



Town of Pendleton, South Carolina Walk- & Bike-Friendly Community Master Plan

December 2016





Acknowledgements

The project team would like to recognize and express appreciation for the myriad of individuals who participated in the development of this Plan. Special thanks to Pendleton Town Council, City Administrator Steve Miller, The Project Steering Committee, and the many engaged residents of Pendleton who contributed their time and energy to the Plan and for their commitment to making Pendleton an active community where bicycling and walking are safe, healthy, fun, and normal daily activities.

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1 Introduction

1.1 Plan Overview

The Town of Pendleton is a town on the move. Recent and current projects like the Town's involvement in the *Green Crescent Trail Feasibility Study*, the Town's downtown Village Green Square, and the Mechanic Street Streetscape Project demonstrate the town's commitment to creating an active and attractive environment for residents, employees and visitors. Through these efforts, the importance of bicycling and walking has emerged as a high priority for the community, both as an amenity that adds to the quality of life for Pendleton residents, and as an asset to attract tourism and stimulate economic development.

The Town of Pendleton Bicycle and Pedestrian Master Plan creates a vision and blueprint for integrating walking and bicycling into the fabric of the community. The Plan is built on a thorough, in-depth analysis of existing conditions and on the needs and aspirations of the community, as expressed through the Plan's engaging public participation process. Through its "Six E's" framework (described further below), the Plan presents recommendations in the areas of engineering, education, encouragement, enforcement, evaluation/planning, and equity, all of which are designed to make bicycling and walking fun, daily, and normal transportation and recreation choices. By prioritizing recommended walkway and bikeway projects and including cost estimates, design guidelines, and funding opportunities, the Plan will guide investments in active transportation and recreation for years to come.

1.2 National Perspective

Many cities and towns across the nation are realizing the great impact that the relatively small investment in more livable transportation options and public spaces can have in their communities. While investments in active and livable communities are certainly not a panacea for the economic, health, and transportation safety issues that many communities face, such investments have been shown to have a significant impact on these issues. The sections presented below show some of the acute health, safety and economic issues many cities today face and the ways in which improved active transportation and recreation can have a positive impact on these.

1.2.1 Economy

Issues

- Traffic congestion in 2011 caused Americans in cities to travel an additional 5.5 billion hours, purchase an additional 2.9 billion gallons of fuel, and spend an additional \$121 billion in gas. This means, on average, each car commuter spends roughly 40 hours and over \$800 per year waiting in traffic.



Opportunities

- Several local and regional planning efforts over the past few years have resulted in **increased investment and revitalization in Pendleton that have made the town a regional destination for shopping, dining, and recreation**. Recent additions within the town, including the downtown placemaking improvements have resulted in increased investment and supported Pendleton as a thriving place. This plan seeks to build upon these recent efforts to continue the town's progress and promote bicycling and walking as means for daily transportation and recreation.
- Reducing the number of vehicular lane-miles through road-diets and other methods decreases wear and tear from motor vehicles. Replacing these with pedestrian facilities, bicycling facilities or transit capacity increases transportation capacity with less investment.
- Reducing the dependence on personal motor vehicles decreases personal and family expenditures on autos, potentially saving thousands of dollars per family annually.
- Reports have shown that pedestrians and bicyclists spend more, on average, than motorists.
- Bikeways and trails across many regions and cities have been shown to have a major economic impact. For example, following the opening of the Greenville, SC Swamp Rabbit Trail in 2011, most businesses along the trail saw a 30%-50% increase in sales after the trail opened, and businesses that relocated to the trail observed a 30% to 90% increase in sales.
- Pedestrian and bicycle infrastructure projects create 8–12 jobs per \$1 million of spending. Road infrastructure projects create 7 jobs per \$1 million of expenditures (Garrett-Peltier, 2011)
- Focusing investment in Pedestrian and Bicycle Infrastructure Improvements has proven to be more cost effective than vehicular infrastructure across the board.

1.2.2 Health

Issues

- “Obesity costs American companies \$225.8 billion per year in health-related productivity losses.”
- “The estimated annual health care costs of obesity-related illness are a staggering \$190.2 billion or nearly 21% of annual medical spending in the United States. Childhood obesity alone is responsible for \$14 billion in direct medical costs.”

Opportunities

- A recent study shows that people who live within 0.6 miles of a pedestrian and bicycle path get 45 minutes more of exercise a week, on average.
- “A 5% increase in walkability [has been found] to be associated with a per capita 32.1% increase in time spent in physically active travel, a 0.23-point reduction in body mass index, 6.5% fewer vehicle miles traveled, 5.6% fewer grams of oxides of nitrogen (NOx) emitted, and 5.5% fewer grams of volatile organic compounds (VOC) emitted.”
- Studies have shown that increased amounts of physical exercise, including walking and bicycling, improves mental well-being.



1.2.3 Safety

Issues

- Higher traffic speeds result in reduced driver response times and increased accident severity. A chance a pedestrian would survive if hit by a car travelling at 20 mph is 95%. This percentage is reduced to 60% at 30mph and 20% at 40mph.
- Nationally, there were over 33,500 traffic fatalities reported in 2012. The Alliance for Bicycling and Walking reports that 14.9% of traffic fatalities are pedestrians or bicyclists, while only 11.4% of all trips are made either walking or bicycling.

Opportunities

- Increasing the number of pedestrians and bicyclists along a corridor, and network-wide, by itself creates a safer environment for these users. Motorists expect the presence of these users and drive more cautiously as a result.
- Complete Streets Improvements that reduce crossing distances for pedestrians and bicyclists, highlight conflict zones, create dedicated roadway space for non-motorized users, reinforce safe roadway behavior, increase visual stimulation or a sense of enclosure, and/or actively reduce speeds through geometric roadway changes foster safer speeds and behavior among all roadway users.



1.3 Planning Process

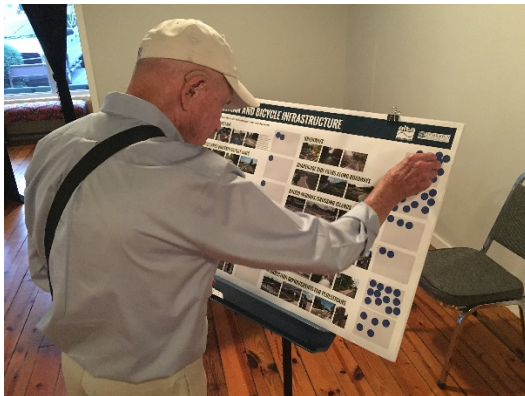
The Town of Pendleton Bicycle and Pedestrian Master Plan was developed through an engaging planning process built on the analysis of critical data and the input and direction of the Pendleton residents, staff, and business community.

1.3.1 Data Collection and Analysis

Through aerial photography, geographic information systems (GIS) data, and on-the-ground field investigation, the project consultants identified opportunities and constraints for bicycle, pedestrian, and greenway facility development. Field research included examining potential trail corridors, examining roadway conditions for the potential inclusion of sidewalks or on-street bikeways, and preparing a photographic inventory of opportunities and constraints in the community. A review of planning documents, policies, bicycle and pedestrian access to outlets for healthy foods, and existing cultural and recreational programs supplemented the analysis of the physical environment.

1.3.2 Public Involvement

Public participation events to engage the citizens and visitors of Pendleton consisted of a public workshop (as part of the Town of Pendleton's Comprehensive Planning Process) and interviews with key community stakeholders. Through these engagement opportunities, the Pendleton community shared their needs and aspirations for walking and bicycling, and provided the input necessary to develop a plan that represents the desires of the community. The project consultants revised the Plan based on feedback received during public involvement to come up with the final, refined Bicycle and Pedestrian Master Plan.



