bicycle touring routes with a high percentage of road departure crashes, rumble strips may be considered for use. In these cases the Traffic Safety Office shall coordinate with the Office of the Pedestrian and Bicycle Engineer and applicable shareholders for input on designated bike routes where paved shoulders are less than 4 feet in width.

Additional References

In addition to the previously described national standards, the basic bicycle and pedestrian design principals outlined in this chapter are derived from the documents listed below. Many of these documents are available online and provide a wealth of public information and resources.

Additional U.S. Federal Guidelines

- American Association of State Highway and Transportation Officials. (2001). AASHTO Policy on Geometric Design of Streets and Highways. Washington, DC. www.transportation.org
- United States Access Board. (2007). *Public Rights-of-Way Accessibility Guidelines (PROWAG)*. Washington, D.C. http://www.access-board.gov/PROWAC/alterations/guide.htm
- United States Access Board. (2002). Accessibility Guidelines for Buildings and Facilities. Washington, D.C. http://www.access-board.gov/adaag/html/adaag.htm

Best Practice Documents

- Association of Pedestrian and Bicycle Professionals (APBP). (2010). Bicycle Parking Design Guidelines, 2nd Edition.
- City of Portland Bureau of Transportation. (2010). Portland Bicycle Master Plan for 2030. http://www.portlandonline.com/ transportation/index.cfm?c=44597
- Federal Highway Administration. (2005). *BIKESAFE: Bicycle Countermeasure Selection System*. http://www.bicyclinginfo.org/bikesafe/index.cfm
- Federal Highway Administration. (2005). PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System. http://www.walkinginfo.org/pedsafe/
- Federal Highway Administration. (2005). *Report HRT-04-100, Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations*. http://www.tfhrc.gov/safety/pubs/04100/
- Federal Highway Administration. (2001). *Designing Sidewalks and Trails for Access*. http://www.fhwa.dot.gov/environment/sidewalk2/contents.htm
- Oregon Department of Transportation. (1995). Oregon Bicycle and Pedestrian Plan. http://www.oregon.gov/ODOT/HWY/ BIKEPED/planproc.shtml
- Rosales, Jennifer. (2006). Road Diet Handbook: Setting Trends for Livable Streets.

LSCOG Regional Bicycle and Pedestrian Study

Glossary

The following list is comprised of common terms, acronyms and concepts used in bicycle transportation planning, design and operation.

AASHTO - American Association of State Highway and Transportation Officials

Accessible route – in the ADA, a continuous route on private property that is accessible to persons with disabilities. There must be at least one accessible route linking the public sidewalk to each accessible building.

Actuated signal – a signal where the length of the phases for different traffic movements is adjusted for demand by a signal controller using information from detectors.

ADA – Americans with Disabilities Act of 1990; broad legislation mandating provision of access to employment, services, and the built environment to those with disabilities.

At-grade crossing – A junction where bicycle path or sidewalk users cross a roadway over the same surface as motor vehicle traffic, as opposed to a grade-separated crossing where users cross over or under the roadway using a bridge or tunnel.

Audible pedestrian signals – pedestrian signal indicators that provide an audible signal to assist visually impaired pedestrians in crossing the street.

BAFUL - Bicycles Allowed Full Use of Lane

Bicycle boulevard - See neighborhood greenway. Streets designed to give bicyclists priority by limiting or prohibiting motor vehicle through traffic by using barriers or other design elements, in order to enhance bicycle safety and enjoyment.

Bicycle facilities - A general term used to describe all types of bicycle-related infrastructure including linear bikeways and other provisions to accommodate or encourage bicycling, including bike racks and lockers, bikeways, and showers at employment destinations.

Bike lane - A striped lane for one-way bike travel on a street or highway.

Bicycle level of service (BLOS) – Indication of bicyclist comfort level for specific roadway geometries and traffic conditions. Roadways with a better (lower) score are more attractive (and usually safer) for bicyclists.

Bike path – A paved pathway separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent alignment. Bike paths may be used by pedestrians, bicyclists, skaters, wheel-chair users, runners, and other non-motorized users.

Bike route - A shared roadway specifically identified for use by bicyclists, providing a superior route based on traffic volumes and speeds, street width, directness, and/or cross-street priority; designated by signs only.

Bikeway – A generic term for any road, street, path or way that in some manner is specifically designed for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Bollard - Post used to restrict motor vehicle use of bicycle paths.

Clearance interval – the length of time that the DON'T WALK indication is flashing on a pedestrian signal indication. **Clearance, lateral** – Width required for safe passage of bicycle path users as measured on a horizontal plane.

Clearance, vertical – Height required for safe passage of bicycle path users as measured on a vertical plane.

Crosswalk – any portion of a roadway at an intersection or elsewhere that is distinctly indicated for pedestrian crossing. Where there are no pavement markings, there is a crosswalk at each leg of every intersection, defined by law as the prolongation or connection of the lateral lines of the sidewalks.

Curb extension – an area where the sidewalk and curb are extended into the parking lane, usually in order to shorten pedestrian crossing distance. Also called "bulb-out" or "curb bulb."

Curb ramp – a combined ramp and landing to accomplish a change of level at a curb in order to provide access to pedestrians using wheelchairs.

Directional signs – Signs typically placed at road and bicycle path junctions (decision points) to guide bicycle path users toward a destination or experience.

Geometry - The vertical and horizontal characteristics of a transportation facility, typically defined in terms of gradient, degrees,

and super elevation.

Grade separation - Vertical separation of travelways through use of a bridge or tunnel so that traffic conflicts are minimized.

Grade-separated crossing – A bridge or tunnel allowing bicycle path users to cross a major roadway without conflict.

HCM - Highway Capacity Manual

HDM – Highway Design Manual

Level of service (LOS) - Term for the measurement of how well traffic "flows" on a roadway system or how well an intersection functions.

Loop detector - A device placed under the pavement at intersections to detect a vehicle or bicycle and subsequently trigger a signal to turn green.

Medians – Area in the center of the roadway that separates directional traffic; may provide a striped crossing and halfway point for pedestrians (also can be effective traffic calming design). Medians may be level with the surrounding roadway or "raised" using curb and gutter. Medians may include landscaping, concrete, paint/striping or any combination thereof.

