Kershaw COUNTY SOUTH CAROLINA

Wildwood Lane Active Living and Pedestrian Master Plan

April 2017

alta PLANNING + DESIGN

ACKNOWLEDGEMENTS

PUBLIC PARTICIPANTS

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

WILDWOOD LANE ACTIVE LIVING AND PEDESTRIAN MASTER PLAN PROJECT STAKEHOLDERS

Thank you to the engaged leaders of the Lugoff 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 Eat Smart Move More Kershaw County.

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PROJECT VISION

Kershaw County and Lugoff are **healthy and active communities** with **safe and inviting places to walk** for both residents and visitors. Residents of all ages, abilities, and backgrounds **enjoy active transportation**, opportunities for physical activity, **access to healthy foods**, and a **high quality of life.**

PROJECT GOALS

- **Connect neighborhoods** and their residents to parks and schools
- Improve **pedestrian connectivity** between local destinations
- **Increase awareness** of safe and enjoyable places to walk
- Identify **near-term, capital improvement projects** that will **positively impact the walking and biking environment**
- **Leverage other capital improvement projects** already underway or planned
- **Engage the strong network of community partners** working to improve Kershaw County in efforts that **advance walkability**
- **Walkability** and a **high quality of life** as a cornerstone of the Kershaw County's **community image**

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INTRODUCTION

Don't underestimate the power of vision to change the world... What you contribute can fundamentally change the paradigm or way of thinking about problems.

– Leroy Hood

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 throughout South Carolina. The effort is part of the DHEC South Carolina Prevention and Health Across Systems and Environments (SC PHASE) Pedestrian Master Planning Project.

SC PHASE Pedestrian Master Planning is part of a 3 year project to develop and Pedestrian Master Plans for 16 communities in 15 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**

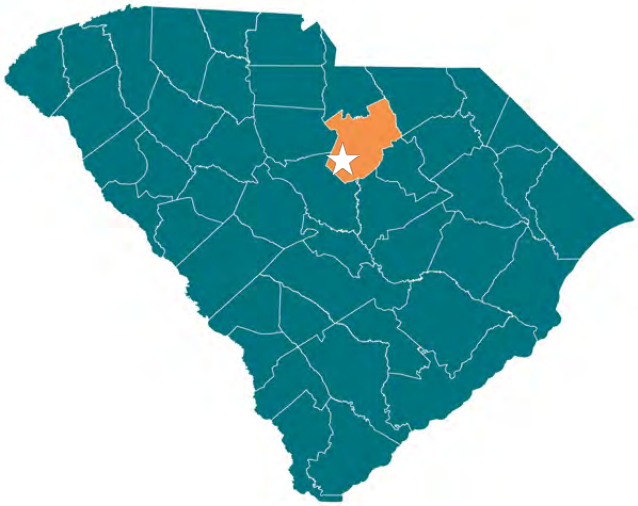
Lugoff is one of the 16 communities to participate in SC PHASE Pedestrian Master Planning.

Pedestrian Master Plans play a critical role in fostering more walk-friendly communities by creating 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 leisure-time 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.**

Wildwood Park is one of many recreational amenities throughout the Wildwood corridor.

COMMUNITY CONTEXT

Lugoff is a census-designated place (CDP) in Kershaw County 5 miles west of Camden, SC and east of the Columbia, South Carolina metropolitan area. Lugoff is an unincorporated community of over 7,000 people. As of the census of 2010, there were 7,434 people, 2,364 households, and 1,846 families residing in the CDP.



Reference map of Lugoff within Kershaw County and the state

Multiple parks along Wildwood Road offer recreational opportunities to residents.

[1] U.S. Census Bureau, 2010 Census.

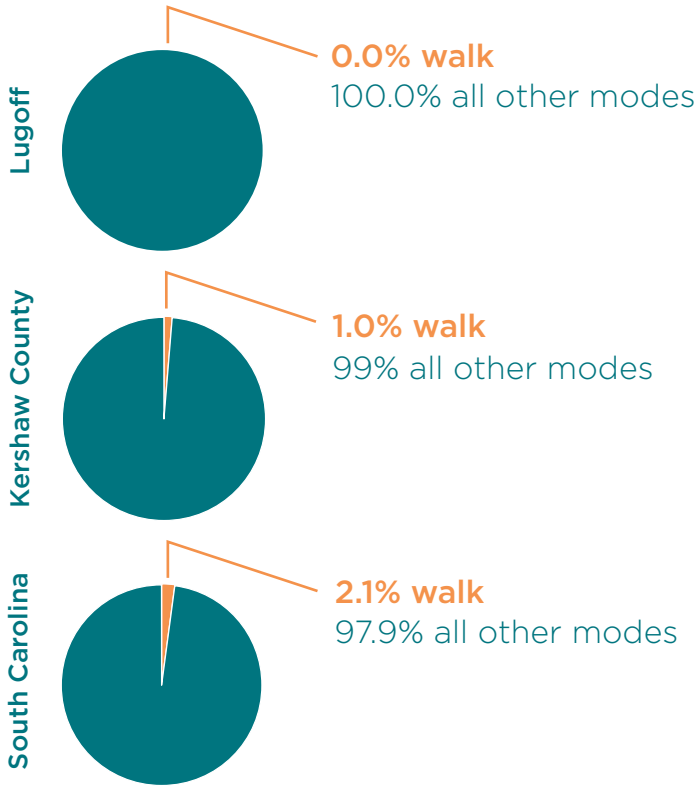
COMMUNITY PROFILE

The racial make-up of the Lugoff is predominantly white at 79.9%, with 16.9% Black (or African American) residents. For comparison, South Carolina is about 67% white and 28% Black or African American.[2]

The median income for households in Lugoff is $60,156, a figure well above that of the county ($43,622) and state ($44,779). Given this disparity in income level, it is not surprising then that the community's poverty rate of 9.9% is lower than the county and state poverty rates (16.8% and 18.3%, respectively).

In terms of travel mode share across the community, the vast majority of residents commute to work in private vehicles. **0.0% of the working population walk to work which is lower than Kershaw County and the state average.** This statistic is probably reflective of the fact that Lugoff is largely a residential area with most people traveling outside of the community for work trips.

Walking as a percentage of commuting mode share per geography:



[2] U.S. Census Bureau 2010-2014 American Community Survey 5-Year Estimates
[3] Dangerous by Design - South Carolina

It is important to note that mode share does not paint a full picture of need and demand. 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 Lugoff who do not have access to vehicles (over 5%)** and those households with access to only one vehicle (32%) may walk out of necessity, and residents who currently drive would opt to walk to work if a safe and comfortable walking environment with adequate infrastructure existed.

Safety is key in encouraging and sustaining pedestrian activity. State traffic collision data show that **Kershaw County has a pedestrian fatality rate of 1.35 deaths per 100,000 people, compared to a rate of 2.3 fatalities per 100,000 people for the state.**[3] Finding ways to lower this rate to 0 in the Lugoff area will be an important goal for this project.

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 context-specific but typically include the following:

- increase personal mobility by providing alternatives to driving private automobiles
- increase personal mobility with ADA-accessible streetscapes
- stimulate vibrancy in commercial and social realms of a community
- increase access, proximity, and convenience to more destinations through a well-connected 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

Lugoff has a basis of existing facilities and features that will support and contribute to the its goal of becoming more pedestrian-friendly. This Plan presents opportunities to build off of those existing resources.

WHY PLAN FOR PEDESTRIANS?

Imagine Lugoff 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.**

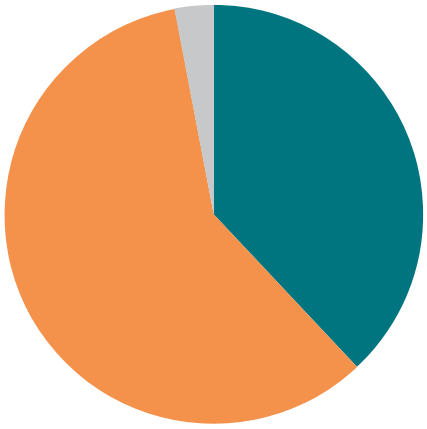
Development is well-designed and accessible so that residents have many of their everyday needs within walking distance. **Pedestrian-friendly streets are prevalent throughout the community**, and parents feel perfectly safe letting their **children walk or bike to school, parks, or other destinations 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 urban and rural 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' Preference to Reduce 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.

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RECOMMENDATIONS

All the fancy economic development strategies, such as developing a biomedical cluster, an aerospace cluster, or whatever the current economic development 'flavor of the month' might be, do not hold a candle to ***the power of a great walkable ... place.***

-- Jeff Speck

OVERVIEW

This chapter presents the proposed Wildwood Lane pedestrian network improvements identified during the charrette process and supplemented through input from the project team, field work, and the equity analysis. The proposed improvements are intended to make walking safer and more accessible for everyone along the corridor. The recommendations are organized as follows:

- **Overview Map of Recommendations** — This map paints a high-level picture of corridors and areas that have been identified as community priorities. These projects have the potential to create the most positive impact for all road users.
- **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 two projects detailed in individual cutsheets are crucial catalysts for economic development, walkability, and quality of life in Lugoff.

It is important to note that while this plan offers an action plan for creating a more walkable Lugoff, **the recommendations of the plan should not preclude other investments in the pedestrian environment that are not included in this report.** This Plan provides a useful framework for proactively seeking funding and advancing projects from concept to implementation. This proactive approach does not, however, lessen the need to consider opportunistic improvements as well, such as the timeliness of capitalizing on a new development or capital project, streetscape enhancement project, SCDOT corridor improvement, upgrade to an intersection, or new trail connection.

Actionable Next Steps

FUND: Identify funding for the Wildwood Lane corridor improvements based on the phasing plan and cost estimates in the Appendix of this plan

BUILD: Ensure implementation meets standards of quality, safety, comfort, and consistency by referencing the design guidance provided in the Appendix of this plan, as well as the Kershaw County Bicycle Pedestrian and Greenways Master Plan (2012)