The public meeting was held on September 22, 2016 at the Town of Pendleton's Historic Little Clemson Theater. Residents and stakeholders were given the opportunity to provide bicycle and pedestrian facility routing input, vote on facility type preferences, and provide opinions of programming options for the Town to pursue.

1.3.3 Plan Development

The recommendations of the Bicycle Master Plan reflect the input from the public and Town of Pendleton staff as well as national best practices for bicycle planning in communities of similar size and conditions. The Plan includes network and infrastructure recommendations for a connected bicycle and



trail system that take into account issues such as safety, grades, route directness, barriers, and system connectivity. In addition, the Plan includes non-infrastructure recommendations to promote safe bicycling and bringing about cultural change to make bicycling part of daily life in Pendleton. The Implementation chapter outlines the project prioritization, project cost estimates, and funding recommendations as well as design guidelines and wayfinding recommendations.



1.4 Project Vision, Goals, and Objectives

Analysis of existing conditions and input from key community stakeholders and the residents of Pendleton were primary sources of input on the project's overarching goals and desired outcomes of the Plan. This input was incorporated into the following overriding vision statement for this Plan:

*The Town of Pendleton Bicycle and Pedestrian Master Plan **envision**s a connected network of on- and off-street bikeways, walkways, and trails that provide **safe and family-friendly access** between neighborhoods and community destinations **for all ages and abilities**. Implementing the recommendations described in **this Plan will compliment, connect and enhance the existing assets of the community** such as schools, Village Green Square, and parks, among others. **These recommendations could also better connect Pendleton with neighboring communities** such as Clemson and Central. **When realized, this Plan will enhance the economic vitality, cultural assets, and overall health and well-being of Pendleton and its residents.***

Specific objectives for the outcome of this Plan include:

- Create a community network of on- and off-street walkways, bikeways, and trails designed for all ages, abilities, and user groups.
 - Complete this plan's top five priority bicycle and pedestrian projects within five years of Plan adoption.
- Capitalize on existing scenic natural resources, including the Veterans Park, recreation and historical amenities, and the attractiveness of Village Green Square in Pendleton.
 - Focus on improving bicycle and pedestrian connectivity in and around the Town's core, eventually branching out to other neighborhoods.
 - Incorporate **non-motorized transportation friendly policies and regulations** ensuring that new development supports the bicycling and livability goals of the community.
- Improve the safety and comfort of bicycling and walking routes to destinations such as schools, parks, and the library.
 - **Reduce the number of bicycle and pedestrian injuries and fatalities by 20% in 3 years and by 40% in 5 years.**
 - **Eliminate all pedestrian, bicycle, and overall traffic crash fatalities within 10 years.**
- Promote bicycling, walking, and trail usage for both recreation and transportation.
 - **Initiate a local bicycle safety and courtesy educational campaign.**
 - **Start a walking and bicycle safety education/encouragement program in all elementary and middle schools for children in grades K-8.**
 - **Integrate bicycling and walking encouragement and education into existing community programs and events** such as farmers' markets, local festivals, and races.
 - **Plan and promote events around Bike Month.**
- Ensure that Plan recommendations are implemented equitably.



- In 10 years, all households in Pendleton will be within a half-mile of a bikeway and a quarter mile of a sidewalk or greenway.
- Establish a mayoral bicycle advisory committee with a diverse group of representatives to oversee implementation of recommendations.

1.5 The Five E's Approach

Research has shown that a comprehensive approach to improving conditions for walking and bicycling is more effective than a singular approach that would address infrastructure issues only.¹ Recognizing this, the national Bicycle Friendly Community program, administered by the League of American Bicyclists, and the Walk Friendly Community program, administered by the National Center for Walking and Bicycling, recommend a multi-faceted approach based on the following five 'E's: Engineering, Education, Encouragement, Enforcement, and Evaluation. For the purposes of this Plan, a sixth 'E', Equity, is included in order to fulfill the goals and vision of this Plan. This Plan has been developed using the "6 E's" approach as a guiding framework.

1.5.1 Engineering

Designing, engineering, operating, and maintaining quality pedestrian and bicycle facilities is a critical component in creating a pedestrian-friendly and bicycle-friendly community. This category includes projects that address and impact the built environment, such as adding new bicycle and pedestrian specific infrastructure, improvements to street crossings, traffic calming, trail design, traffic management, school zones, or other related strategies.

1.5.2 Education

Educational opportunities are critical for bicycle and pedestrian safety. Education should span all age groups and include motorists as well as cyclists and pedestrians. The focus of an educational campaign can range from information about the rights and responsibilities of road users to tips for safe behavior; from awareness of the communitywide benefits of bicycling and walking to technical trainings for municipality staff.

1.5.3 Encouragement

Encouragement programs are critical for promoting and increasing walking and bicycling. These programs should address all ages and user groups from school children, to working adults, to the elderly and also address recreation and transportation users. The goal of encouragement programs is to increase the amount of bicycling and walking that occurs in a community. Programs can range from work-place

¹ Pucher, J. Dill, J. and Handy, S. (2010). Infrastructure, programs, and policies to increase bicycling: An international review. Preventative Medicine, 50. S106-S125; Krizek, K., Forsyth, A., and Baum, L. (2009). Walking and cycling international literature review. Melbourne, Victoria: Department of Transport.



commuter incentives to a “walking school bus” at an elementary school; and from bicycle- and walk-friendly route maps to a bicycle co-op.

1.5.4 Enforcement

Enforcement is critical to ensure that motorists, bicyclists, and pedestrians are obeying common laws. It serves as a means to educate and protect all users. The goal of enforcement is for bicyclists, pedestrians, and motorists to recognize and respect each other’s rights on the roadway. In many cases, officers and citizens do not fully understand state and local laws for motorists, bicyclists, and pedestrians, making targeted education an important component of every enforcement effort.

1.5.5 Evaluation

Evaluation methods can include quarterly meetings, the development of an annual performance report, update of bicycle and pedestrian infrastructure databases, pedestrian and bicycle counts, assessment of new facilities, and plan updates. Monitoring implementation of this Plan on a regular basis and establishing policies that ensure long-term investment in the bikeway and walkway network are critical to effective evaluation. Monitoring progress of implementation will facilitate continued momentum and provide opportunities for updates and changes to process if necessary.

1.5.6 Equity

Equity in transportation planning refers to the distribution of impacts (benefits and costs) and whether that distribution is considered appropriate. Transportation planning decisions have significant and diverse equity impacts. Equity in bicycle and pedestrian planning decisions should reflect community needs and values. Communities may choose to give special attention to variances in age, income, ability, gender, or other characteristics.