Multi-use path – A trail that permits more than one type of user, such as a trail designated for use by both pedestrians and bicyclists.

MUTCD – Federal Manual of Uniform Traffic Control Devices

Neighborhood Greenways – Streets designed to give bicyclists priority by limiting or prohibiting motor vehicle through traffic by using barriers or other design elements, in order to enhance bicycle safety and enjoyment. See bicycle boulevard.

Paved shoulder – The edge of the roadway beyond the outer stripe edge that provides a place for bicyclists; functions as this only when it is wide enough (4-5 feet), free of debris, and does not contain rumble strips or other obstructions.

Pavement marking – An assortment of markings on the surface of the pavement that provide directions to motorists and other road users as to the proper use of the road (the "Manual on Uniform Traffic Control Devices" determines these standard markings).

Pedestrian – a person afoot; a person operating a pushcart; a person riding on, or pulling a coaster wagon, sled, scooter, tricycle, bicycle with wheels less than 14 inches in diameter, or a similar conveyance, or on roller skates, skateboard, wheel-chair or a baby in a carriage.

Pedestrian signal indication – the lighted WALK/DON'T WALK (or walking man/hand) signal that indicates the pedestrian phase.

Refuge islands – Corner raised triangles or medians, used by pedestrians and bicyclists at intersections or mid-block crossings for assistance with crossing wide streets, especially where motor vehicle right turn lanes exist.

Right-of-way (ROW) - The right of one vehicle, bicycle or pedestrian to proceed in a lawful manner in preference to another vehicle, bicycle, or pedestrian. Also the strip of property in which a transportation facility or other facility is built.

Shared lane marking (SLM) or Sharrow – Shared Lane Pavement Marking

Shared roadway - A roadway where bicyclists and motor vehicles share the same space with no striped bike lane. Any roadway where bicycles are not prohibited by law (i.e. interstate highways or freeways) is a shared roadway.

Sidewalk – an improved facility intended to provide for pedestrian movement; usually, but not always, located in the public right-of-way adjacent to a roadway. Typically constructed of concrete.

Sight distance - The distance a person can see along an unobstructed line of sight.

Traffic calming - Changes in street alignment, installation of barrier, and other physical measures to reduce traffic speeds and/or cut-through traffic volume in the interest of street safety, livability, and other public purposes.

Traffic control devices - Signs, signals or other fixtures, whether permanent or temporary, placed on or adjacent to a travelway by authority of a public body having jurisdiction to regulate, warn, or guide traffic.

Traffic volume - The number of vehicles that pass a specific point in a specific amount of time (hour, day, year).

Wide curb lane – A 14 foot (or greater) wide outside lane adjacent to the curb of a roadway that provides space for bicyclists to ride next to (to the right of) motor vehicles. Also referred to as a "wide outside lane". If adjacent to parking, 22 foot wide pavement may also be considered a wide curb lane.



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Design Needs of Pedestrians

Types of Pedestrians

Similar to bicyclists, pedestrians have a variety of characteristics and the transportation network should accommodate a variety of needs, abilities, and possible impairments. Age is one major factor that affects pedestrians' physical characteristics, walking speed, and environmental perception. Children have low eye height and walk at slower speeds than adults walk. They also perceive the environment differently at various stages of their cognitive development. Older adults walk more slowly and may require assistive devices for walking stability, sight, and hearing. Table 3-1 summarizes common pedestrian characteristics for various age groups.

The MUTCD recommends a normal walking speed of three and a half feet per second when calculating the pedestrian clearance interval at traffic signals. The walking speed can drop to three feet per second for areas with older populations and persons with mobility impairments. While the type and degree of mobility impairment varies greatly across the population, the transportation system should accommodate these users to the greatest reasonable extent.

Age	Characteristics		
0-4	Learning to walk		
	Requires constant adult supervision		
	Developing peripheral vision and depth perception		
5-8	Increasing independence, but still requires supervision		
	Poor depth perception		
9-13	Susceptible to "dart out" intersection dash		
	Poor judgment		
	Sense of invulnerability		
14-18	Improved awareness of traffic environment		
	Poor judgment		
19-40	Active, fully aware of traffic environment		
41-65	Slowing of reflexes		
65+	Difficulty crossing street		
	Vision loss		
	Difficulty hearing vehicles approaching from behind		
Source: AASHTO Guide for the Planning Design and Operation of			

Table 3-1 Pedestrian Characteristics by Age

Source: AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities (July 2004), Exhibit 2-1. Table 3 2 summarizes common physical and cognitive impairments, how they affect personal mobility, and recommendations for improved pedestrian-friendly design.

Impairment	Effect on Mobility	Design Solution
Wheelchair and Scooter	Difficulty propelling over uneven or soft surfaces.	Firm, stable surfaces and structures, including ramps or beveled edges.
Users	Cross-slopes cause wheelchairs to veer downhill.	Cross-slopes to less than two percent.
	Require wider path of travel.	Sufficient width and maneuvering space
Walking Aid Users	Difficulty negotiating steep grades and cross slopes; decreased stability.	Smooth, non-slipperly travel surface.
	Slower walking speed and reduced endurance; reduced ability to react.	Longer pedestrian signal cycles, shorter crossing distances, median refuges, and street furniture.
Hearing Impairment	Less able to detect oncoming hazards at locations with limited sight lines (e.g. driveways, angled intersections, right-turn slip lanes) and complex intersections.	Longer pedestrian signal cycles, clear sight distanc- es, highly visible pedestrian signals and markings.
Vision Impairment	Limited perception of path ahead and obstacles	Accessible text (larger print and raised text), ac- cessible pedestrian signals (APS), guide strips and detectable warning surfaces, safety barriers, and lighting.
	Reliance on memory	
	Reliance on non-visual indicators (e.g. sound and texture)	
Cognitive Impairment	Varies greatly. Can affect ability to perceive, recog- nize, understand, interpret, and respond to informa- tion.	Signs with pictures, universal symbols, and colors, rather than text.