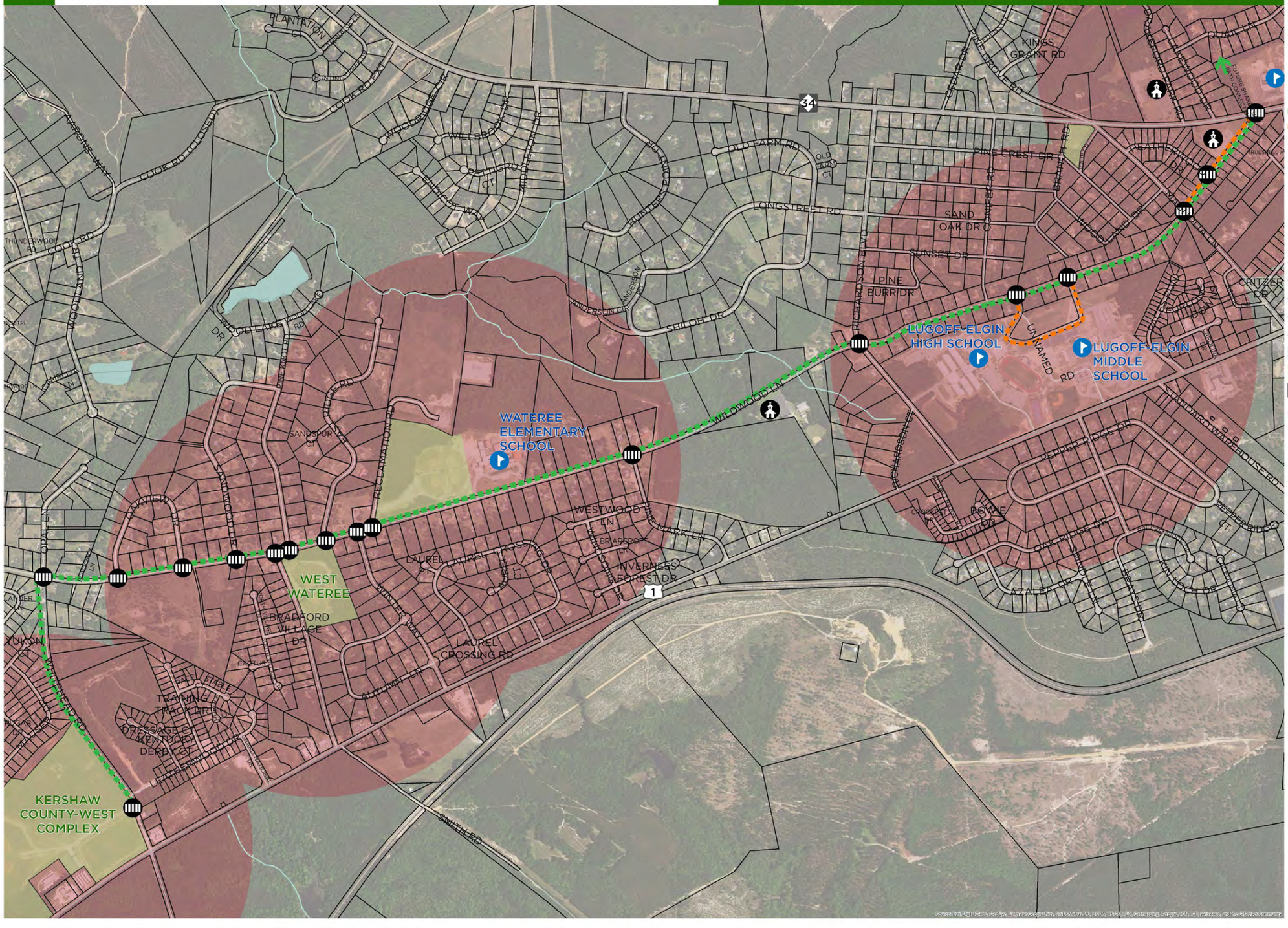
ENHANCE: Develop and implement the recommended wayfinding signage program and promote access to parks and schools along the corridor

CONNECT: Look for opportunities to coordinate pedestrian enhancements with regularly-programmed maintenance activities, new developments, and large roadway construction projects that connect to the Wildwood Lane Corridor or other key destinations in Lugoff

PROMOTE: Partner with East Smart Move More Kershaw County and other local partners and interested citizens to develop the programs recommended of the Kershaw County Bicycle Pedestrian and Greenways Master Plan (2012), as well as support recommended walk-friendly policy changes.

OVERVIEW MAP OF RECOMMENDATIONS

WILDWOOD LANE CORRIDOR MASTER PLAN



Kershaw COUNTY SOUTH CAROLINA

BIKE | PED FACILITIES
- SHARED USE PATH
- SIDEWALK

OVERLAYS
- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
- RECREATION AREA
- PARCELS
- 10 MINUTE WALK RADIUS

POINTS OF INTEREST
- CHURCH
- SCHOOL
- X-ING IMPROVEMENTS

FEET
0 1,000

MILES
0 0.05

NORTH

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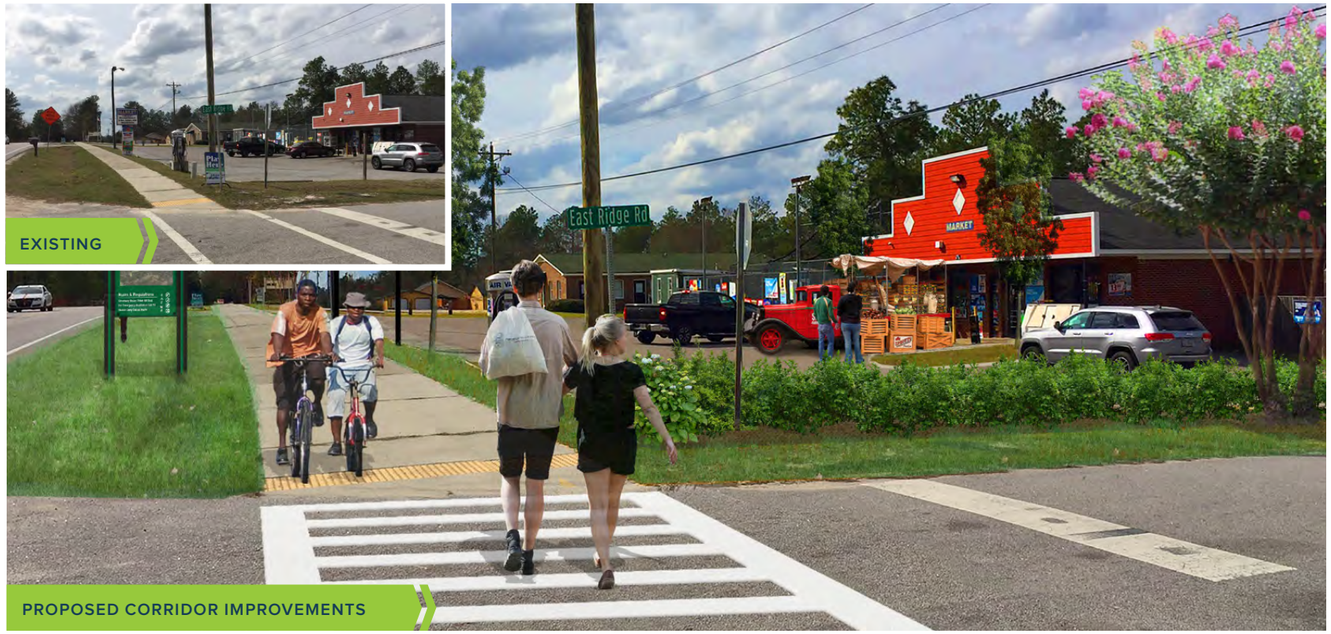
Wildwood Lane Shared Use Path

Lugoff has four significant parks, and four schools along the Wildwood Lane corridor. A shared use path along this corridor will help to provide a continuous connetion between each destination, as well as between the various residential neighborhoods.

Over the past 50 years rates of children walking to school have steadily declined due to a number of factors including suburban sprawl, lack of sidewalks, high rates of car ownership, infrequent and unsafe roadway crossings, high volume and high speed roads, and perception of safety. The resounding impact has been a precipitous increase in childhood obesity, diminishing mental health, increased transportation costs for schools and families, and increased health care costs.

These **schools and their associated walking/biking access corridors were thus identified as priority pedestrian connections.** The underpinning of these priority connection recommendations is to address known safety issues. Safer, calmer streets promote walking and bicycling and are thus invariably conducive to active transportation users of all ages and abilities to enjoy. In some cases, the shared use path will be an extension of the exisitng sidewalk system. Wherever the shared use path crosses major interesctions, it is recommended to provide high visiblilty crossings and pedestrian signals at signalized intersections.

The shared use path can also serve to connect residents to healthy food options via an expansion of the services offered at existing retail outlets. For instance, the Market could work with local farmers to provide fresh produce at various times throughout the week.



Shared Use path and wayfinding signage proposed at East Ridge Road.

Unsignalized intersection recommendations at Richardson Boulevard

+ Crossing Improvements
+ Traffic Signals
+ Traffic Calming
+ Seamless Sidewalk Network
+ Wayfinding
+ Trail amentiies

Potential Partners

» Kershaw County
» SCDOT
» Neighborhood Residents
» Safe Routes to School
» Parks + Recreation
» Eat Smart Move More

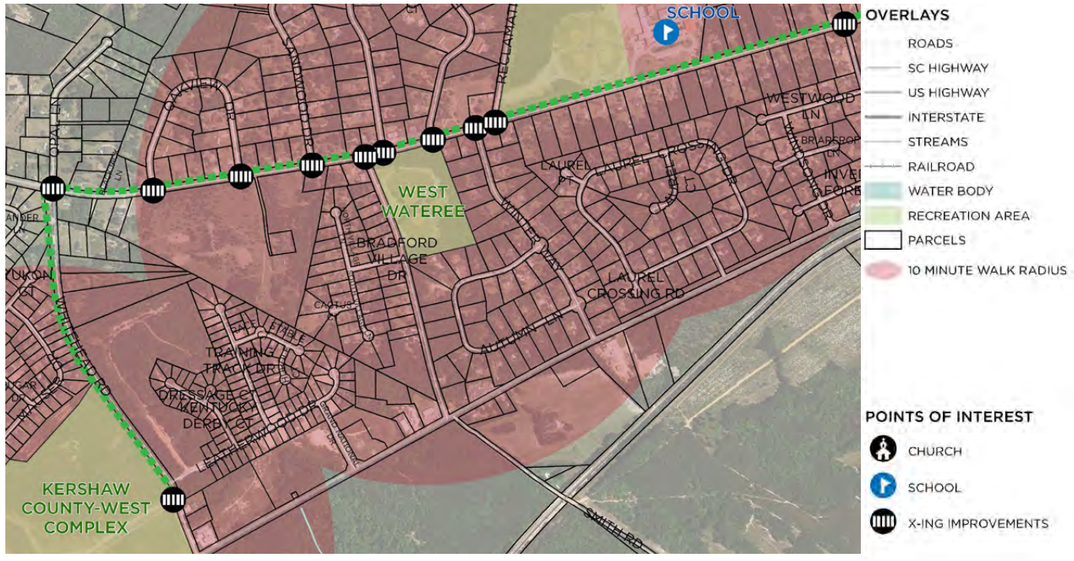
Park Entrances + Intersection Enhancements

The Wildwood corridor is home to four schools and multiple parks, so increasing active access to these facilities will increase opportunities for physical activity in the community. A proposed shared use path along the corridor with connect numerous homes and businesses to these amenities. Safe crossings at roadway intersections and park entrances are crucial to the safety and success of the pedestrian environment.

At a minimum, pedestrian crossings should be improved at Richardson Boulevard, Whitehead Road, and Ridgeway Road. Enhancements to these roadway crossings will provide safer routes for students to access to Lugoff Elementary School, Lugoff-Elgin Middle School, Lugoff-Elgin High School, and Wateree Elementary School. Additional enhancements should be made at the entrances Kershaw County-West Complex and West Wateree Park.

KEY RECOMMENDED IMPROVEMENTS

+ High Visibility Crosswalks
+ Pedestrian Refuge Islands
+ Pedestrian-Scale Lighting
+ Traffic Signal Modification
+ Wayfinding Signage



Intersection improvement recommendations throughout the corridor.

Proposed traffic light at Richardson Boulevard.

Wayfinding Signage

The ability to navigate through a community is informed by landmarks, natural features, and other visual cues. Wayfinding signs should indicate the direction of travel, location of destinations, and the location of access points. Lugoff parks, schools, and businesses can benefit from a better informed signage system, which attracts visitors and encourages residents to explore new places.

Wayfinding signage can also include minutes to reach destinations, and calories burned by walking there. These signs increase a pedestrian's comfort and accessibility to key destinations across the community. Wayfinding signage can serve many purposes including; helping to familiarize users with the community's sidewalk network and the areas it reaches, helping users identify the best routes to destination, and helping overcome a "barrier to entry" for people who do not currently walk

Wayfinding signs also visually cue motorists that they are driving near a pedestrian-oriented corridor and should use caution. Signs are typically placed at key locations leading to and along routes, including the intersection of multiple routes.