2 Existing Conditions

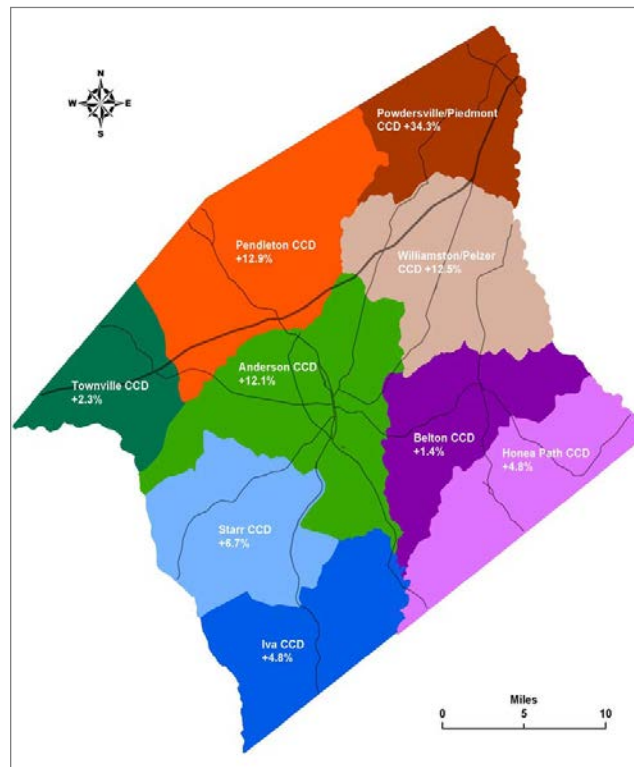
2.1 Pendleton Characteristics and Demographics

The Town of Pendleton, with a population of roughly 3,000, is situated in northwestern Anderson County in the Foothills of the Blue Ridge Mountains in Upstate South Carolina. Located only 10 minutes East of Clemson and just two hours from Atlanta and Charlotte, Pendleton is ideally positioned as a residential community for people that live, work and play in the Upstate, as well as a tourist destination for those attracted to Pendleton's rich history and character and the area's diverse recreation activities.

Pendleton was first documented on paper in the year 1790. A slow start in the first 10 years quickly lead into an age of growth, when the Town was officially surveyed and staked out as 51 one-acre lots, and 43 larger "outlots". By 1800, Pendleton had gained a reputation to South Carolina's elite as a summer home getaway with "salubrious climate and its rich and fertile soil". Pendleton's proximity to Clemson, and Clemson University, has allowed the Town to maintain a steady population of students and faculty.

The Town of Pendleton's population has remained fairly steady over last few decades, while the last five years have shown population growth of about 7%. The Pendleton Census County Division (CCD) grew by 12.9%, and Anderson County also grew by 12.9% during the same period.² Much of the growth in the Pendleton CCD has occurred in unincorporated areas surrounding Pendleton, Clemson & Central.

Almost none of Pendleton's residents walk or bike to work (an estimated 0.0%), and a number of demographic indicators point to the need for bicycling and walking infrastructure.³ For example, 2014 estimates reveal that more than **40% of** households in Pendleton have access to only one motor



² U.S. Census Bureau. Census 2000, Summary File 1, Table DP1, generated by Alta Planning + Design using American FactFinder, <http://factfinder2.census.gov>, (6 March 2015). U.S. Census Bureau. Census 2010, Summary File 1, Table DP1, generated by Alta Planning + Design using American FactFinder, <http://factfinder2.census.gov>, (6 March 2015). Anderson County, South Carolina. Anderson County Comprehensive Plan. 2012.

³ U.S. Census Bureau. generated by Alta Planning + Design using American Factfinder, <http://factfinder2.census.gov>; (October, 2016).



vehicle, and an additional 1.6% have do not have access to a motor vehicle at all.⁴ Other population segments like seniors (65 and older), which represent an estimated 19.5% of the population, drive less frequently and often choose to walk to nearby destinations. Children (age 14 and younger) account for 6.2% of the Pendleton population and rely heavily on walking and bicycling to travel to school, parks, friends' houses, and other local destinations.⁵

As Anderson County continues to grow and Upstate South Carolina continues to attract new residents, businesses and visitors, Pendleton has continued to position itself as an historic, attractive, and inviting community to *live, work, pray, learn and play*. This Plan represents another important step in enriching the character of Pendleton, improving the quality of life for residents, and enhancing the visitor experience for tourists and other guests.

2.2 Review of Existing Planning Efforts

Numerous planning efforts, studies, and other documents have been developed in recent years that may have an impact on bicycle and pedestrian facility development in the Town of Pendleton. In order to better understand the planning and policy context in which this plan is being developed, these plans and documents have been reviewed and summarized, with particular focus on bicycle and pedestrian elements.

Documents Reviewed

Document	Year	Description
Anderson County Comprehensive Plan	2012	Long-range plan to guide growth, development and investment in Anderson County over a 10 – 20 year period.
Anderson County Park & Recreation Master Plan	2009	Inventories county-owned and leased facilities and proposes improvements over a five-year period.
Annual Update of the Comprehensive Economic Development Strategy (CEDS) for the Appalachian Region of South Carolina	2014	Builds on the CEDS 2013-2017 <i>Plan of Action</i> and provides an update on the region's seven areas of emphasis for economic development and identifies opportunities and challenges to address for the coming years.

⁴ U.S. Census Bureau. generated by Alta Planning + Design using American Factfinder, <http://factfinder2.census.gov>; (October, 2016).

⁵ U.S. Census Bureau. generated by Alta Planning + Design using American Factfinder, <http://factfinder2.census.gov>; (October, 2016).



GPATS Long Range Transportation Plan	2007	Provides the regional framework for investment in transportation facilities based on technical data analysis and public input and involvement. An entire chapter is devoted to bicycle and pedestrian issues.
GPATS Long Range Transportation Plan Update	2013	Federally-mandated update to the 2007 Long Range Transportation Plan. The bicycle and pedestrian element of the 2007 plan was not changed as part of this update.

2.2.1 Anderson County Comprehensive Plan (2012)

The 2012 Anderson County Comprehensive Plan serves as a guiding policy document to direct growth and development over a 10 to 20-year period, with focus on nine distinct elements: population and demographics, land use, natural resources, cultural resources, transportation, economic development, affordable housing, community facilities, and priority investments. The Plan notes that there is “a significant need for biking trails and/or lanes, Safe Routes (walk to school initiative), ‘Share the Road’, ADA accessibility and sidewalks”; however, there are no recommendations or strategies in the Plan for improving conditions for walking and bicycling for either transportation or recreation purposes.

2.2.2 Anderson County Parks and Rec Master Plan (2009)

Completed in 2009, the county-wide park and recreation master plan provides a comprehensive assessment of the county’s 154 recreation facilities, as well as concept plans for most of the county-owned or leased facilities. More than \$11 million dollars in improvements are recommended for park improvements throughout Anderson County.

2.2.3 Annual Update of the Comprehensive Economic Development Strategy for the Appalachian Region of South Carolina (2014)

This annual update to the Comprehensive Economic Development Strategy 2013-2017 Plan of Action for the Appalachian Region of South Carolina identifies areas of focus for enhancing the region’s global competitiveness by building local capacity through infrastructure, industry targeting, workforce development, and other important initiatives. The document references multiple initiatives to help create a desirable and marketable brand that builds on local assets and amenities. While walking and bicycling are not specifically referenced in the document, there is some focus on main streets, recreation and tourism, all of which benefit from the creation of public spaces that welcome and encourage walking, bicycling, and hiking.

2.2.4 GPATS 2030 Long Range Transportation Plan (2007)

This regional transportation plan creates a blueprint for regional transportation investments that meet the changing needs of local communities and support a safe, efficient, and connected transportation network. Chapter six is devoted entirely to bicycle and pedestrian transportation and includes an



inventory of existing facilities within the region, as well as an overview of bicycle and pedestrian planning and design principles and elements.