Table 3-2 Disabled Pedestrian Design Considerations

Sidewalks are the most fundamental element of the walking network, as they provide an area for pedestrian travel that is separated from vehicle traffic. Sidewalks are typically constructed out of concrete and are separated from the roadway by a curb or gutter and sometimes a landscaped planting strip area. Sidewalks are a common application in both urban and suburban environments.

Attributes of well-designed sidewalks include the following:

Accessibility: A network of sidewalks should be accessible to all users.

Adequate width: Two people should be able to walk side-by-side and pass a third comfortably. Different walking speeds should be possible. In areas of intense pedestrian use, sidewalks should accommodate the high volume of walkers.

Safety: Design features of the sidewalk should allow pedestrians to have a sense of security and predictability. Sidewalk users should not feel they are at risk due to the presence of adjacent traffic.

Continuity: Walking routes should be obvious and should not require pedestrians to travel out of their way unnecessarily.

Landscaping: Plantings and street trees should contribute to the overall psychological and visual comfort of sidewalk users, and be designed in a manner that contributes to the safety of people.

Drainage: Sidewalks should be well graded to minimize standing water.

Social space: There should be places for standing, visiting, and sitting. The sidewalk area should be a place where adults and children can safely participate in public life.

Quality of place: Sidewalks should contribute to the character of neighborhoods and business districts.







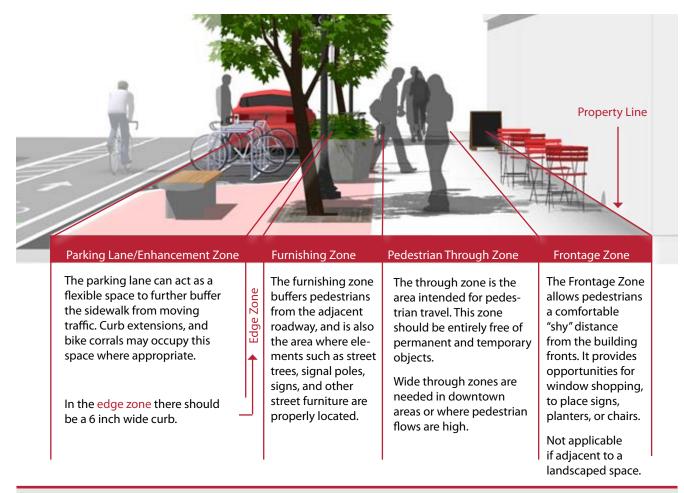
This Section Includes:

- Zones in the Sidewalk Corridor
- Sidewalk Widths
- Sidewalk Obstructions and Driveway Ramps

Zones in the Sidewalk Corridor

Description

Sidewalks are the most fundamental element of the walking network, as they provide an area for pedestrian travel separated from vehicle traffic. A variety of considerations are important in sidewalk design. Providing adequate and accessible facilities can lead to increased numbers of people walking, improved safety, and the creation of social space.



Discussion

Sidewalks should be more than areas to travel; they should provide places for people to interact. There should be places for standing, visiting, and sitting. Sidewalks should contribute to the character of neighborhoods and business districts, strengthen their identity, and be an area where adults and children can safely participate in public life.

Additional References and Guidelines

United States Access Board. (2002). Accessibility Guidelines for Buildings and Facilities.

United States Access Board. (2007). Public Rights-of-Way Accessibility Guidelines (PROWAG).

AASHTO. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.

Materials and Maintenance

Sidewalks are typically constructed out of concrete and are separated from the roadway by a curb or gutter and sometimes a landscaped boulevard. Colored, patterned, or stamped concrete can add distinctive visual appeal.

Sidewalk Widths

Description

The width and design of sidewalks will vary depending on street context, functional classification, and pedestrian demand. Below are preferred widths of each sidewalk zone according to general street type. Standardizing sidewalk guidelines for different areas of the city, dependent on the above listed factors, ensures a minimum level of quality for all sidewalks.



Street Classification	Parking Lane/ Enhancement Zone	Furnishing Zone	Pedestrian Through Zone	Frontage Zone	Total
Local Streets	Varies	2 - 5 feet	4 - 6 feet	N/A	6.5 - 10 feet
Commercial Areas	Varies	4 - 6 feet	6 - 12 feet	2.5 - 10 feet	11 - 28 feet
Arterials and Collectors	rials and Collectors Varies 2 - 6 feet		4 - 8 feet	2.5 - 5 feet	10 -19 feet
	SCDOT's minimum sidev	valk width is five	Six feet enables tw	o pedestrians (in	ncluding
	feet, when no furnishing The SCDOT Highway Des that buffers are desirable	sign Manual says	wheelchair users) to walk side-by-side, or to pass each other comfortably.		

Discussion

It is important to provide adequate width along a sidewalk corridor. Two people should be able to walk side-by-side and pass a third comfortably. In areas of high demand sidewalks should contain adequate width to accommodate the high volumes and different walking speeds of pedestrians. The Americans with Disabilities Act requires a 4 foot clear width in the pedestrian zone plus 5 foot passing areas every 200 feet.

Additional References and Guidelines

SCDOT. (2003). Highway Design Manual.

United States Access Board. (2007). Public Rights-of-Way Accessibility Guidelines (PROWAG).

2 foot wide at a minimum.

AASHTO. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.

Materials and Maintenance

Sidewalks are typically constructed out of concrete and are separated from the roadway by a curb or gutter and sometimes a landscaped boulevard. Surfaces must be firm, stable, and slip resistant. Colored, patterned, or stamped concrete can add distinctive visual appeal.

Sidewalk Obstructions and Driveway Ramps

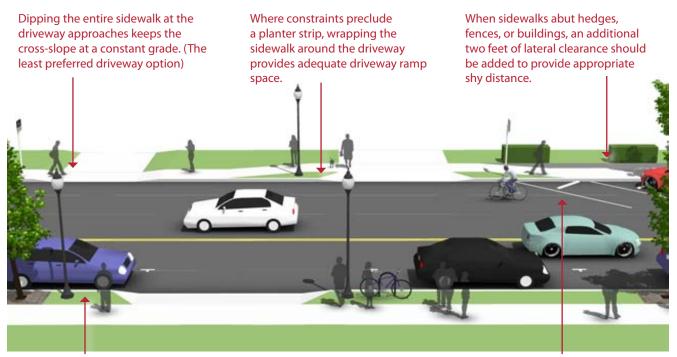
Guidance

Reducing the number of accesses reduces the need for special provisions. This strategy should be pursued first.