KEY RECOMMENDED IMPROVEMENTS

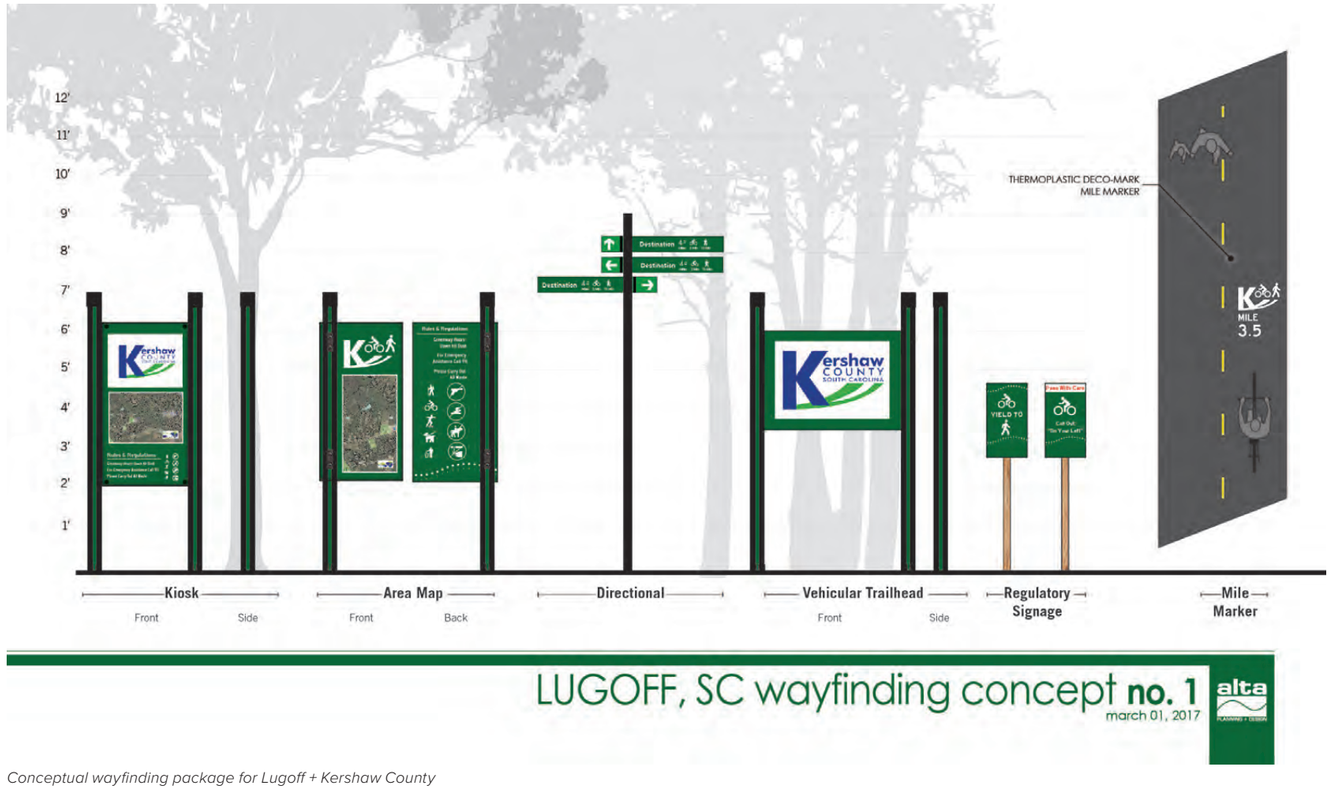
+ Destination Based Wayfinding Signs
+ Trail Milemarks for E911 system and branding
+ Gateway Signage and Public Art
+ Community Maps and Kiosks

Potential kiosk sign with directional elements.

Potential pavement markings and mile markers.

Potential Partners

» Kershaw County
» SCDOT
» Neighborhood Residents
» Safe Routes to School
» Parks + Recreation
» Eat Smart Move More



Conceptual wayfinding package for Lugoff + Kershaw County

LUGOFF, SC wayfinding concept **no. 1**

march 01, 2017

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EXISTING CONDITIONS

Whether you live in a city or a small town, and whether you drive a car, take the bus, or ride a train, at some point in the day, ***everyone is a pedestrian.***

– Anthony Foxx

OVERVIEW

This chapter provides an overview of the major components of the Lugoff's existing environment for walking. **This includes a review of previous planning efforts and an assessment of the primary opportunities and constraints that exist for the development of a safe and connected pedestrian network.** The assessment is based on the project team's field observations and GIS-based mapping analysis, as well as public input which is detailed in the following chapter.

The Existing Conditions Chapter summarizes the information gained and critical outcomes of this assessment and discovery process, including:

- Review of Existing Planning Efforts
- Analysis of Opportunities and Constraints
- Equity and Healthy Food Access Analysis

Wildwood Lane Residential Collector

West Wateree Transportation Study

The West Wateree Transportation Study offers a concept design for Wildwood Lane in Elgin, immediately west of Luguff.

REVIEW OF PREVIOUS PLANNING EFFORTS

This section describes recent planning efforts relevant to walkability and transportation in Lugoff. Kershaw County completed two transportation planning documents in recent years; the *Kershaw County Bicycle, Pedestrian and Greenway Master Plan; and the West Wateree Transportation Study*.

Common themes exist between these three existing plans. These themes center on Lugoff's need for an improved quality of life including accessibility and connectivity for active modes of transportation.

To achieve a vision for walkability and an increased quality of life, the plans include the following recommendations:

- provide a seamlessly connected walking network, particularly across the four priority zones identified
- provide a well-maintained greenway system
- support programs and policies aimed at mitigating chronic diseases

Wildwood Lane Active Living and Pedestrian Master Plan combines, updates, and refines previous recommendations for sidewalks and greenways to present a proposed future network.

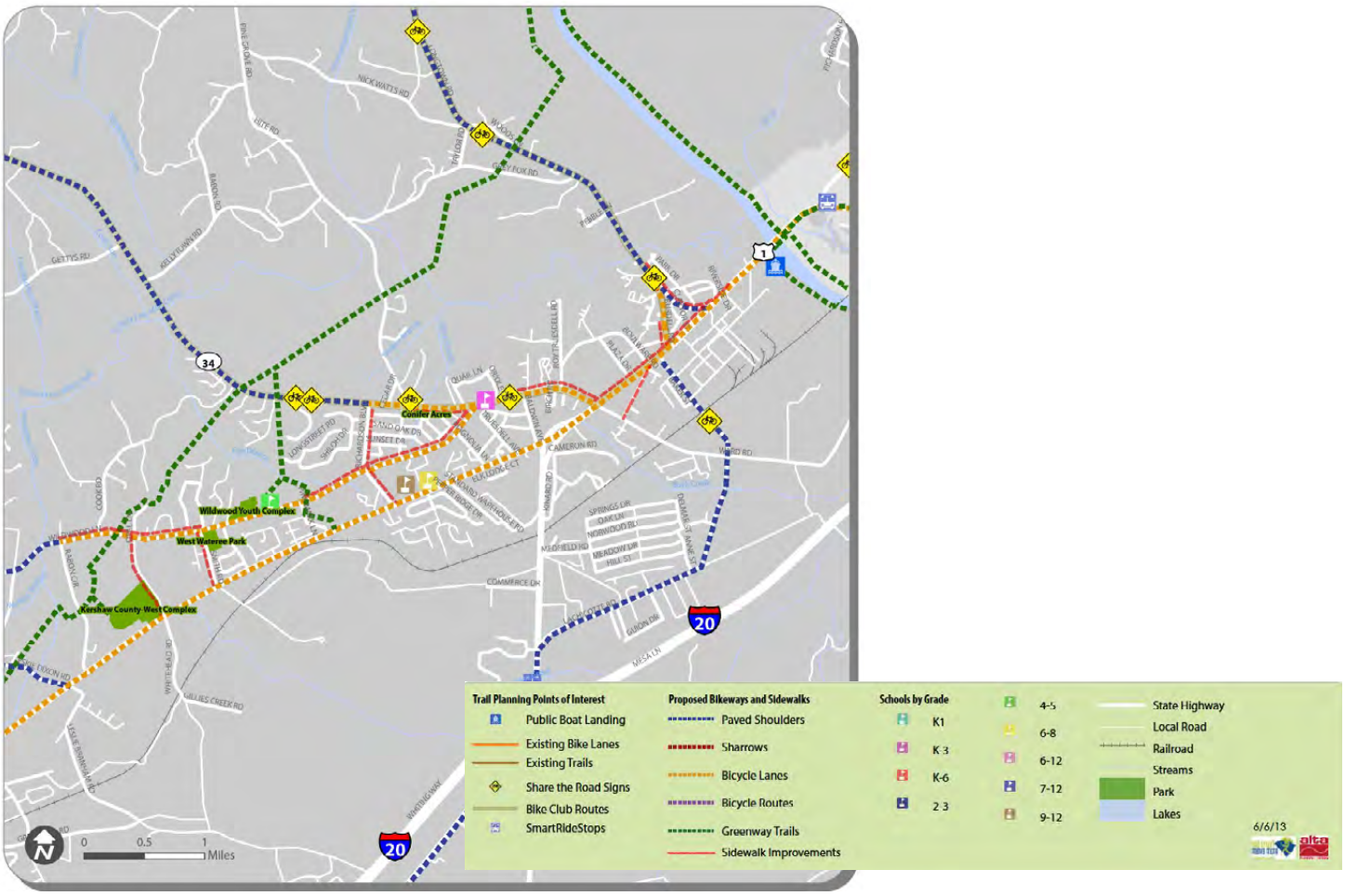
KERSHAW COUNTY BICYCLE, PEDESTRIAN AND GREENWAY MASTER PLAN

In 2012, Eat Smart Move More Kershaw County (ESMMKC) received a grant from the Healthy South Carolina Initiative to develop a bicycle, pedestrian, and greenways master plan for Kershaw County. ESMMKC's vision for Kershaw County is "to have a community in which there are mixed use neighborhoods focused on health, wellness, and sustainable living."

The Kershaw County Bicycle, Pedestrian, and Greenways Plan combines past planning efforts with new research and analysis, and includes a full public input process. A proposed on- and off-street bikeway, walkway, and trail network is included in this Plan, as well as recommended policies and programs to encourage usage of the bikeway, walkway, and trail network and to promote safe bicycling, walking, and driving practices. The plan specifically recommended bicycle lanes and sidewalks along the Wildwood Lane corridor, as well a greenway and sidewalk connections to adjacent parks.

WEST WATEREE TRANSPORTATION STUDY

Kershaw County and the Central Midlands Council of Governments completed a plan to focus on identifying the right balance between growth, transportation needs, and the community's desires for the future. The West Wateree Transportation Study is considering mobility, safety, convenience, and comfort for all modes of transportation coupled with the impact to adjoining land uses and the unique character of the area. The sub-area under study is the southwest corner of Kershaw County, including Elgin and Lugoff.



The Kershaw County Bicycle, Pedestrian and Greenway Master Plan recommended a network and bicycle and pedestrian facilities throughout the County.