2.2.5 GPATS 2035 Long Range Transportation Plan Update (2013)

This federally mandated long range planning document amends the 2030 Long Range Transportation Plan completed in 2007 by incorporating more recent data and information and by gaining new insight and direction through the public engagement process. Non-motorized transportation is an integral component of the plan. Through this planning process, area residents expressed their desire for more sidewalks, bike lanes, and an extended greenway and trail system.

2.3 Opportunities and Constraints Analysis

2.3.1 Town-wide Opportunities and Constraints

Pendleton has a great foundation for walking and bicycling with its approximately **13.7 miles of existing sidewalks**, **1.2 miles of bike lanes**, a walkable downtown and Village Green Square area, and relatively dense development and relatively well-connected street network. However, there are also several constraints that will have to be addressed as the town and its partners work to implement the recommendations in this Plan. The following list presents overarching opportunities and constraints for walking and bicycling in Pendleton:

Opportunities

- **There is a healthy active recreation culture in Pendleton** with many people walking for exercise on the existing sidewalk network, and utilizing roadways for cycling. The existing pathways at Veteran's Park gives an opportunity for walkers to escape a roadway experience while maintaining valuable wooded areas.
- **The Pendleton community is engaged in making their town a better place.** There are many community groups such as Pendleton Pride in Motion and the Friends of the Green Crescent that could be potential partners in program or infrastructure recommendations, and could lead to a series of interconnected pathways that would provide infrastructure throughout the region.
- **Safe Routes to School efforts** have led to multiple walk to school event days, and have shown residents and children that there are safe and healthy alternatives to vehicular transportation.
- **Main Street and Exchange Street already have a walkable character** with their street lighting, landscaping, high-visibility crosswalks, and buildings that are close to the street. Future development along the Village Green Square and throughout town should strive to mimic this walk-friendly design.
- The community already has a **good sidewalk network** around the downtown core.
- **Future planned improvements** such as the Mechanic Street Streetscape Project continues to enhance the beauty and walkability of Pendleton's Downtown.
- There are several active railways, stream and/or roadway corridors throughout the community that could potentially accommodate **future shared-use pathways**. These could also connect to the nearby communities of Central and Clemson.



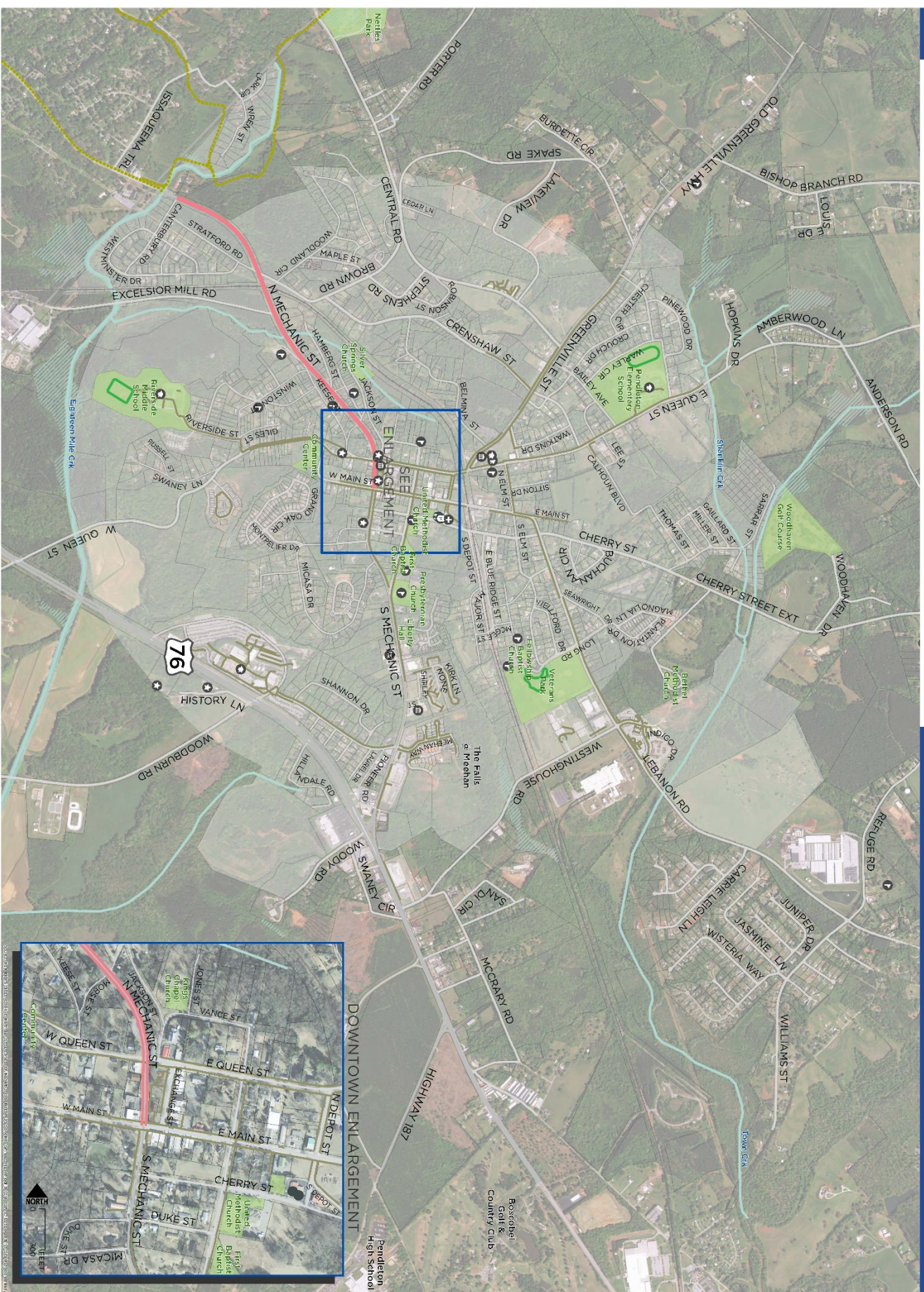
- Many major roadway corridors are wider than needed for the traffic volumes they serve. This presents an opportunity to reconfigure and “resize” roadways to add on-street bicycle facilities, or simple shoulder enhancements to allow for bike use.
- There may be the opportunity to tie in new bikeways or pedestrian ways with recreational and residential facilities such as Veteran’s Park, The Fall’s at Meehan, and The Grove.



Constraints

- **Some intersections in Pendleton**, especially those along Mechanic St. and around Veterans Park, **can be barriers to bicyclists and pedestrians**. These intersections could benefit from reduced turning radii, high-visibility crossing markings, shorter crossing distances for pedestrians, and improved signalization for pedestrians and bicyclists.
- Many key roadways in Pendleton are **SCDOT jurisdiction roads**. Changes to SCDOT roadways will require additional coordination with SCDOT.
- The **roadway network is somewhat disconnected** reducing opportunities for alternative parallel bikeway connections utilizing low-volume streets. This increases the importance of improving major roadways for bicycle and pedestrian transportation.
- While there are regular recreational cyclists in and through Pendleton, there are **few people currently bicycling for transportation** in Pendleton. It will take time to build a culture where bicycle transportation is normalized.
- **Some areas of existing sidewalks are poorly maintained**, or don't meet current safety and ADA accessibility standards.
- **Many key roadways lack sidewalks, or have significant sidewalk gaps**. This presents an unsafe environment for pedestrians, and can often create unsafe interactions with vehicular traffic.

The following map presents an overview of existing bicycle and pedestrian infrastructure within the Town of Pendleton. Note the expansive sidewalk system, the roughly 1 mile of bike lanes, and the existing pathways within Veteran's Park.