Obstructions should be placed between the sidewalk and the roadway to create a buffer for increased pedestrian comfort.

Description

Obstructions to pedestrian travel in the sidewalk corridor typically include driveway ramps, curb ramps, sign posts, utility and signal poles, mailboxes, fire hydrants and street furniture.



Planter strips allow sidewalks to remain level, with the driveway grade change occurring within the planter strip.

When sidewalks abut angled on-street parking, wheel stops should be used to prevent vehicles from overhanging in the sidewalk.

Discussion

Driveways are a common sidewalk obstruction, especially for wheelchair users. When constraints only allow curb-tight sidewalks, dipping the entire sidewalk at the driveway approaches keeps the cross-slope at a constant grade. However, this may be uncomfortable for pedestrians and could create drainage problems behind the sidewalk.

Additional References and Guidelines

United States Access Board. (2002). Accessibility Guidelines for Buildings and Facilities.

United States Access Board. (2007). Public Rights-of-Way Accessibility Guidelines (PROWAG).

AASHTO. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.

Materials and Maintenance

Sidewalks are typically constructed out of concrete and are separated from the roadway by a curb or gutter and sometimes a landscaped boulevard. Surfaces must be firm, stable, and slip resistant.

Design Guidelines

Pedestrians at Intersections

Attributes of pedestrian-friendly intersection design include:

Clear Space: Corners should be clear of obstructions. They should also have enough room for curb ramps, for transit stops where appropriate, and for street conversations where pedestrians might congregate.

Visibility: It is critical that pedestrians on the corner have a good view of vehicle travel lanes and that motorists in the travel lanes can easily see waiting pedestrians.

Legibility: Symbols, markings, and signs used at corners should clearly indicate what actions the pedestrian should take.

Accessibility: All corner features, such as curb ramps, landings, call buttons, signs, symbols, markings, and textures, should meet accessibility standards and follow universal design principles.

Separation from Traffic: Corner design and construction should be effective in discouraging turning vehicles from driving over the pedestrian area. Crossing distances should be minimized.

Lighting: Adequate lighting is an important aspect of visibility, legibility, and accessibility.

These attributes will vary with context but should be considered in all design processes. For example, suburban and rural intersections may have limited or no signing. However, legibility regarding appropriate pedestrian movements should still be taken into account during design.

See **Crossing Beacons** for a discussion of crossing enhancements.

This Section Includes:

- Marked Crosswalks
- Raised Crosswalks
- Reducing Crossing Distance
 - Median Refuge Islands
 - Minimizing Curb Radii
 - Curb Extensions
- Minimizing Conflict with Automobiles
 - Advance Stop Bars
 - Parking Control
- ADA Compliant Curb Ramps













Marked Crosswalks

Marked Crosswalks

Guidance

At signalized intersections, all crosswalks should be marked. At un-signalized intersections, crosswalks may be marked under the following conditions:

- At a complex intersection, to orient pedestrians in finding their way across.
- At an offset intersection, to show pedestrians the shortest route across traffic with the least exposure to vehicular traffic and traffic conflicts.
- At an intersection with visibility constraints, to position pedestrians where they can best be seen by oncoming traffic.
- At an intersection within a school zone on a walking route.

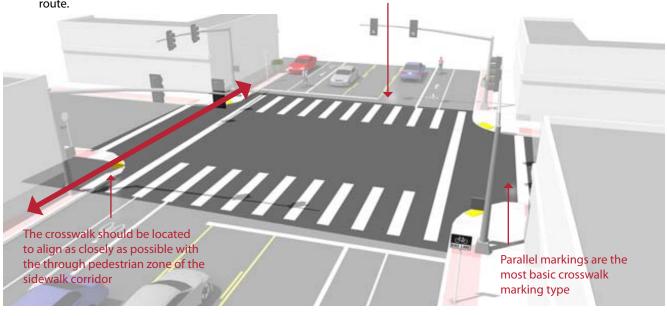
Description

Continental markings provide

additional visibility

A marked crosswalk signals to motorists that they must stop for pedestrians and encourages pedestrians to cross at designated locations. Installing crosswalks alone will not necessarily make crossings safer especially on multi-lane roadways.

At mid-block locations, crosswalks can be marked where there is a demand for crossing and there are no nearby marked crosswalks.



Discussion

Continental crosswalk markings should be used at crossings with high pedestrian use or where vulnerable pedestrians are expected, including: School crossings, across arterial streets for pedestrian-only signals, at mid-block crosswalks, at intersections where there is expected high pedestrian use and the crossing is not controlled by signals or stop signs.

See Crossing Beacons for a discussion of enhancing pedestrian crossings.

Additional References and Guidelines

FHWA. (2009). Manual of Uniform Traffic Control Devices. (3B.18) AASHTO. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.

FHWA. (2005). Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations.

FHWA. (2010). Crosswalk Marking Field Visibility Study.

Materials and Maintenance

Because the effectiveness of marked crossings depends entirely on their visibility, maintaining marked crossings should be a high priority. Thermoplastic markings offer increased durability than conventional paint.

Marked Crosswalks

Raised Crosswalks

Guidance

- Use detectable warnings at the curb edges to alert vision-impaired pedestrians that they are entering the roadway.
- Approaches to the raised crosswalk may be designed to be similar to speed humps.
- Raised crosswalks can also be used as a traffic calming treatment.

Description

A raised crosswalk or intersection can eliminate grade changes from the pedestrian path and give pedestrians greater prominence as they cross the street. Raised crosswalks should be used only in very limited cases where a special emphasis on pedestrians is desired; review on case-by-case basis.



Discussion

Like a speed hump, raised crosswalks have a traffic slowing effect which may be unsuitable on emergency response routes.

Additional References and Guidelines

FHWA. (2009). Manual of Uniform Traffic Control Devices. (3B.18) AASHTO. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.