PROJECT IDENTIFICATION & BASE MAP

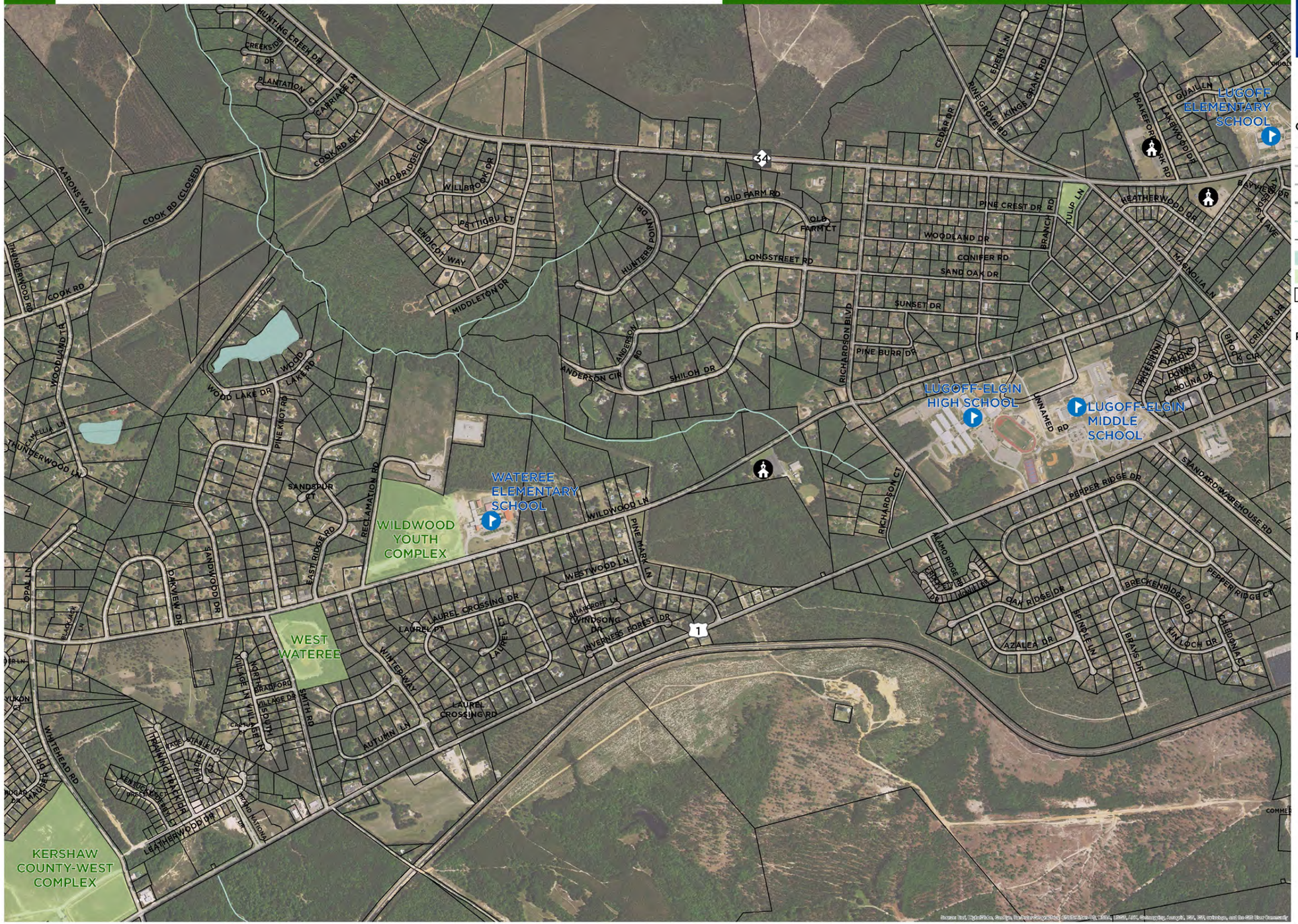
Project stakeholders selected Wildwood Lane to be the focus of a corridor improvement study, based on the key findings and priority recommendations of previous planning documents, and its potential to dramatically increase connectivity for Lugoff residents. Based on GIS data provided by the County and its partners, the project team created a map illustrating the study area and its existing context.

The Wildwood corridor is home to four schools and multiple parks, so increasing active access to these facilities will increase opportunities for physical activity in the community.

COMMUNITY BASE MAP

O OVERVIEW MAP

WILDWOOD LANE CORRIDOR MASTER PLAN



OVERLAYS

- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
- RECREATION AREA
- PARCELS

POINTS OF INTEREST

- CHURCH
- SCHOOL

0 FEET 500

0 MILES 0.25

NORTH

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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, too. 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, Kershaw County has a pedestrian fatality rate of 1.35 deaths per 100,000 people, slightly higher than the state rate of 2.3 deaths per 100,000 people.

While reasons for the increase in pedestrian crashes are difficult to pinpoint, demographic shifts, more people walking, and higher numbers of pedestrians on dangerous, high-speed arterials all likely play a role. A number of factors impact pedestrian safety. Visibility, driver and pedestrian 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 built primarily for the purpose of motor vehicle throughput over other purposes. Similarly, **78.8% of South Carolina's pedestrian fatalities occurred on roads with a speed limit of 40 mph or higher.**[6]

Pedestrian Fatality Figures for South Carolina:

	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%

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 years-old, 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 injury-causing 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 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.

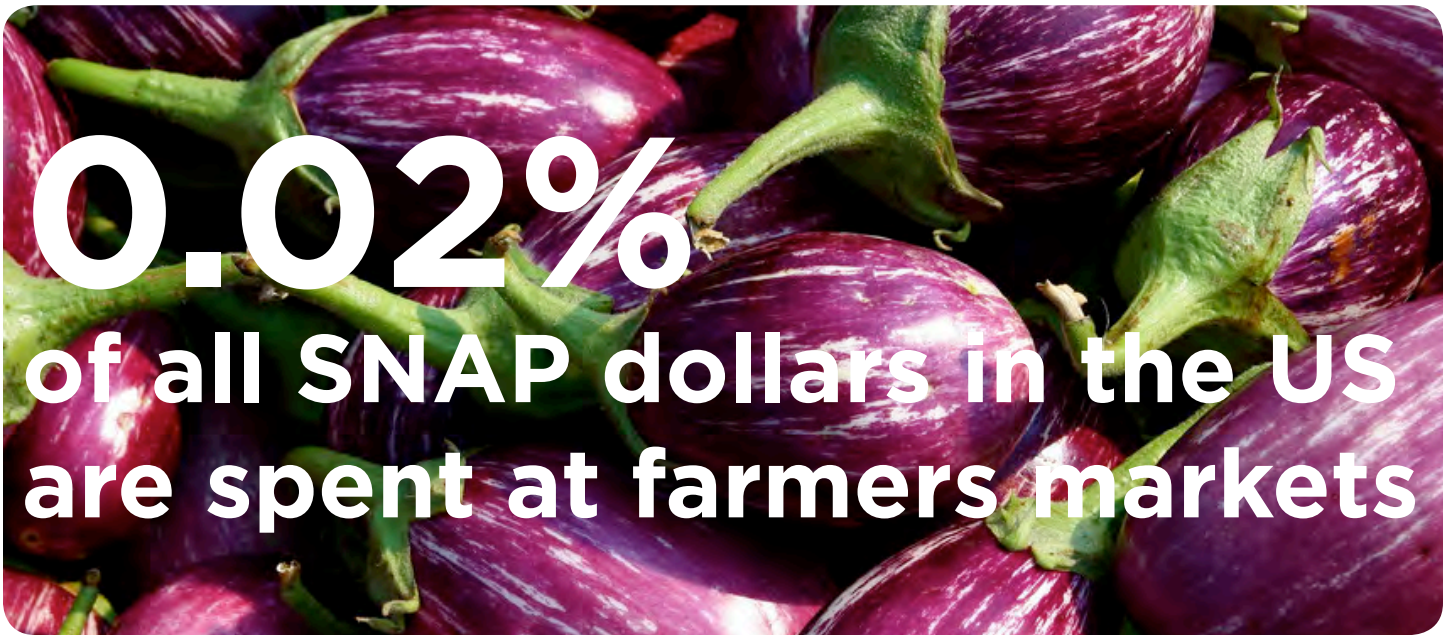
[6] Dangerous by Design - South Carolina
[7] Federal Highway Administration Office of Safety - Bike/Ped Documents *Police-reporting of Pedestrians and Bicyclists Treated in Hospital Emergency Rooms*
[8] *Smart Growth America Senate Fact Sheet*

HEALTHY FOOD AND EQUITY ANALYSIS OVERVIEW

An equity analysis provides insight about the areas of Lugoff that have higher concentrations of vulnerable populations. When coupled with an overlay of healthy food outlet locations the results of the analysis bring attention to neighborhoods or corridors which may be most in need of improvements. For physical activity, the analysis sheds light on residents' access to resources that are essential to a healthy lifestyle.

This quantitative analysis provides a starting point for identifying priority areas, however, the Plan's recommendations are based on a synthesis of factors, including the equity analysis results, current best practices, stakeholder input, existing conditions analysis, and the pedestrian collision analysis,

Healthy Food Access Analysis was completed through the Kershaw County Bicycle, Pedestrian and Greenways Master Plan process. The mission of Eat Smart Move More Kershaw County is "to coordinate collaborative and sustainable efforts to support healthy eating and active living where Kershaw County residents live, learn, work and play." Recognizing that bicycle and pedestrian infrastructure and access to outlets for healthy foods are inextricably linked, this chapter provides an analysis of the existing conditions for accessing healthy food by way of active transportation. More than six percent of Kershaw County households do not have access to a vehicle and nearly 30 percent have access to only one. These statistics highlight the importance of providing active transportation choices for Kershaw County's most vulnerable community members to access healthy foods.



HEALTHY FOOD ACCESS

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.

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 ofactive 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.

METHODOLOGY

Alta prepared a spatial analysis to assess where residents in the County currently have access to fresh fruits and vegetables via active modes of transportation. The locations of full service grocery stores, farmers markets and farm stands were mapped. Using these food sources as the destination points, walk and bike "sheds" were mapped. The walk and bike sheds encompass the area from which residents could likely access the fresh food source via walking or cycling. The analysis uses the actual road network distance from the fresh food source, which results in an irregular shape as they align with the actual distance walked, not the linear (crow flies) distance from the fresh food source. This analysis was based on average trip distances identified the 2009 National Household Travel Survey. Average distances used in this analysis are:

- Walk: 0.5 mile distance from food source
- Bike: 1.5 mile distance from food source

Once the Walk/Bike sheds were mapped, we considered the proximity of vulnerable populations in Kershaw County to fresh food sources and their relationship to active transportation. Analysis is limited in that demographic data was only available at the Census Tract level. Population data is available at the block level and is shown to provide context.