PENDLETON
SOUTH CAROLINA
History, Hospitality & Happenings!

BIKE | PED FACILITIES

EXISTING
PROPOSED

SHARED USE PATH

BIKE LANE

SHOULDER ADDITION

SIDEWALK

BIKE BOULEVARD

GREEN CRESCENT RECS.

OVERLAYS

RAILROAD

STREAMS

WATER BODY

WETLANDS

PUBLIC SPACE

TOWN LIMITS

COUNTY BOUNDARY

POINTS OF INTEREST

GOVERNMENT

LIBRARY

FIRE & RESCUE

EMS

CULTURAL SITE

SCHOOL

POLICE

CHURCH



0 0.25 0.5 MILES





Site Specific Opportunities and Constraints

The following photo inventory presents opportunities and constraints identified during field work. Observed opportunities are shown in **GREEN** and constraints in **RED**. A base map of existing conditions in Pendleton is provided following the opportunities and constraints photo inventory.



1. Village Green Square in downtown is already walk- and bike-friendly in many regards. This is an opportunity to build upon existing successes to attract even more people to the core of town.



2. Bicycle facilities, including bike racks, are already becoming common sights within the square. This creates a welcoming environment for cyclists when reaching downtown.



3. While sidewalk coverage is fairly good near the town center, sidewalks are less prevalent or in disrepair as one moves away from the square, especially in some neighborhoods where there is a high prevalence of walking.



4. Existing bike lanes along Mechanic Street end at the 18 Mile Creek bridge leading into Clemson. The existing bridge is too narrow to accommodate extensions of these bike lanes.



5. The existing rail bridge crossing over Mechanic Street will make implementation of a shared use path difficult. The road width and existing bridge supports prevent the existing ROW width to be used for such a path.



6. With the addition of The Falls at Meehan, pedestrian connectivity should be a priority along Westinghouse Road. This existing at-grade rail crossing will need to be upgraded to include a safe pedestrian crossing.



7. There is a strong community of recreational runners, walkers, and bicyclists in Pendleton. This population could be an asset when developing volunteer walk and bike encouragement and education programs.



8. There are potential opportunities to develop an off-road, shared-use pathway system along the existing sewer line easements that meander through the wooded areas around town.



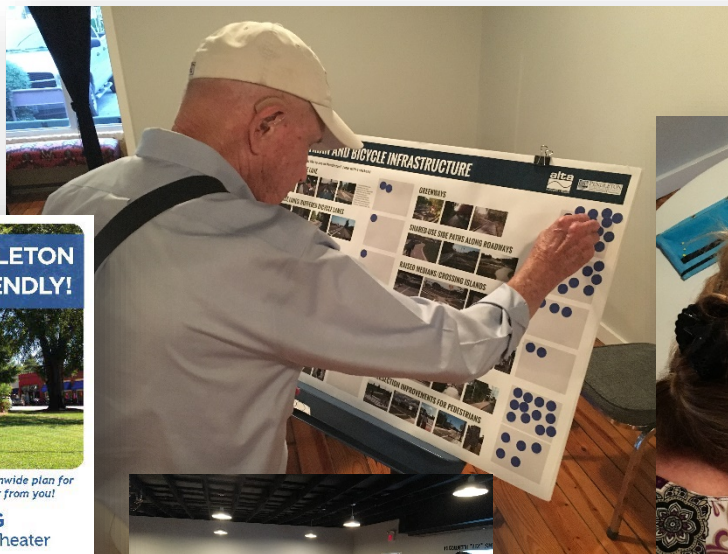
9. There are opportunities to enhance the entrances and safety along the roadways entering Pendleton's schools. This view heading into the middle school shows a road width that will allow for the addition of bike lanes and redesign of the sidewalk systems.



10. The intersection of Hwy 76 and Mechanic St. presents an obstacle that must be improved. This area is developing with new commercial properties. The proximity to Pendleton High School alone warrants the addition of a pedestrian signalized crossings and sidewalks.

2.4 Public Input Summary

The project team hosted an open house at the Clemson Little Theater on September 22nd, 2016 inviting residents and visitors to express their walking and bicycling infrastructure preferences through interactive posters, and to envision the walking and bicycling future of the Town of Pendleton. The open house introduced citizens to the Walk and Bike-Friendly Community Master Plan and encouraging attendees to share their ideas.