USDOJ. (2010). ADA Standards for Accessible Design.

Materials and Maintenance

Because the effectiveness of marked crossings depends entirely on their visibility, maintaining marked crossings should be a high priority.

Reducing Crossing Distance

Median Refuge Islands

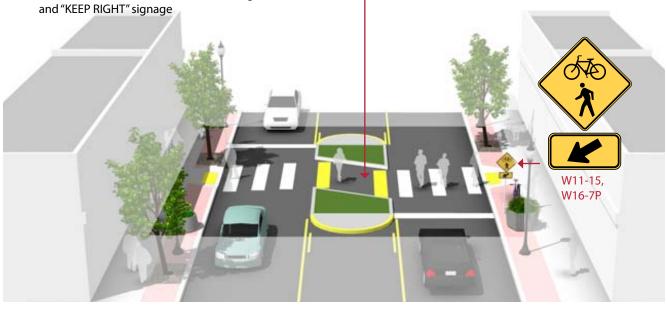
Guidance

- Can be applied on any roadway with more than two lanes of traffic.
- Appropriate at signalized or unsignalized crosswalks
- The refuge island must be accessible, preferably with an at-grade passage through the island rather than ramps and landings.
- The island should be at least 6' wide between travel lanes and at least 20' long
- The refuge area should be wide enough (> 6') to accommodate bikes with trailers and wheelchair users
- On streets with speeds higher than 25 mph there should also be double centerline marking, reflectors, and "KEEP RIGHT" signage

Description

Median refuge islands are located at the mid-point of a marked crossing and help improve pedestrian safety by allowing pedestrians to cross one direction of traffic at a time. Refuge islands minimize pedestrian exposure by shortening crossing distance and increasing the number of available gaps for crossing.

Cur through median islands are preferred over curb ramps, to better accommodate bicyclists.



Discussion

If a refuge island is landscaped, the landscaping should not compromise the visibility of pedestrians crossing in the crosswalk. Shrubs and ground plantings should be no higher than 1 ft 6 in.

On multi-lane roadways, consider configuration with active warning beacons for improved yielding compliance.

Additional References and Guidelines

FHWA. (2009). Manual of Uniform Traffic Control Devices. AASHTO. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities. NACTO. (2011). Urban Bikeway Design Guide.

Materials and Maintenance

Refuge islands may collect road debris and may require somewhat frequent maintenance. Refuge islands should be visible to snow plow crews and should be kept free of snow berms that block access.

Reducing Crossing Distance

Minimizing Curb Radii

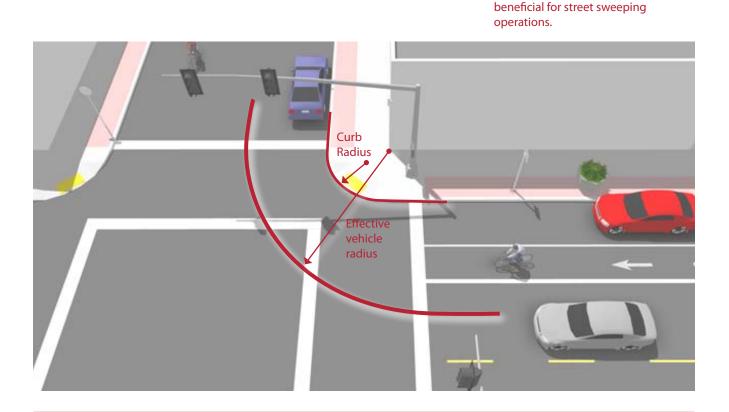
Guidance

The radius may be as small as 3 ft where there are no turning movements, or 5 ft where there are turning movements and there is adequate street width and a larger effective curb radius created by parking or bike lanes.

Description

The size of a curb's radius can have a significant impact on pedestrian comfort and safety. A smaller curb radius provides more pedestrian area at the corner, allows more flexibility in the placement of curb ramps, results in a shorter crossing distance and requires vehicles to slow more on the intersection approach. During the design phase, the chosen radius should be the smallest possible for the circumstances.

A small curb radius is also



Discussion

Several factors govern the choice of curb radius in any given location. These include the desired pedestrian area of the corner, traffic turning movements, the turning radius of the design vehicle, the geometry of the intersection, the street classifications, and whether there is parking or a bike lane (or both) between the travel lane and the curb.

Additional References and Guidelines

AASHTO. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.

AASHTO. (2004). A Policy on Geometric Design of Highways and Streets.

Materials and Maintenance

A small curb radius is also beneficial for street sweeping operations.

Reducing Crossing Distance

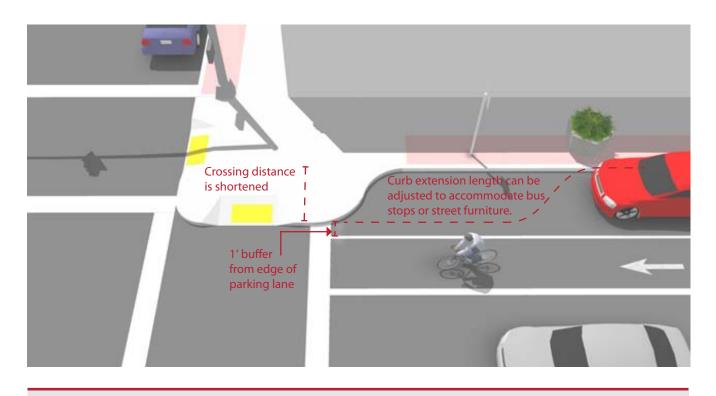
Curb Extensions

Guidance

- In most cases, the curb extensions should be designed to transition between the extended curb and the running curb in the shortest practicable distance.
- For purposes of efficient street sweeping, the minimum radius for the reverse curves of the transition is 10 ft and the two radii should be balanced to be nearly equal
- Curb extensions should terminate one foot short of the parking lane to maximize bicyclist safety.

Description

Curb extensions minimize pedestrian exposure during crossing by shortening crossing distance and give pedestrians a better chance to see and be seen before committing to crossing. They are appropriate for any crosswalk where it is desirable to shorten the crossing distance and there is a parking lane adjacent to the curb.