For the purposes of this analysis the demographic categories include:

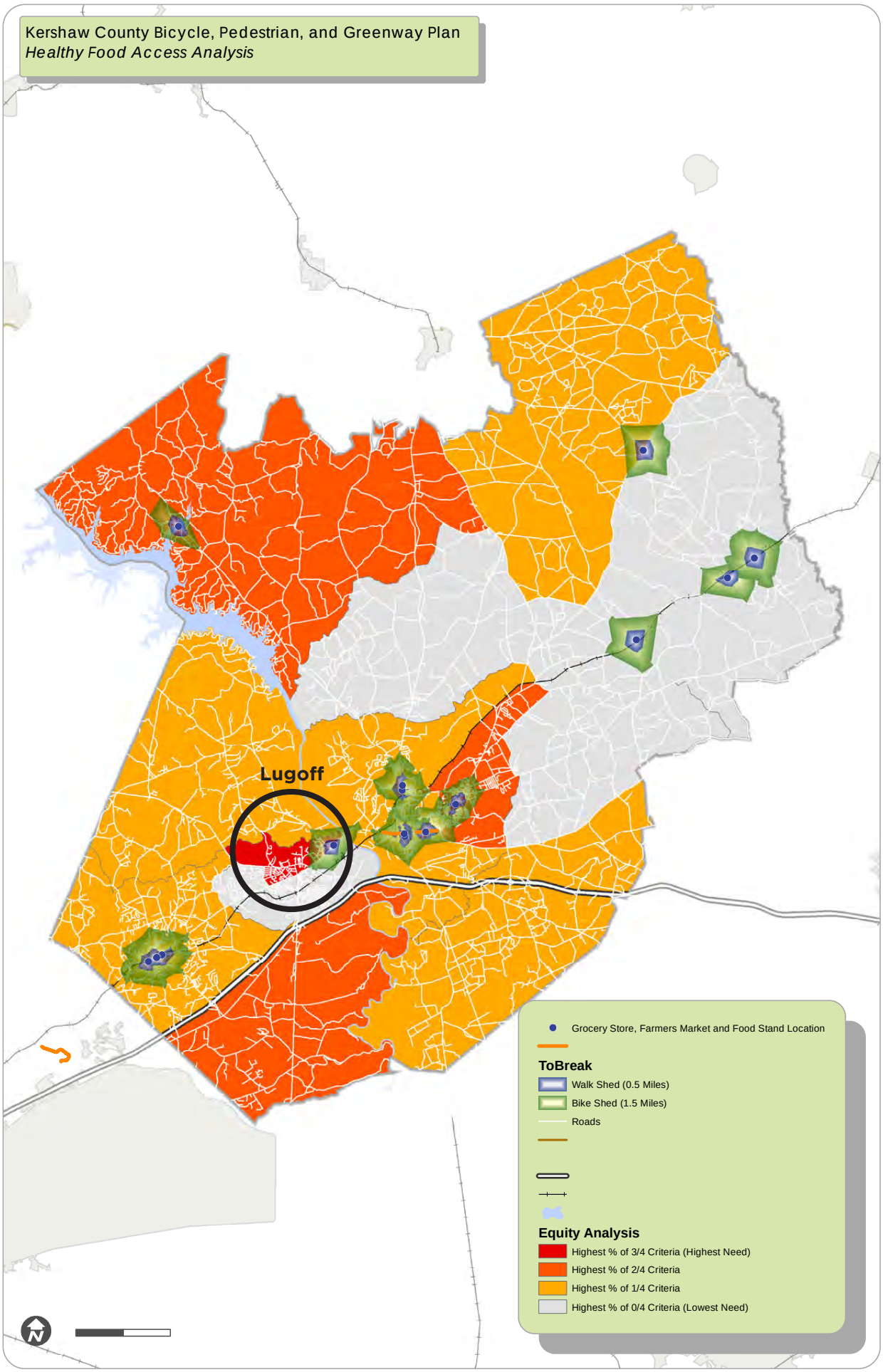
- Youth under 18 years old
- Aging Population over 60
- Households with zero vehicles available
- Households at or below the federal poverty level

Note that fresh food sources in the adjacent counties were reviewed to determine if they could reasonably serve residents of Kershaw County. There are no full service groceries, farmers markets or farm stands within 3 miles of the Kershaw County border precluding reasonable access by bicycling or walking.

Analysis

On average **about ten percent of the County population lives within the walk/bike shed from fresh food sources**. The percentage of population or households that are within the walk/bike sheds ranges from 11.5 percent to 14.5 percent.

The food access analysis identifies areas where concentrations of target populations, which may have limited access to a vehicle, overlap with the walk/bike shed of healthy food outlets. (See map on the following page.) The analysis of Kershaw County revealed two priority areas for improving bicycle and pedestrian access to healthy foods. **One priority area is due west of Lugoff: creating safe and inviting bikeways and walkways from the residential areas along Ridgeway Road to the Food Lion on U.S. 1.**


Kershaw County Bicycle, Pedestrian, and Greenway Plan
Healthy Food Access Analysis
Lugoff
Grocery Store, Farmers Market and Food Stand Location
ToBreak
Walk Shed (0.5 Miles)
Bike Shed (1.5 Miles)
Roads
Equity Analysis
Highest % of 3/4 Criteria (Highest Need)
Highest % of 2/4 Criteria
Highest % of 1/4 Criteria
Highest % of 0/4 Criteria (Lowest Need)

HEALTH RISKS

Kershaw County is considered part of the CDC-designated "Diabetes Belt", and the South Carolina Department of Health and Environmental Control (SC DHEC) offers a number of strategies and solutions to combat obesity including, eating more meals at home, eating more fruits and vegetables on a daily basis, opting for water over a soda or other sugary beverage, and right-sizing portions. The CDC recommends eating healthy and staying active as two key ways to prevent, delay, and manage diabetes.

Specific health risk data at the community level does not exist for Lugoff, however, county-level data shows that:

- **Approximately 32% of Kershaw County adults are obese.** (Obesity is measures as a Body Mass Index [BMI] greater than 30)
- **Over 12% of adults have type 2 diabetes**
- **33.3% of children are overweight or obese**
- **Almost 47% of adults consume less than one serving of fruit daily**
- **Over 22% of adults consume less than one serving of vegetables daily**
- **The food insecurity rate for the county is 14.3%.** This is slightly lower than the state average of 16.4%.

PHYSICAL ACTIVITY AND HEALTH

Walking can be a critical form of transportation, particularly for older adults who no longer drive, young or disabled people who cannot drive, and for people who do not have access to a vehicle. Apart from walking as a means for transportation, 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. The parks and recreation facilities in Marion provide ample access to exercise opportunities, however, accessing these destinations on foot is challenging.

State-level physical activity data show that:

- **26.2% of South Carolina's adults** reported that during the past month, they **had not participated in any physical activity.**

- **43.9% of all adults meet physical activity recommendations.** This is 8.8% lower than the national rate.

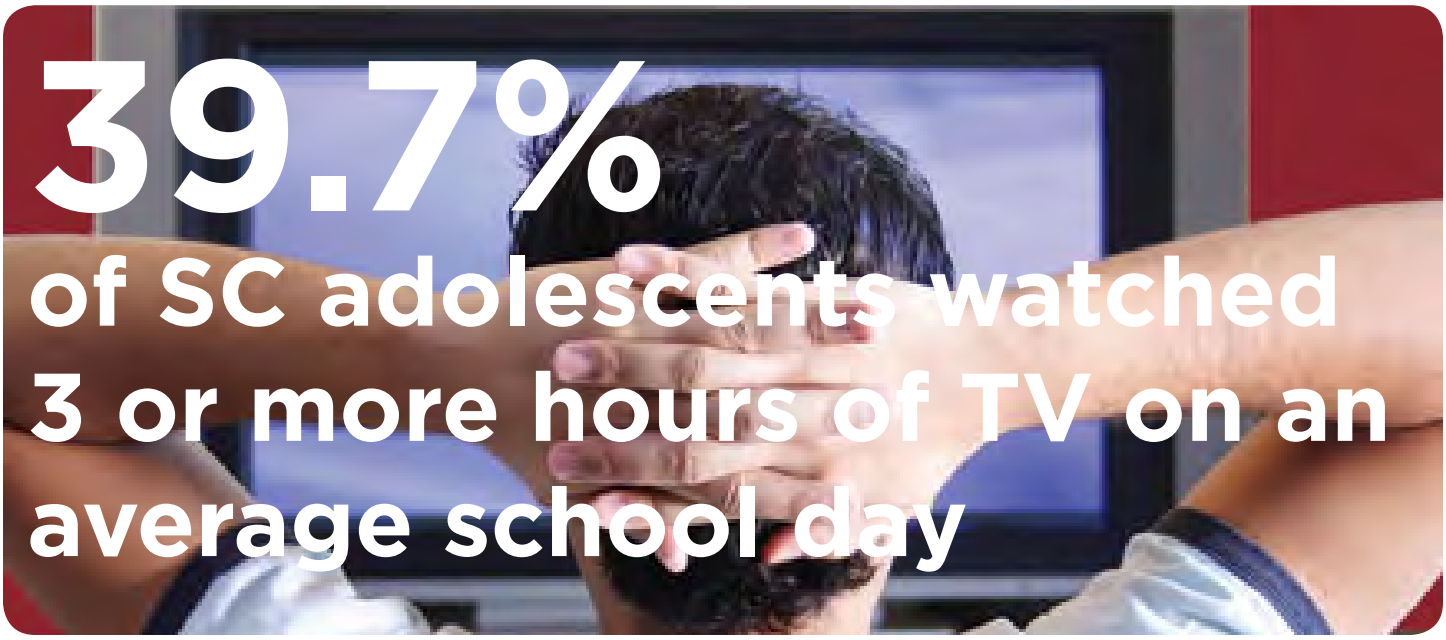
- **21.3% did not participate in at least 60 minutes of physical activity** on any day during the 7 days prior to the survey.

Additionally, data on youth physical activity show that:

- **Percent of children in poverty is steadily increasing at 27% in South Carolina**, 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.**

Physical inactivity and obesity rates in SC have consistently worsened over the past few years. One way to reverse this trend, apart from diet and exercise, is to expand mobility options. Providing the freedom to walk to places supports a healthy lifestyle. In turn, this boosts not only the community's physical activity level, but also increases mobility, accessibility, and quality of life for all residents. **The Wildwood corridor is home to four schools and multiple parks, so increasing active access to these facilities will increase opportunities for physical activity in the community.**



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STAKEHOLDER AND FOCUS GROUP INVOLVEMENT

We shall ***give people the opportunity to have a meaningful impact*** *on the development of plans and programs that may affect them. Participation should be broad enough to include those who lack formal organization or influence.*

– AICP Code of Ethics

PROJECT VISION

Kershaw County and Lugoff are **healthy and active communities** with **safe and inviting places to walk** for both residents and visitors. Residents of all ages, abilities, and backgrounds **enjoy active transportation**, opportunities for physical activity, **access to healthy foods**, and a **high quality of life.**

PROJECT GOALS

- **Connect neighborhoods** and their residents to parks and schools
- Improve **pedestrian connectivity** between local destinations
- **Increase awareness** of safe and enjoyable places to walk
- Identify **near-term, capital improvement projects** that will **positively impact the walking and biking environment**
- **Leverage other capital improvement projects** already underway or planned
- **Engage the strong network of community partners** working to improve Kershaw County in efforts that **advance walkability**
- **Walkability** and a **high quality of life** as a cornerstone of the Kershaw County's **community image**

OUTREACH SUMMARY

At the center of the planning process was the multi-day charrette conducted by the project team. Charrette activities included multiple progress presentations, stakeholder input sessions, and meetings with a variety of local representatives. The adjacent agenda shows what each day held for charrette participants.

What is a charrette?

"Charrette" has come to describe the rapid, intensive, and creative work session in which a design team focuses on a particular design problem and arrives at a collaborative solution. Charrettes are solution-oriented.

Charrette Schedule

TUESDAY FEBRUARY 28

12PM	Design Team Arrival
3PM	Kick-Off Meeting
4PM	Driving Tour with Steering Committee

WEDNESDAY MARCH 1

9AM	SCDOT, MPO/COG, and County Staff Meeting
10AM	Utilities Meeting
11AM	Selected Property Owners
1PM	Open Studio Session
3:30PM	School Representatives
6PM	Project Update & Public Design Pin-Up Session

THURSDAY MARCH 2

8AM-NOON	Studio Session
5PM	Stakeholder presentation of preliminary recommendations

CHARRETTE RESULTS

PROJECT STAKEHOLDERS & COUNTY STAFF KICK-OFF MEETING (TUESDAY)

During this working meeting, guidelines, actions, methods, processes, and goals were identified. The charrette agenda was reviewed and input sessions established.

The base maps were reviewed and approved for use as the existing conditions map. The
Elected officials and county staff shared their goals and vision for the project including potential priority corridors to be evaluated. Prior to this meeting, the Project Team toured the corridors several times with local stakeholders, noting special interest areas, opportunities, and constraints.