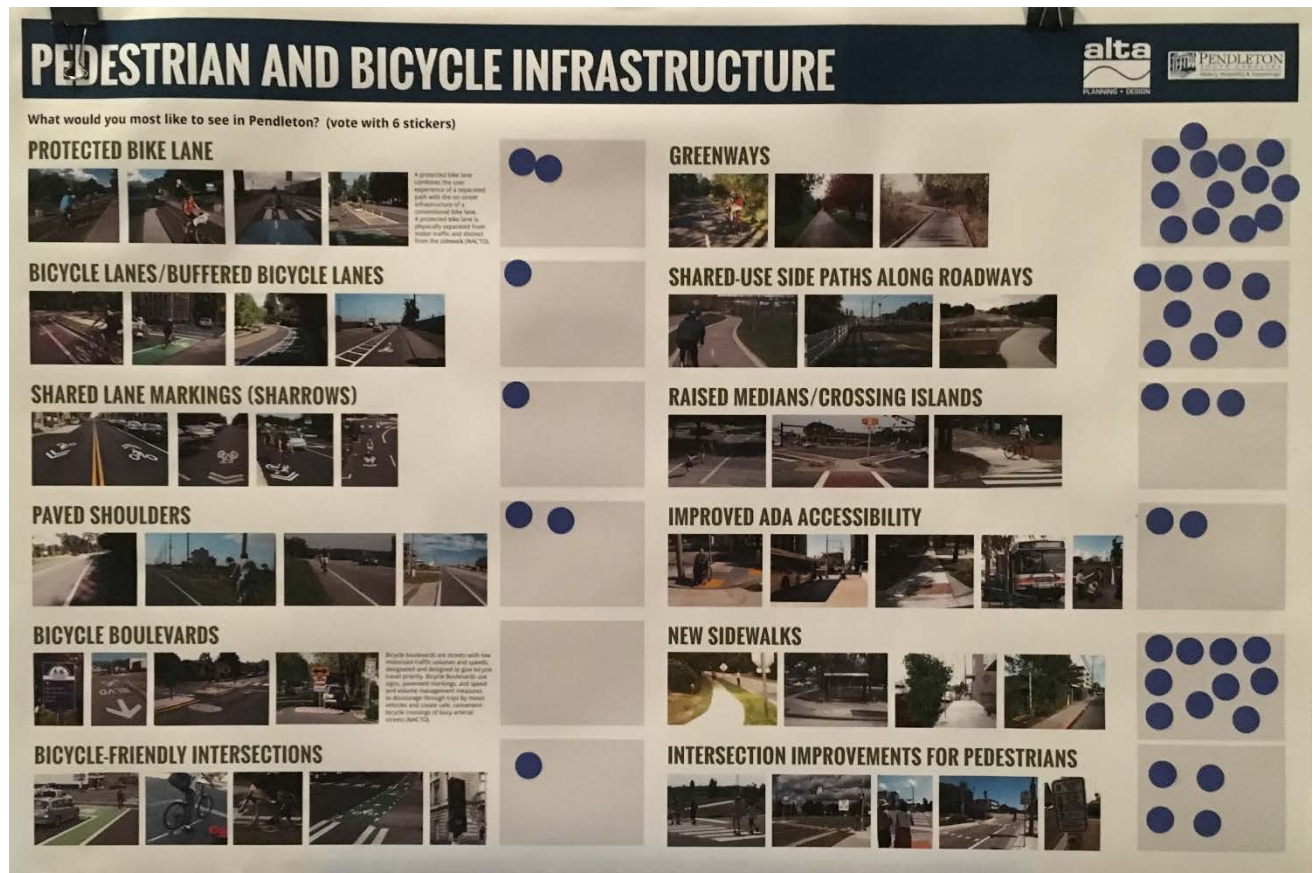




2.4.1 Walking and Bicycling Infrastructure Preferences

Meeting participants were asked to select their top four preferences for pedestrian infrastructure and bicycle facilities they would most like to see in Pendleton. Development of **shared-use paths or greenways** ranked highest for both pedestrian and bicycling infrastructure. Open house attendees favored new sidewalks and improved ADA accessibility for improving Pendleton’s walking environment. Attendees also favored bicycle-friendly intersections and shared-use paths along roadways for improving Pendleton’s bicycling environment. The two images below show the public’s preference for types of walking and cycling infrastructure as well as program and policies for the Town of Pendleton to pursue.

2.4.2 Preferred Bicycle and Pedestrian Infrastructure



The above photo shows the public input board that asked participants to vote on their ideal bicycle / pedestrian facility improvements to help shape the direction of this study, and capture the true needs and wants of Pendleton’s residents. Each person was given 6 stickers to vote. The 3 most popular facility types were: 1) Greenways 2) Sidewalks 3) Side Paths



2.4.3 Preferred Program and Policy Concepts

THE "6 E'S" & PROGRAM AND POLICY CONCEPTS

alta *PENDLETON*
PLANNING + DESIGN

VOTE FOR TOP 3!

The National 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, Evaluation, Encouragement, Enforcement, and Equity. A sixth 'E', Equity, is often included in order to ensure equal consideration for those whom pedestrian and bicycling improvements may benefit the most.

<p>Engineering</p> <p>Education</p> <p>Evaluation</p> <p>Encouragement</p> <p>Enforcement</p> <p>Equity</p>	<p>Access to Healthy Foods</p> <p>Biking and walking programs connecting residents to outlets for healthy foods, walking tours for community gardens, or farmers markets.</p> <p><i>Vote Here!</i></p>	<p>Motorist Education & Enforcement</p> <p>Helping drivers understand and obey state and local laws for bicycle and pedestrian interaction on and near our roadways.</p> <p><i>Vote Here!</i></p>
<p>Pedestrian & Bicyclist Education</p> <p>Helping educate cyclists and pedestrians understand the "rules of the road" for safe walking and biking in our community.</p> <p><i>Vote Here!</i></p>	<p>Awareness & Promotion</p> <p>Creating attractive marketing identities and signage as well as celebrating successes for new trails, greenways, and sidewalks.</p> <p><i>Vote Here!</i></p>	<p>Public Safety</p> <p>Increasing public safety through trust-building activities, information sharing, and active community policing.</p> <p><i>Vote Here!</i></p>
<p>Group Walks & Rides</p> <p>Conducting events, whether formal or informal, to encourage friends and neighbors to engage in walking and biking in our community.</p> <p><i>Vote Here!</i></p>	<p>Funding & Policies</p> <p>Providing the financial and organizational resources for maintaining and expanding bike and pedestrian infrastructure.</p> <p><i>Vote Here!</i></p>	<p>Other Issues & Opportunities</p> <p>Please list YOUR ideas below!</p>
<p>Active & Vibrant Public Spaces</p> <p>Hosting regularly-scheduled and special events to clean up, celebrate, decorate, and liven public spaces in our community.</p> <p><i>Vote Here!</i></p>	<p>Youth Activities & Family</p> <p>Programming and activities for children and families to provide healthy engagement with parks, trails, and other public spaces.</p> <p><i>Vote Here!</i></p>	

The above photo shows another public input board that gave the attendees an opportunity to vote on programming + policy recommendations that should be pursued in Pendleton. Each person was given 3 votes. The most popular items were: 1) Active + Vibrant Spaces 2) Public Safety 3) Funding + Policies

2.4.4 Recommendation Maps Feedback

Apart from voting on infrastructure + programming preferences, the open house also allowed attendees an opportunity to provide feedback on maps displaying pedestrian infrastructure and bicycle facility recommendations. The existing infrastructure conditions for walking and cycling environment were displayed and opened for public input. In total, only three suggestions were made on the maps. They were:

- Create bike and pedestrian loops within city
- Provide safe access to schools
- Work in coordination with the developments of The Falls at Meehan and The Grove
- Fill sidewalk gaps
- Connect to the Green Crescent project
- Improve / Provide cross walks at large or dangerous intersections



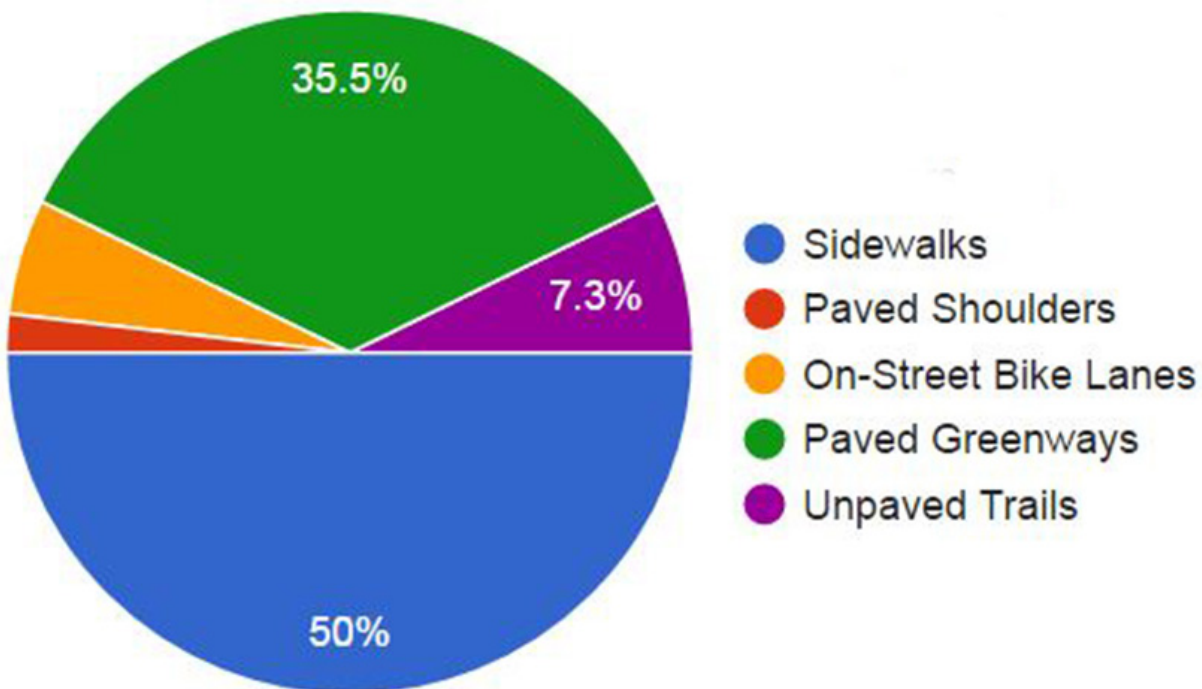
2.4.5 Public Survey

Public input is one of the most important aspects of putting together a comprehensive study of this nature. It is vital to ensure that the needs and wants of the residents that live here and use the facilities. To ensure that we can get a more accurate picture of people's opinions, the consultant team distributed written and online surveys. These surveys were open for input for approximately two full months, and received approximately 110 responses. The following charts represent the results of these surveys.