Discussion

If there is no parking lane, adding curb extensions may be a problem for bicycle travel and truck or bus turning movements.

If a refuge island is landscaped, the landscaping should not compromise the visibility of pedestrians crossing in the crosswalk. Shrubs and ground plantings should be no higher than 1 ft 6 in.

Additional References and Guidelines

AASHTO. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities. AASHTO. (2004). A Policy on Geometric Design of Highways and Streets.

Materials and Maintenance

Planted curb extensions may be designed as a bioswale, a vegetated system for stormwater management.

Minimizing Conflict with Automobiles

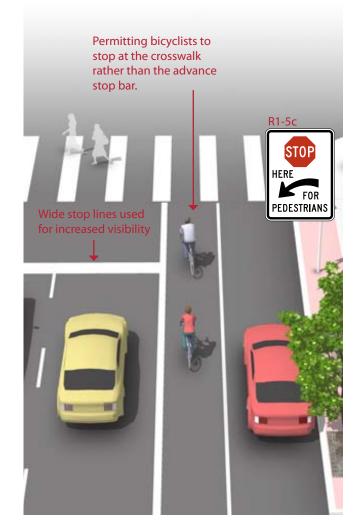
Advance Stop Bar

Description

Advance stop bars increase pedestrian comfort and safety by stopping motor vehicles well in advance of marked crosswalks, allowing vehicle operators a better line of sight of pedestrians and giving inner lane motor vehicle traffic time to stop for pedestrians.

Guidance

- On streets with at least two travel lanes in each direction.
- Prior to a marked crosswalk
- In one or both directions of motor vehicle travel
- Recommended 15-50 feet in advance of the crosswalk
- A "Stop Here for Pedestrians" sign should accompany the advance stop bar



Discussion

If a bicycle lane is present, mark the advance stop bar to permit bicyclists to stop at the crosswalk ahead of the stop bar.

If the State law requires drivers to YIELD to pedestrians in crosswalks, a Yield Line marking must be used rather than a stop line in these cases.

Additional References and Guidelines

FHWA. (2009). Manual of Uniform Traffic Control Devices.

Materials and Maintenance

Because the effectiveness of markings depends entirely on their visibility, maintaining markings should be a high priority.

Minimizing Conflict with Automobiles

Parking Control

Guidance

Curb extensions, 'No Parking' signage, or curb paint can be used to keep the approach to intersections clear of parked vehicles.

At "T" and offset intersections, where the boundaries of the intersection may not be obvious, this prohibition should be made clear with signage.

Parking shall not be allowed within any type of intersection adjacent to schools, school crosswalks, and parks. This includes "T" and offset intersections.

Description

Parking control involves restricting or reducing on-street parking near intersections with high pedestrian activity. Locating parking away from the intersection improves motorist's visibility on the approach to the intersection and crosswalk. Improved sight lines at intersections reduces conflicts between motorists and pedestrians.



Discussion

In areas where there is high parking demand parking compact vehicles may be allowed within "T" or offset intersections and on either side of the crosswalk. At these locations, signs will be placed to prohibit parking within the designated crosswalk areas, and additional enforcement should be provided, particularly when the treatment is new.

Additional References and Guidelines

AASHTO. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities. AASHTO. (2004). A Policy on Geometric Design of Highways and Streets.

Materials and Maintenance

Signage and striping require routine maintenance.

ADA Compliant Curb Ramps

ADA Compliant Curb Ramps

Guidance

- The landing at the top of a ramp shall be at least 4 feet long and at least the same width as the ramp itself.
- The ramp shall slope no more than 1:50 (2.0%) in any direction.
- If the ramp runs directly into a crosswalk, the landing at the bottom will be in the roadway.
- If the ramp lands on a dropped landing within the sidewalk or corner area where someone in a wheelchair may have to change direction, the landing must be a minimum of 5'-0" long and at least as wide as the ramp, although a width of 5'-0" is preferred.

Curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Three configurations are illustrated below.

Description

Curb ramps are the design elements that allow all users to make the transition from the street to the sidewalk. There are a number of factors to be considered in the design and placement of curb ramps at corners. Properly designed curb ramps ensure that the sidewalk is accessible from the roadway. A sidewalk without a curb ramp can be useless to someone in a wheelchair, forcing them back to a driveway and out into the street for access.

Although diagonal curb ramps might save money, they create potential safety and mobility problems for pedestrians, including reduced maneuverability and increased interaction with turning vehicles, particularly in areas with high traffic volumes. Diagonal curb ramp configurations are the least preferred of all options.

> Diagonal ramps shall include a clear space of at least 48" within the crosswalk for user maneuverability



Crosswalk spacing not to scale. For illustration purposes only.

Discussion

The edge of an ADA compliant curb ramp will be marked with a tactile warning device (also known as truncated domes) to alert people with visual impairments to changes in the pedestrian environment. Color contrast between the raised tactile device and the surrounding infrastructure is important so that the change is readily evident.

Additional References and Guidelines

United States Access Board. (2002). Accessibility Guidelines for Buildings and Facilities. United States Access Board. (2007). Public Rights-of-Way Accessibility Guidelines (PROWAG). USDOJ. (2010). ADA Standards for Accessible Design.

Materials and Maintenance

It is critical that the interface between a curb ramp and the street be maintained adequately. Asphalt street sections can develop potholes in the at the foot of the ramp, which can catch the front wheels of a wheelchair.

Crossing Beacons

Crossing beacons facilitate crossings of roadways for pedestrians and bicyclists. Beacons make crossing intersections safer by clarifying when to enter an intersection and by alerting motorists to the presence of pedestrians in the crosswalk.

Flashing amber warning beacons can be utilized at unsignalized intersection crossings. Push buttons, signage, and pavement markings may be used to highlight these facilities for pedestrians, bicyclists and motorists.

Determining which type of signal or beacon to use for a particular intersection depends on a variety of factors. These include speed limits, Average Daily Traffic (ADT), and the anticipated levels of pedestrian and bicycle crossing traffic.

An intersection with crossing beacons may reduce stress and delays for a crossing users, and discourage illegal and unsafe crossing maneuvers.