STAKEHOLDER PRESENTATION OF PRELIMINARY RECOMMENDATIONS (THURSDAY)

The intensive research, field work, and analysis portions of the charrette led project team members to glean information about current walking conditions in the community, and to develop **targeted recommendations for addressing existing opportunities and constraints** related to walking. The following were identified as opportunities:

- Potential **partnership with schools and parks** to initiate and champion programmatic walking efforts and also to solicit funding for infrastructure improvements to encourage students to walk to school
- Enhance **neighborhood streets** where people already like walking and replicate those **pedestrian-friendly spaces** elsewhere across the community
- **Leverage the existing sidewalk network** to create a more complete network by filling in critical gaps and expanding width for shared use with bicycling.

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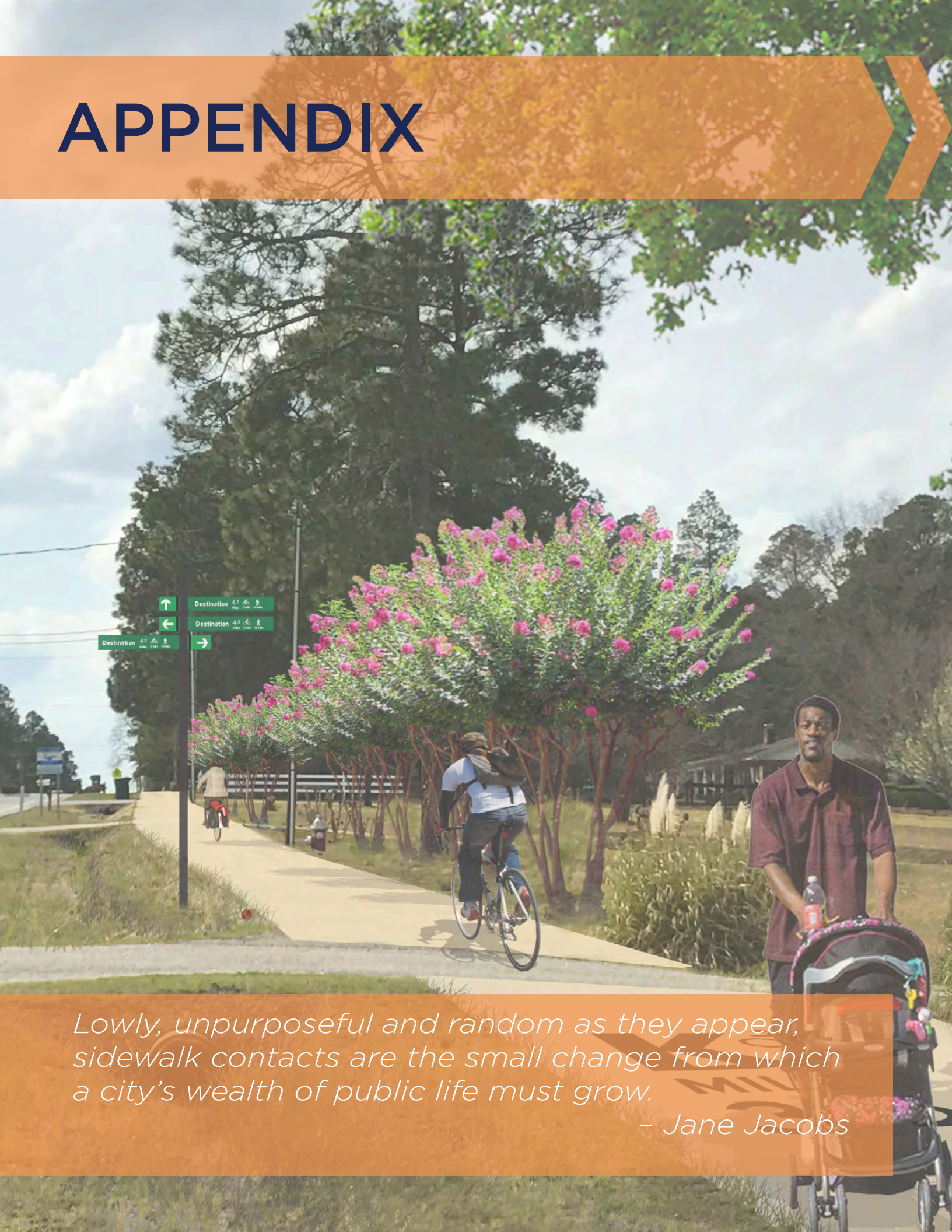
APPENDIX



Lowly, unpurposeful and random as they appear, sidewalk contacts are the small change from which a city's wealth of public life must grow.

– Jane Jacobs

APPLICABLE DESIGN GUIDELINES

OVERVIEW

At the state and national levels, there are existing guidelines that apply to pedestrian facilities, as well as shared use paths and bicycle facilities. While these documents are not absolute standards, many public agencies require projects to meet the guidelines as a minimum condition for key dimensions including slope, horizontal and vertical clearances, and surface condition, signage, and pavement markings.

The guidelines recommended in this document are intended to assist Lugoff staff and consultants in the selection and design of pedestrian facilities and their ancillary facilities. The standards draw together best practices by facility type from public agencies and municipalities nationwide. In addition, all applicable local design and construction standards will need to be followed.

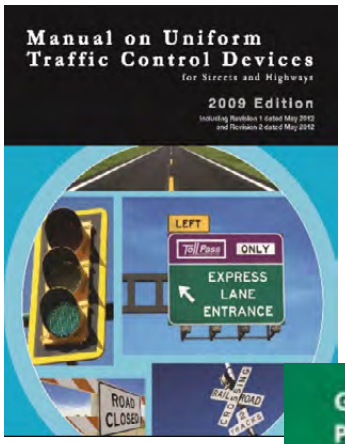
National Guidelines

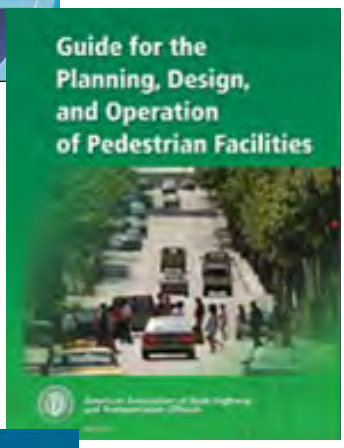
- Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD) defines the standards used by road engineers nationwide to install and maintain traffic control devices on all public streets, highways, trails, and private roads open to public traffic. The MUTCD is the primary source for guidance on lane striping requirements, signal warrants, and recommended signage and pavement markings.
- American Association of State Highway and Transportation Officials (AASHTO) Guide for the Planning, Design, and Operation of Pedestrian Facilities provides guidance on dimensions, use, and layout of specific pedestrian facilities. The standards and guidelines presented by AASHTO provide basic information, such as minimum sidewalk widths, and recommended signage and pavement markings.
- The United States Access Board's proposed Public Rights-of-Way Accessibility Guidelines (PROWAG), the ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities, the 2010 ADA Standards for Accessible Design (2010 Standards) which contains standards and guidance for the construction of accessible facilities. This includes requirements for sidewalk curb ramps, slope requirements, and pedestrian railings along stairs. Some of these treatments are not directly referenced in the current versions of the AASHTO Guide or the 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.

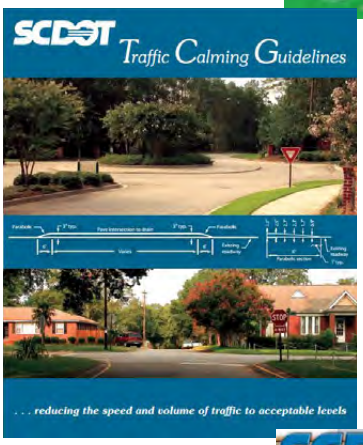
State Guidelines

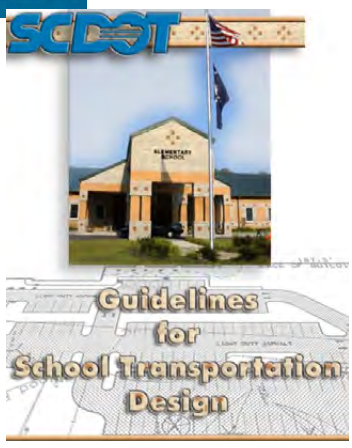
SCDOT has published a number of technical documents for traffic engineering which are available online. Specific publications and manuals include:

- *SCDOT Supplement to the MUTCD*
- South Carolina Department of Transportation *Highway Design Manual and Engineering Directive Memoranda*
- *2009 Edition of Signal Design Guidelines* which details standard methodology of handling signal requests, as well as the review, design, installation, operation, and maintenance of traffic signals.
- *Guidelines for School Transportation Design* is a supplement to SCDOT's Access and Roadside Management Standards (ARMS) and offers design assistance to maintain safe and efficient traffic operations in and around school premises.
- *Railroad Inspection Procedure Manual* provides guidance for grade crossing inspectors, ensuring compliance and uniformity.
- *Traffic Calming Guidelines* provides guidance concerning traffic calming by describing eligibility requirements, application forms, various traffic calming measures, and construction specifications.









DESIGN NEEDS OF PEDESTRIANS

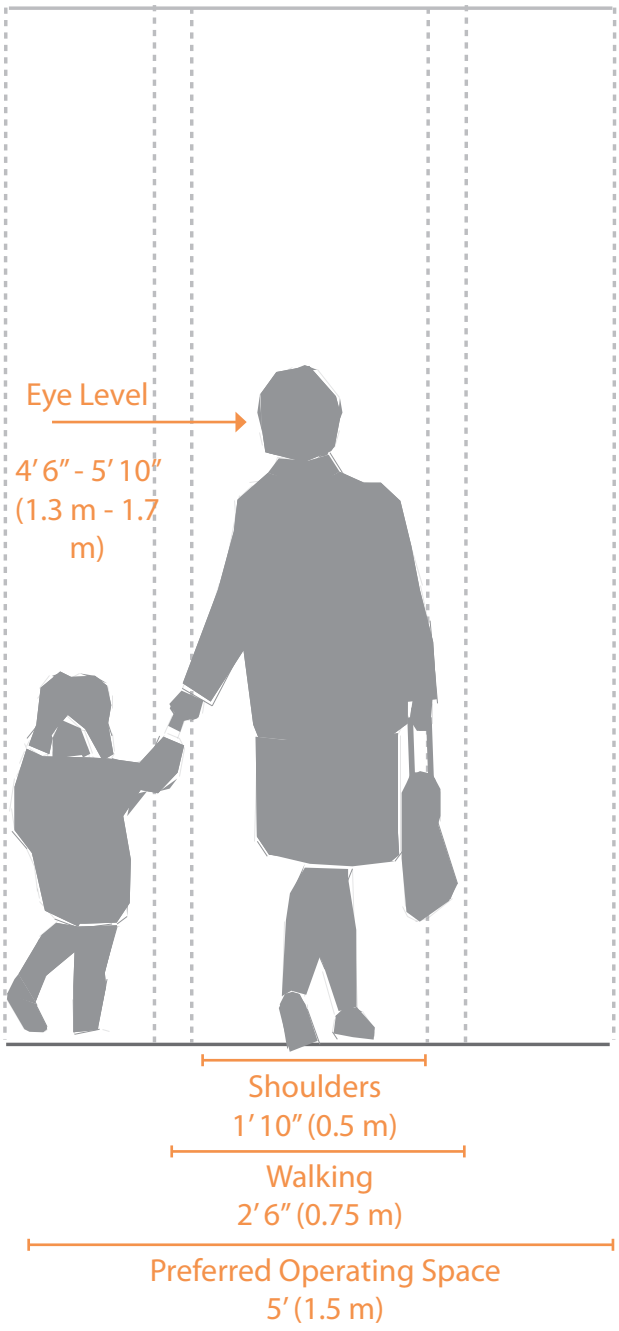
No one pedestrian is the same. Each pedestrian has a variety of characteristics and the network of pedestrian facilities in Lugoff should accommodate a variety of needs, abilities, and possible impairments. Age is one major factor that affects pedestrians' physical characteristics, walking speed, and environmental perception. Children have low eye height and walk at slower speeds than adults. They also perceive the environment differently at various stages of their cognitive development. Older adults walk more slowly and may require assisted devices for walking stability, sight, and hearing. The adjacent table summarizes common pedestrian characteristics for various age groups.