The image to the right is the paper version of the public input survey. These surveys were distributed at the public meeting and town hall, and helps supplement responses from those without access to a computer.

The image shows a printed survey form titled "TOWN OF PENDLETON BIKE & PEDESTRIAN SURVEY". It includes instructions and a list of 9 questions with multiple-choice options. The questions cover topics like location, gender, age, preferred walking/biking facilities, frequency of use, and reasons for not using facilities. The form also features the Town of Pendleton logo and the Alta Group logo.

One of the survey questions asked respondents for their most preferred type bike/pedestrian infrastructure improvements. One half of respondents indicated sidewalks as their primary preference. Paved greenways, at 35.5%, was the second most popular choice, with unpaved trails in third place at 7.3%.





Survey respondents were also provided an opportunity for comments. Two common themes from these comments are the **need to increase the safety of bike/pedestrian infrastructure and for additional bike/pedestrian connections throughout town.**

I would love a trail connecting pendleton to clemson

We need a Pendleton/North Anderson rec center please

Local area connections via walking trails

Sidewalks need to be improved, especially for those with strollers. Also, dirt trails such as Clemson experimental forest would be great, as we walk their multiple times a week.

I often walk from my home to the square for events. The sidewalks along Mechanic Street are horrible for walkers because they are uneven and unsafe.

More monitoring for speeding through the town of Pendleton (near Tri-County Tech) would be great – especially in the mornings and early evenings.

Stop wasting my tax money on stupid ideas, like bike trails.

The sidewalks are horrible! It's especially difficult for anyone with a baby stroller and individuals who use wheelchairs. It's totally against ADA.

Connectivity to other systems and points of interest is a major reason to use trails

Pendleton area bicyclers are subject to distracted drivers who text and/or talk. These car/suv/pickup drivers are, for the most part, oblivious to anything but other larger vehicles. You take your life in your hands if you ride a bicycle in or around Pendleton. Ditto Clemson. The only way bicyclers will ever ride safely in this region is if law enforcement clamps down on negligent car/truck drivers for their negligence. I avoid this area like the plague when riding my bike and for safety reason I only go to the state or federal or county parks to ride.

I enjoy walking for exercise in our neighborhood (no sidewalks), but I don't like it when cars go speeding by obviously over the speed limit. I'm hoping our new police force will start cracking down on these drivers. Thanks.

Sidewalks are in need of repair



3 Policy Recommendations

The project team conducted a plan and policy review as part of the existing conditions analysis. In order to advance the recommendations in this plan, the Town could benefit from adopting ordinances that are more appropriate for the local land use context and that support more bicycle and walk-friendly development.

This plan presents a table of potential policy examples to be considered for adoption in Pendleton. The development resulting from such policies will help to support Pendleton's walk and bike-friendly community aspirations, as well as potentially implement some of the infrastructure recommendations as part of new development.

The following bullets present the “top five” policy and regulatory recommendations for the Town of Pendleton and its partners to pursue. The full list of policy recommendations, full descriptions, and resources can be found in Chapters 4-6.

- Require recommended and appropriate pedestrian facilities (sidewalks, crosswalks, and greenways etc.) during new development or redevelopment.
- Increase limitations on curb cuts.
- Develop a sidewalk maintenance policy and procedure.
- Adopt a Complete Streets policy.
- Develop a sidewalk retrofit and infill program and policy.



4 Program Recommendations

Bicycle and walking education, encouragement, and enforcement programs are a key part of building support for infrastructure recommendations. These programs educate residents on how to use bicycle and pedestrian facilities, communicate why they are important to the success of the community, and ensure that all users of the transportation network are safe and feel comfortable whether they're walking, biking, or driving.

While there are almost a countless number of programs that could be implemented to support walking and bicycling, a few are very well-established and have proven successful in communities throughout the Upstate, South Carolina, and the country. A number of resources and funding sources exist for nationally-recognized programs such as Safe Routes to School, Bike to School Day/Week, National Bike Month, and the Bicycle and Walk-Friendly Community Programs. Based on community input and existing issues and opportunities, this plan recommends that Pendleton and its partners establish or expand the following programs in the community:

4.1 Safe Routes to School

Safe Routes to School programs use a “5 Es” approach (Engineering, Education, Encouragement, Enforcement, and Evaluation) to improve safety and encourage children to walk and bicycle to school. The programs are usually run by a partnership of municipal government, school and school district officials and teachers, parents and students, and neighbors. **In the Town of Pendleton, Anderson 4 School District has partnered with Safe Routes SC to create Safe Routes to School programs for Pendleton Elementary School and Riverside Middle School.**

For example, in a **Park and Walk campaign**, children are dropped off at a pre-determined location (such as a park) near the school, and then walk with parent volunteers and/or school staff the remaining distance to school. The Parks & Recreation Department of Columbia, SC currently promotes its parks as Park and Walk locations for the first day of school and the City grants employees two-hours off of work on the first day of school to encourage parent participation. Park and Walk campaigns can reduce congestion and improve traffic safety near schools while increasing youth physical activity. Teachers also report that children who walk to school arrive awake and “ready to learn.” Likewise, a **Safe Routes to Bus Stops** program can help children safely access bus transportation by walking.

International Walk to School Day in October can be an excellent annual event that offers all families and children the opportunity to participate in healthy school transportation. For example, Spartanburg County, SC has one of the highest Walk to School Day participation rates in the state and offers a local “Golden Shoe Award” for schools that create a model Walk to School Day event that promotes year-round physical activity. The campaign is led by an ongoing partnership between a public health nonprofit, school districts, PTAs, and other agencies.

Youth bicycle and pedestrian safety education can be taught in schools or as after-school programs. One South Carolina resource is the Palmetto Cycling Coalition, which can provide recommendations for League-Certified Instructors (LCIs), who can offer the League of American Bicyclists Kids I and Kids II training courses.



Anderson 4 School District has worked with Pendleton Elementary School and Riverside Middle School by creating **Safe Routes to School** Plans for both schools. The South Carolina Safe Routes to School Resource Center offers support services such as trainings, consulting, and print-ready materials for interested schools.

The South Carolina Safe Routes to School website is the best resource for more information about this program in South Carolina: <http://www.scsaferoutes.org/>

4.2 National Bike Month

National Bike Month is a program established by the League of American Bicyclists and recognized in towns and cities across the US. It takes place yearly in May and includes Bike to Work Week, which encourages employees to commute, or partially commute, to work by bike, as well as Bike to School Day.

There are numerous resources on program ideas, promotional materials, and sponsorship ideas on the league of American Bicyclists website: <http://bikeleague.org/bikemonth>

4.3 Bicycle and Walk Friendly Community Programs

The League of American Bicyclists started the Bicycle Friendly Community (BFC) program to encourage American cities to incorporate the “Five Es” of bicycle planning within their jurisdictions: engineering, education, encouragement, evaluation, and enforcement. The process of completing the application can be a useful benchmarking tool, while obtaining the designation separates a town from rivals, earns media attention, and can be used in town branding materials to attract visitors and residents.