This Section Includes:

- Active Warning Beacons
- Hybrid Beacon for Mid-Block Crossing

Crossing Beacons

Active Warning Beacons

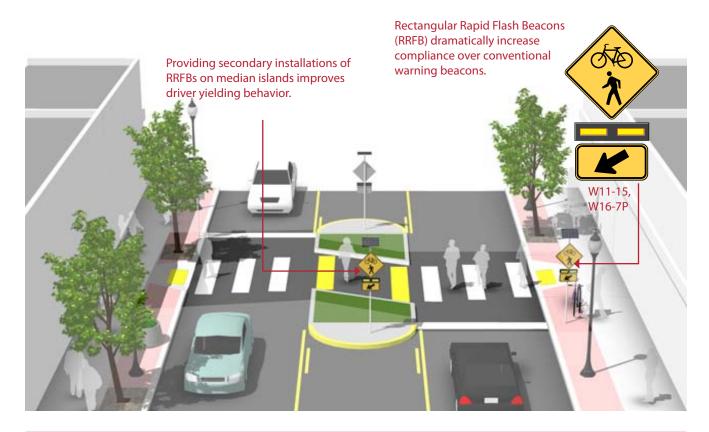
Guidance

- Warning beacons shall not be used at crosswalks controlled by YIELD signs, STOP signs, or traffic signals.
- Warning beacons shall initiate operation based on pedestrian or bicyclist actuation and shall cease operation at a predetermined time after actuation or, with passive detection, after the pedestrian or bicyclist clears the crosswalk.

Description

Active warning beacons are user actuated illuminated devices designed to increase motor vehicle yielding compliance at crossings of multi lane or high volume roadways.

Types of active warning beacons include conventional circular yellow flashing beacons, in-roadway warning lights, or Rectangular Rapid Flash Beacons (RRFB).



Discussion

Rectangular rapid flash beacons have the most increased compliance of all the warning beacon enhancement options.

A study of the effectiveness of going from a no-beacon arrangement to a two-beacon RRFB installation increased yielding from 18 percent to 81 percent. A four-beacon arrangement raised compliance to 88 percent. Additional studies over long term installations show little to no decrease in yielding behavior over time.

Additional References and Guidelines

NACTO. (2011). Urban Bikeway Design Guide. FHWA. (2009). Manual of Uniform Traffic Control Devices. FHWA. (2008). MUTCD - Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons (IA-11)

Materials and Maintenance

Depending on power supply, maintenance can be minimal. If solar power is used, RRFBs should run for years without issue.

Crossing Beacons

Hybrid Beacon for Mid-**Block Crossing**

Guidance

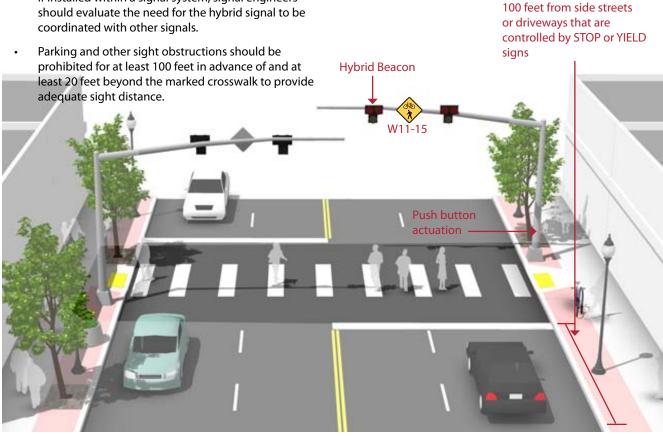
Hybrid beacons may be installed without meeting traffic signal control warrants if roadway speed and volumes are excessive for comfortable pedestrian crossings.

If installed within a signal system, signal engineers should evaluate the need for the hybrid signal to be coordinated with other signals.

Description

Hybrid beacons are used to improve non-motorized crossings of major streets. A hybrid beacon consists of a signal-head with two red lenses over a single yellow lens on the major street, and a pedestrian signal head for the crosswalk

Should be installed at least



Discussion

Hybrid beacon signals are normally activated by push buttons, but may also be triggered by infrared, microwave or video detectors. The maximum delay for activation of the signal should be two minutes, with minimum crossing times determined by the width of the street.

Each crossing, regardless of traffic speed or volume, requires additional review by a registered engineer to identify sight lines, potential impacts on traffic progression, timing with adjacent signals, capacity, and safety.

Additional References and Guidelines

FHWA. (2009). Manual of Uniform Traffic Control Devices. NACTO. (2011). Urban Bikeway Design Guide.

Materials and Maintenance

Hybrid beacons are subject to the same maintenance needs and requirements as standard traffic signals. Signing and striping need to be maintained to help users understand any unfamiliar traffic control.



Walk Allendale Focus Groups Report

Prepared for: Alta Planning + Design

Prepared by: Gather Consulting

February 15, 2016



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OVERVIEW

Background and Objectives

- Alta Planning + Design contracted with Gather Consulting to conduct focus groups with residents of the City of Allendale in January 2016.
- Specific objectives of the focus groups were to do the following:
 - o Identify residents' opinions of walkability in Allendale,
 - Explore residents' perceptions of pedestrian safety issues,
 - Seek input from residents on priority pedestrian planning projects and destinations,
 - Seek residents input on the level of accessibility to active living and healthy eating in Allendale.

Methodology

Four focus groups were conducted on Monday Jan. 25 at 5:30 p.m. and Tuesday Jan. 26 at 1 p.m. and 3:00 p.m.

All four sessions were held at the Leadership Institute at USC Salkehatchi. Twenty-one community members participated in the three groups.

Focus group participants were chosen to prioritize residents of the town and other stakeholders with a vested interest in improving access to active living and healthy eating.

To ensure that residents from all areas of the city were represented, members from each of Allendale's seven neighborhood association groups were invited to participate.

Limitations: The focus group methodology used for this study is qualitative in nature. The exact wording of each question and the discussion of each question area varied across groups. Also, the limited number of respondents involved in this type of research means the study should be regarded as exploratory in nature. Results should be used to develop directions rather than quantitatively precise or absolute measures.