As a rule of thumb, the MUTCD recommends a normal walking speed of three and one 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 pedestrian network should accommodate these users to the greatest reasonable extent.

Pedestrian Characteristics by Age

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 Pedestrian Facilities. 2004. Exhibit 2-1.


Eye Level
4′ 6″ - 5′ 10″
(1.3 m - 1.7 m)
Shoulders
1′ 10″ (0.5 m)
Walking
2′ 6″ (0.75 m)
Preferred Operating Space
5′ (1.5 m)

DESIGN NEEDS OF MOBILITY ASSISTED DEVICE USERS

As the American population ages, the number of people using mobility assistive devices (such as manual wheelchairs or powered wheelchairs) increases.

Manual wheelchairs are self-propelled devices. Users propel themselves using push rims attached to the rear wheels. Braking is done through resisting wheel movement with the hands or arm. Alternatively, a second individual can control the wheelchair using handles attached to the back of the chair.

Power wheelchairs use battery power to move the wheelchair. The size and weight of power wheelchairs limit their ability to negotiate obstacles without a ramp. Various control units are available that enable users to control the wheelchair movement, based on user ability (e.g., joystick control, breath controlled, etc).

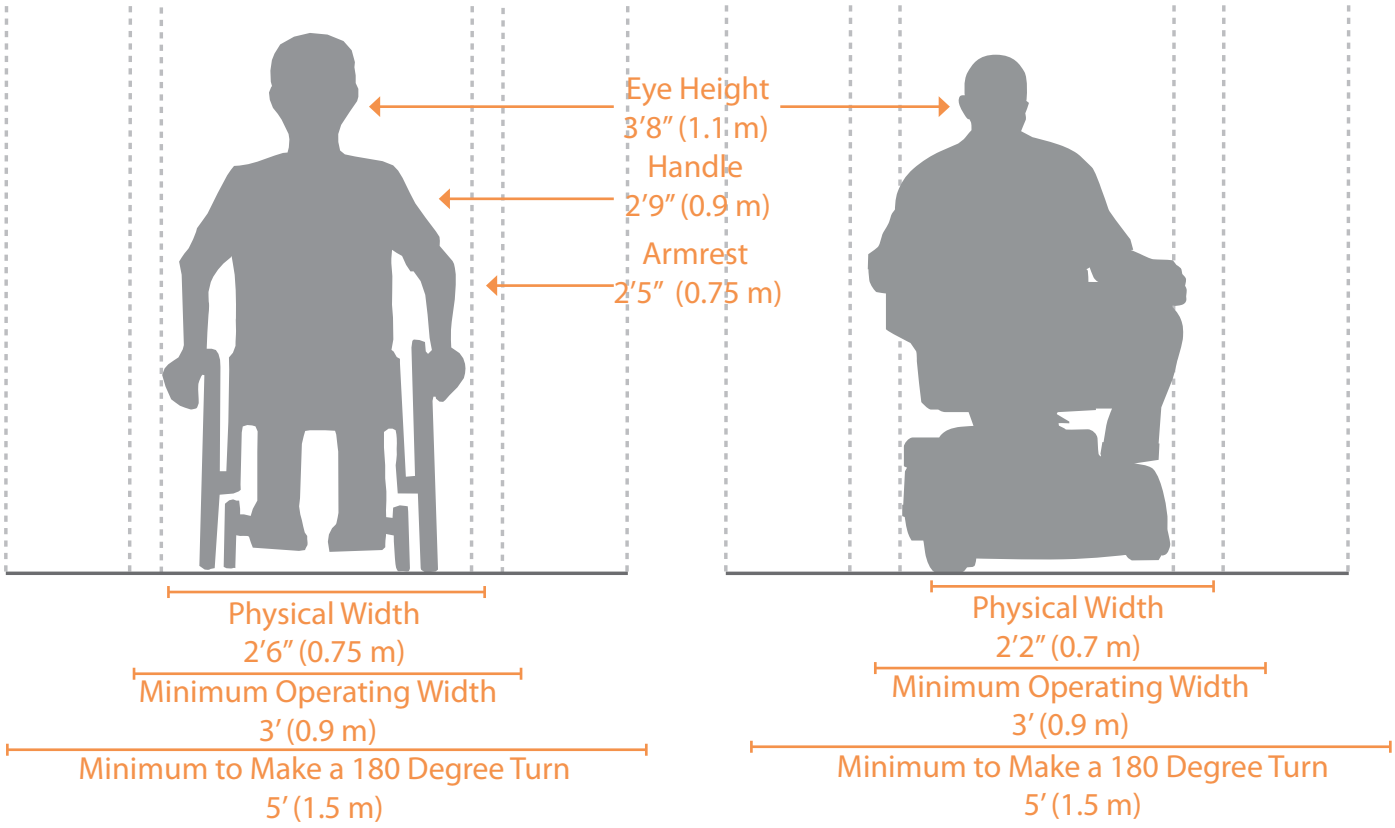
Maneuvering around a turn requires additional space for wheelchair devices. Providing adequate space for 180 degree turns at appropriate locations is an important element for accessible design.

Wheelchair User Typical Speed

User	Typical Speed
Manual Wheelchair	3.6 mph
Power Wheelchair	6.8 mph

Wheelchair User Design Considerations

Effect on Mobility	Design Solution
Difficulty propelling over uneven or soft surfaces.	Firm, stable surfaces and structures, including ramps or beveled edges.
Cross-slopes cause wheelchairs to veer downhill.	Cross-slopes of less than two percent.
Require wider path of travel.	Sufficient width and maneuvering space.



Source: FHWA. Characteristics of Emerging Road and Trail Users and Their Safety. (2004).

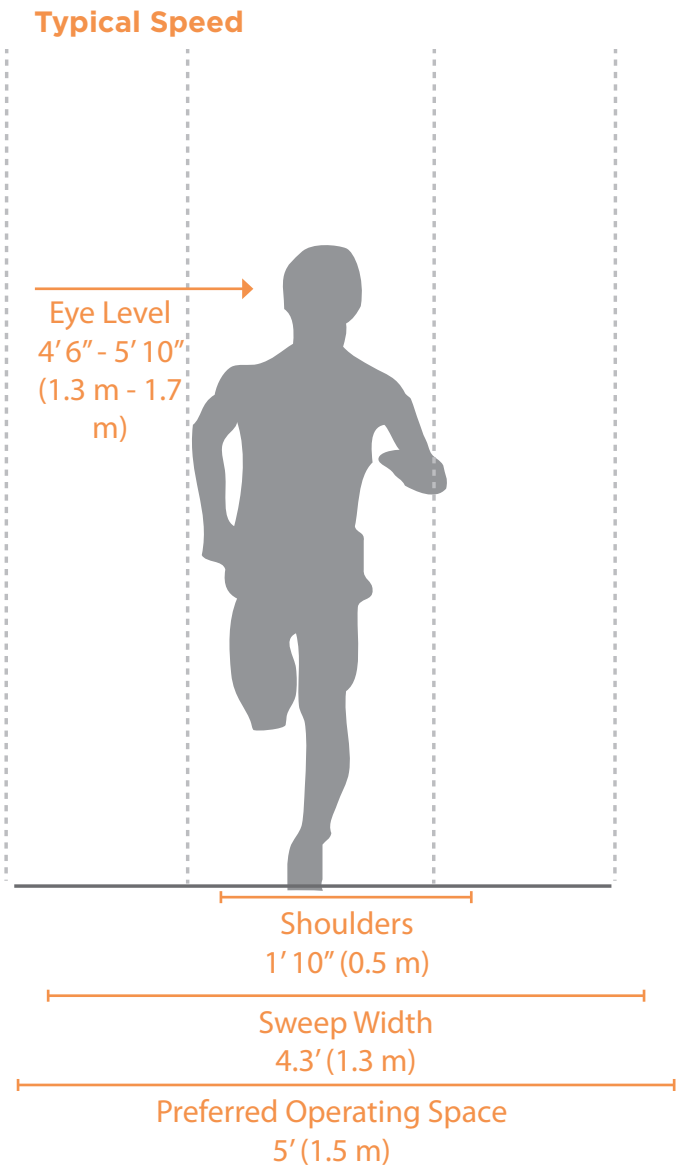
DESIGN NEEDS OF DOG WALKERS

Dog walking is a common and anticipated use on sidewalks. Dog sizes vary largely, as does leash length and walking style, leading to wide variation in possible design dimensions.

Sidewalks designed to accommodate wheelchair users are likely to provide the necessary dimensions for the average dog walker. Amenities such as dog waste stations, particularly in downtown and residential settings, enhance conditions for dog walkers.

DESIGN NEEDS OF RUNNERS

Running is an important fitness and recreation activity commonly performed in neighborhoods, in and around parks, across college campuses, and through downtown.



Source: FHWA. Characteristics of Emerging Road and Trail Users and Their Safety. (2004).
USDOJ. 2010 ADA Standards for Accessible Design. (2010).

WAYFINDING

The ability to navigate through a community is informed by landmarks, natural features, and other visual cues. Wayfinding signs should indicate:

- Direction of travel
- Location of destinations
- Location of access points

Wayfinding signage can also include minutes to reach destinations, and calories burned by walking there.

These signs increase a pedestrian's comfort and accessibility to key destinations across the community. Wayfinding signage can serve many purposes including:

- Helping to familiarize users with the community's sidewalk network and the areas it reaches
- Helping users identify the best routes to destinations
- Helping overcome a "barrier to entry" for people who do not currently walk
- Wayfinding signs also visually cue motorists that they are driving near a pedestrian-oriented corridor and should use caution. Signs are typically placed at key locations leading to and along routes, including the intersection of multiple routes.

AMENITIES

When designing functional, attractive, and inviting streetscapes, the small details matter. Elements such as a lighting fixtures, public art, benches, and other amenities help create a unique identity for each community. It is important that these details work together to create a complete experience for all users.

Trash & Recycle Receptacles

Trash and recycle receptacles provide for proper maintenance and appearance of the pedestrian facilities system. For recycling receptacles, signage should be provided indicating what recyclables are accepted. Consider including educational signage about the importance of recycling and the environmental benefits.

Guidance

- Locate receptacles at each intersection and each seating area (one per every two benches).
- Placement of other receptacles will depend upon the location of concessions, facilities and areas of group activities.
- Receptacles need to be accessible to maintenance personnel.
- Receptacles should be selected using the following criteria:
  - Expected trash/recycling amount
  - Maintenance and collection program requirements
  - Durability
- Receptacles should be appropriately situated on the sidewalk so as not to interfere with pedestrian movement.

Seating

Seating along sidewalks and paths provides a place for users to rest, congregate, contemplate, or enjoy art, nature, and interpretive elements. Benches can be designed to support the community's identity or be strictly utilitarian.

Guidance

- Locate benches along streetscapes where appropriate, or where there is a demand by users. Providing seating at every block is the goal.
- Provide benches in areas that provide interesting views, are close to other amenities like trash receptacles and lighting, and offer shade.
- Drainage should slope away from the bench.
- Wheelchair access should be possible alongside benches. Provide access with a hardened surface such as concrete or asphalt.
- Seating should be securely anchored to the ground.

Public Art & Sculpture

Public art engages the community through artists' work and creates a memorable experience for pedestrians. Art and sculpture can create an identity for the community and strengthen the emotional connection between the Lugoff and its residents and visitors. Depending on the scale and form, it can become an "event" in itself and serve as a public attraction.