KEY FINDINGS

Assets

Question: What assets exist in Allendale? How can the pedestrian master plan build upon or leverage current assets?

Focus group participants named the following assets:

- USC Salkehatchie In addition to being one of Allendale's most important educational and economic resources, the school is a popular destination for walkers and runners. Many participants said they walk regularly around the campus in the early mornings and/or in the evenings.
- Winthrop Park The park, which is located off of Razor Rd., has a lot of potential, focus group participants said. However, they said it needs maintenance, better lighting, and safety cameras to reduce loitering and crime.
- The Allendale Farmers' Market & Freedom Park The farmers' market is the main attraction at Freedom Park, which also includes a play structure, picnic tables, and a stage. Participants described the area as beautiful and a family destination — although it does not draw in a lot of youth. People congregate to play checkers and have lunch. It is near the Allendale Community Center on Flat St. and in walking distance to neighborhoods. Nearly every participant said they shop at the market regularly.
- The University Mile project Focus group members spoke at length about their hopes that the pedestrian plan will help the community leverage this \$1.8 million project that will include the installation of ADA compliant sidewalks, crosswalks, landscaping, and lighting within areas of the USC Salkehatchie campus and the downtown area.
- Allendale's Promise Zone designation Allendale is part of a six-county region that received the federal government's Promise Zone designation, which improves the community's access to federal grant programs. Focus group participants said they hope the pedestrian plan will help the community identify federal grants that could be used to implement pedestrian planning projects.



Barriers

Question: What are the biggest barriers to walkability in Allendale?

Focus group participants identified the following issues as the biggest barriers to walking in Allendale:

- Railroad tracks that dissect the city Railroad tracks create major barriers between sections of the city that are physically close. Focus group participants said improving pedestrian safety and accessibility at railroad crossings would improve both walkability and community connectivity.
- Inadequate sidewalks A lack of sidewalks and the poor condition of existing sidewalks are among the biggest barriers to walking in Allendale, participants said. Overgrown trees and shrubbery near sidewalks was also described as a major challenge. The following streets were mentioned frequently:
 - Razor Road,
 - Bay Street W,
 - Railroad Ave. W (Kids walk here especially in the area near Happy Home Baptist Church.)
 - The service road on 278 heading toward Fairfax,
- Concerns about safety Focus group participants spoke at length about their fears about personal safety while walking on dark, deserted streets that are often filled with blighted, abandoned homes. They also shared their frustrations about the prevalence of gangs in Allendale.



Priority Projects

Question: What are high priority projects, streets, neighborhoods, or destinations for improved pedestrian access? Why are they priorities?

Focus group participants identified the following priority projects:

- Revitalize downtown The pedestrian plan should include projects that can add life to downtown streets that feel empty, isolating and, at times, dangerous, participants said. They suggested planting trees on shadeless thoroughfares, covering blank building facades, and adding adequate lighting to create a sense of aliveness and safety in the downtown district.
- Connect popular gathering spaces Allendale lacks spaces for residents to gather and share information, participants said. However, they said the destinations that exist are well utilized and popular. Focus group participants spoke about the need to improve pedestrian access to-and-from destinations that are already close together to create a few highly populated, walkable areas. In addition to adding and improving sidewalks in those areas, many participants mentioned that they want to see more benches added along popular routes so that pedestrians can rest or socialize. They also want to see the addition of features to slow traffic, buffer pedestrians, and improve lighting and aesthetics. Participants identified the following high-traffic routes and areas:
 - The IGA grocery store and the residential neighborhoods near it. The store is in walking distance to a few neighborhoods, but railroad tracks and wooded areas limit pedestrian access.
 - The area that includes the Allendale Farmers' market, Freedom Park, and the Community Center. Participants said more people would walk, rather than drive, to these popular destinations if pedestrian access were improved.
 - The Razor Road/Roosevelt Heights Neighborhood. One of the most populated residential areas in the town is filled with blighted homes, speeding traffic on Razor Road, and inadequate lighting.
 - Christ Central On a daily basis, many in the community walk to-and-from the organization, which provides food, clothes, and shelter to individuals and families.
- Revive US 301 Many focus group participants who grew up in Allendale spoke fondly of the time - before Interstate 95 was built in the 1970s - when 301 was a popular route for drivers traveling between New York and Florida.



They said that even today, they continue to admire the wide stateliness of the corridor. The said they want to see the addition of landscaped medians, trees, benches, and wayfinding signs to improve the aesthetics and walkability of the thoroughfare and restore some of its former glory.

- Improve access to Winthrop Park. Re-develop and reclaim the park as a family destination and improve access for pedestrians who live in the Razor Road/Roosevelt Heights neighborhood. Participants said they want to see improved signage and lighting and better enforcement of loitering laws.
- Create opportunities for young people Participants said there aren't enough activities for young people in Allendale. They hope the pedestrian plan can help to address the issue by improving pedestrian accessibility and adding amenities such as bleachers to the few areas that youth currently use such as the basketball court in the Razor Road/Roosevelt Heights neighborhood and the softball fields at Morris Holmes Park, which is a county facility.



APPENDIX A

At the end of each focus group session, participants were asked to share one word that described how they felt about the issues discussed during the meeting.

Participants used the following words to describe their feelings:

- Togetherness
- Moving forward
- A change
- Progress
- Moving ahead
- Beautification
- Unity
- Working together
- Informative
- Community
- Let's do it
- Priorities
- Excellent
- Positive improvement
- Hope
- Optimism
- Blessing
- I'm impressed
- Results and Change



APPENDIX B

- Direct quotes from focus group participants:
 - "People don't stay in a place because of money, people stay places because of how it makes them feel."
 - "We got to start building cohesiveness."
 - "We got to figure out how to make people feel comfortable and good [in our community]."
 - "We had a cohesiveness [before] and that makes all the difference."
 - "How do we get fresher food in an area? I will drive an hour to get better food."—Resident's frustration with poor-quality produce at IGA"
 - "Security is like unlocking this door and letting us be free." -A resident's response to wanting to feel safe and secure in his neighborhood again.
 - "Lots of people are ashamed to say they are from Allendale. We want to change the stigma of the name."
 - "You can't have community without unity."



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