Public art can be aesthetic and/or functional, and double as sitting or congregational areas. Memorable installations can act as landmarks and serve as valuable wayfinding tools. Public art can be a device for telling a compelling and memorable story about the area's history.

Guidance

- Artists can be commissioned to provide art at one or multiple locations throughout Lugoff. When appropriate, artists could be engaged as part of the corridor planning and development process.
- Artists should be encouraged to produce artwork in a variety of materials for sites along the corridor.
- When appropriate, consider developing furnishings and amenities with artistic intent. Key locations could be areas to highlight through the inclusion of public art. Consider how to provide continuity between elements while maintaining the unique styles of multiple artists.
- Provide art displays on streetscapes with anticipated high use and user exposure.
- Consider community based art and temporary installations.

Lighting

Lighting along sidewalks and paths should be analyzed on a case-by-case basis with full consideration of the maintenance commitment lighting requires. In general, lighting is not appropriate for sidewalks where there is little to no development. Lighting can improve visibility along corridors and intersection crossings at night for all pedestrians. Lighting may also be necessary for day-time use in tunnels and underpasses.

Guidance

- Recommended locations for lighting include the following:
  - Entrances and exits of bridges and underpasses and in tunnels
  - Street crossings
  - Central business districts
  - Historic walking route
- Low-cost light emitting diodes (LED) offer a wide range of light levels and can reduce long term utility costs.
- Design lighting levels appropriate to each situation.
- Lighting should be at pedestrian scale.
- Solar powered lighting is available where utility collection is difficult or when alternative energy sources are desired.
- Avoid light fixtures at eye level that could impair visibility.
- Direct glare or excessive illumination on to adjacent properties, streets, or sidewalks should be avoided.

Recommendations Map Enlargements

1 OVERVIEW

WILDWOOD LANE CORRIDOR MASTER PLAN

Kershaw COUNTY SOUTH CAROLINA

BIKE | PED FACILITIES

- SHARED USE PATH
- SIDEWALK

OVERLAYS

- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
- RECREATION AREA
- PARCELS
- 10 MINUTE WALK RADIUS

POINTS OF INTEREST

- CHURCH
- SCHOOL
- X-ING IMPROVEMENTS

FEET
0 100

MILES
0 0.05

NORTH

alta PLANNING + DESIGN

2 CORRIDOR ENLARGEMENTS

WILDWOOD LANE CORRIDOR MASTER PLAN

Kershaw County South Carolina

BIKE | PED FACILITIES

- SHARED USE PATH
- SIDEWALK

OVERLAYS

- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
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- PARCELS
- 10 MINUTE WALK RADIUS

POINTS OF INTEREST

- CHURCH
- SCHOOL
- X-ING IMPROVEMENTS

FEET
0 100

MILES
0 0.05

NORTH

alta PLANNING + DESIGN

3 CORRIDOR ENLARGEMENTS

WILDWOOD LANE CORRIDOR MASTER PLAN

Kershaw COUNTY SOUTH CAROLINA

BIKE | PED FACILITIES

- SHARED USE PATH
- SIDEWALK

OVERLAYS

- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
- RECREATION AREA
- PARCELS
- 10 MINUTE WALK RADIUS

POINTS OF INTEREST

- CHURCH
- SCHOOL
- X-ING IMPROVEMENTS

FEET
0 100

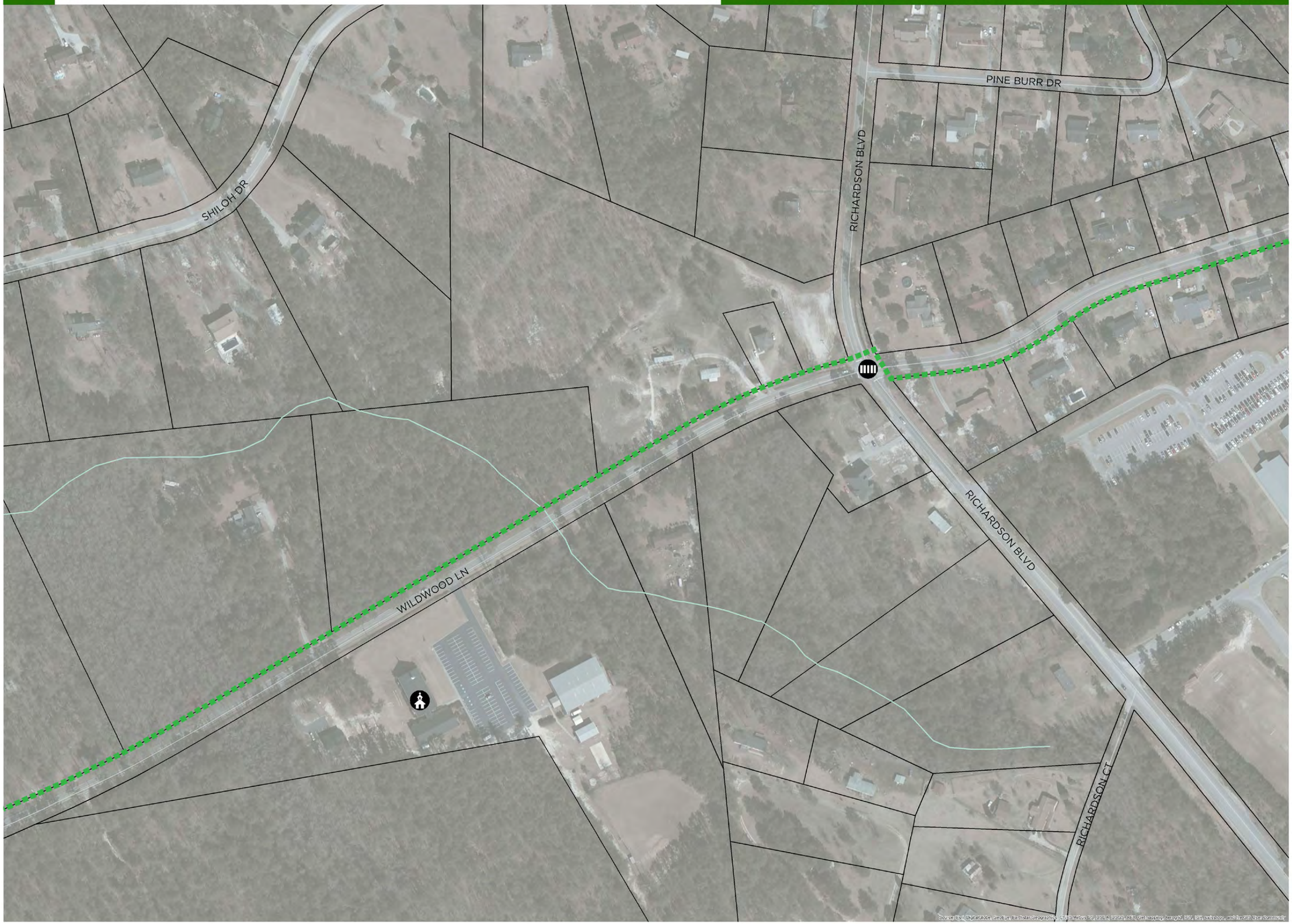
MILES
0 0.05

NORTH

alta PLANNING + DESIGN

4 CORRIDOR ENLARGEMENTS

WILDWOOD LANE CORRIDOR MASTER PLAN



Kershaw County South Carolina

BIKE | PED FACILITIES

- SHARED USE PATH
- SIDEWALK

OVERLAYS

- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
- RECREATION AREA
- PARCELS
- 10 MINUTE WALK RADIUS

POINTS OF INTEREST

- CHURCH
- SCHOOL
- X-ING IMPROVEMENTS

FEET
0 100

MILES
0 0.05

NORTH

alta PLANNING + DESIGN

5 CORRIDOR ENLARGEMENTS

WILDWOOD LANE CORRIDOR MASTER PLAN

Kershaw COUNTY SOUTH CAROLINA

BIKE | PED FACILITIES

- SHARED USE PATH
- SIDEWALK

OVERLAYS

- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
- RECREATION AREA
- PARCELS
- 10 MINUTE WALK RADIUS

POINTS OF INTEREST

- CHURCH
- SCHOOL
- X-ING IMPROVEMENTS

FEET
0 100

MILES
0 0.05

NORTH

alta PLANNING + DESIGN

WILDWOOD LANE CORRIDOR MASTER PLAN

Kershaw COUNTY SOUTH CAROLINA

WILDWOOD YOUTH COMPLEX

WEST WATEREE

SANDWOOD DR

SANDWOOD DR

EAST RIDGE RD

RECLAMATION RD

WILDWOOD LN

SMITH RD

NORTH VILLAGE LN

WINTER WAY

LAUREL PT

LAUREL CROSSING DR

AUTUMN LN

BIKE | PED FACILITIES

- SHARED USE PATH
- SIDEWALK

OVERLAYS

- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
- RECREATION AREA
- PARCELS
- 10 MINUTE WALK RADIUS

POINTS OF INTEREST

- CHURCH
- SCHOOL
- X-ING IMPROVEMENTS

FEET
0 100

MILES
0 0.05

NORTH

alta PLANNING + DESIGN

7 CORRIDOR ENLARGEMENTS

WILDWOOD LANE CORRIDOR MASTER PLAN

Kershaw COUNTY SOUTH CAROLINA

BIKE | PED FACILITIES

- SHARED USE PATH
- SIDEWALK

OVERLAYS

- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
- RECREATION AREA
- PARCELS
- 10 MINUTE WALK RADIUS

POINTS OF INTEREST

- CHURCH
- SCHOOL
- X-ING IMPROVEMENTS

FEET
0 100

MILES
0 0.05

NORTH

alta PLANNING + DESIGN

WILDWOOD LANE CORRIDOR MASTER PLAN

Kershaw County South Carolina

BIKE | PED FACILITIES

- SHARED USE PATH
- SIDEWALK

OVERLAYS

- ROADS
- SC HIGHWAY
- US HIGHWAY
- INTERSTATE
- STREAMS
- RAILROAD
- WATER BODY
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- PARCELS
- 10 MINUTE WALK RADIUS

POINTS OF INTEREST

- CHURCH
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- X-ING IMPROVEMENTS

FEET
0 100

MILES
0 0.05

NORTH

alta PLANNING + DESIGN

COST ESTIMATES

Opinion of Probable Cost - April 2017				
Kershaw County, SC				
SCDHEC Pedestrian Project				
Plans & Specifications by: Alta Planning + Design				
Cost by Priority Project				
Item Description	**Quantity**	**Unit**	**Unit Cost**	**Total**
Wayfinding Signage				
Signage (Gateway, Monument, Wayfinding)	1	LS	$100,000	$100,000
Subtotal				**$100,000**
Mobilization	1.0%			$1,000
Clearing & Grubbing	1.0%			$1,000
Landscaping	5.0%			$5,000
Stormwater Improvements	5.0%			$5,000
Design + Engineering	10.0%			$10,000
Contingency	20.0%			$20,000
Section TOTAL				**$142,000**
Wildwood Lane Shared Use Path				
Shared Use Path	19,925	LF	$144	$2,869,200
Path Crossing Improvements	12	EA	$5,000	$60,000
Major Intersection Improvements	3	EA	$15,000	$45,000
Subtotal				**$2,974,200**
Mobilization	1.0%			$29,742
Clearing & Grubbing	1.0%			$29,742
Additional Landscaping	5.0%			$148,710
Stormwater Improvements	5.0%			$148,710
Design + Engineering	10.0%			$297,420
Contingency	20.0%			$594,840
Section TOTAL				**$4,223,364**
GRAND TOTAL All Projects				**$4,365,364**

Kershaw
COUNTY
SOUTH CAROLINA