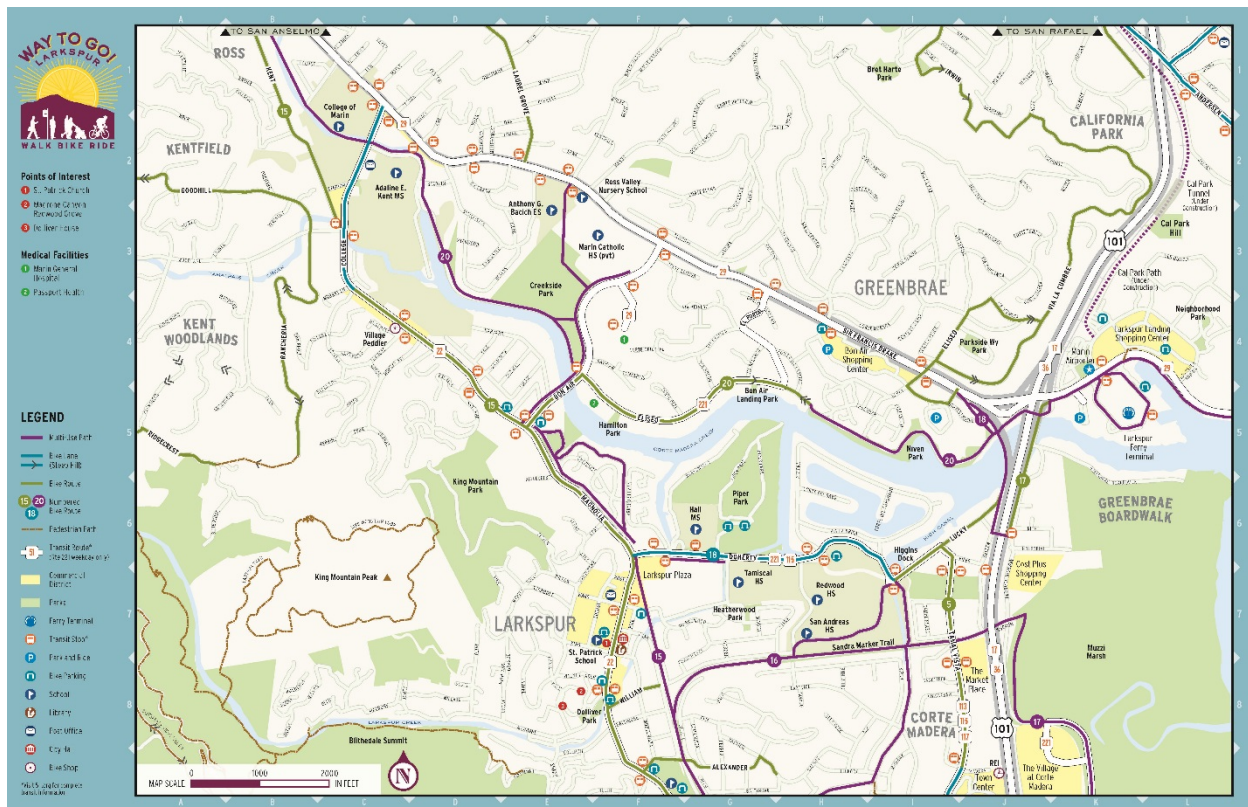
The Walk Friendly Communities (WFC) program is a separate program sponsored by FedEx and the FHWA. Similar to the BFC program, WFC-designated communities make efforts to increase the ease and enjoyment of moving through a city or town on foot. Each program rates communities from Bronze through Diamond levels. Moving through the levels helps gradually increase the town’s bicycle and pedestrian friendliness.

Information on the Bicycle Friendly Community Program can be found here:
<http://bikeleague.org/community>

Information on the Walk Friendly Community Program can be found here:
<http://www.walkfriendly.org/>

4.4 Community Bicycling and Walking Map

Community biking and walking maps introduce residents to comfortable bikeways and walkways that they may not otherwise know about. Partnering with local groups to distribute print versions of the maps is usually effective, as is posting the map online. It can also be helpful to have such maps permanently displayed in popular walking and bicycling destinations such as Mineral Springs Park and downtown. Maps can spotlight local businesses such as restaurants and convenience stores. They can also identify civic buildings, public art, community gardens, recreation areas, and other features the community holds dear.



The local bicycling and walking map above educates citizens how to reach community points of interest by foot or bike. Map sponsored by Walk/Bike Marin (<http://www.walkbikemarin.org/>)

4.5 Active Older Adults Walking Program

Group walks for older adults should leave and arrive at the same location such as near senior living centers. The walks should occur routinely so senior citizens can build relationships with other participants and organizers. The walks could also include trips to free events or could incorporate stopping for coffee or snacks at the square.

4.6 Bicycle and Pedestrian Advisory Committee

Bicycle and pedestrian advocacy committees are made up of advocates and local bike/walking enthusiasts as well as municipal staff from a variety of departments. The committees meet on a set schedule and discuss upcoming infrastructure and non-infrastructure initiatives. The groups can function as a sounding board, an advisory group, and as a way to bridge connections between the Town and residents. Such a committee can also help spread the word about upcoming and current projects and organize events. Since advisory committees are made up of knowledgeable locals who frequently bike and walk, they are able to alert town staff to local issues or concerns and provide input on local projects.



5 Network Recommendations

The final chapters of this Plan present bicycle and pedestrian non-infrastructure and infrastructure recommendations for the town of Pendleton. Recommendations are representative of the project vision, goals and objectives, community needs discovered in the existing conditions analysis, and public and stakeholder input. These recommendations present a long-term vision for the community that, when implemented, will achieve the goals presented in Chapter 1.

Both the project team and community realizes that the complete list of recommendations presented here will not be achieved overnight. **It will take several years and require new partnerships, creative fundraising strategies, and political will.** However, the community will begin to see the benefits of these improvements as soon as top priority projects are implemented, building support and paving the way for subsequent improvements.

Chapter 5 presents a comprehensive long-term vision for a Pendleton pedestrian and bicycle network. These recommendations are intended to reflect the needs pedestrians and bicyclists of all ages and abilities, whether it is a child walking to school, a wheelchair-bound individual fulfilling their daily needs, an employee bicycling to their job, a family out for a leisurely bike ride or a recreational cyclist taking long-distance ride across the county.

The Implementation Plan in Chapter 6 provides a road map for executing the plan infrastructure recommendations, with those projects with the highest impact and return on investment being carried out first.

5.1 Bicycle and Pedestrian Facility Types

5.1.1 Bicycle and Pedestrian Design Resources

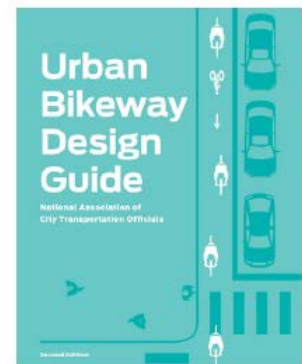
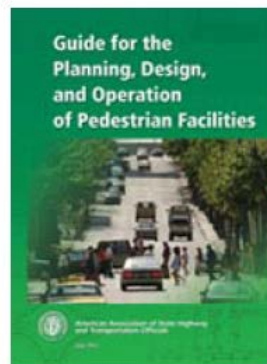
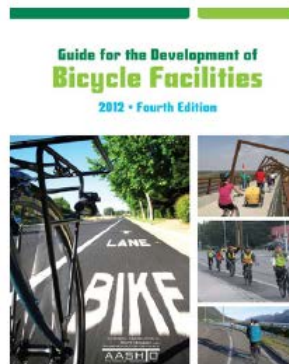
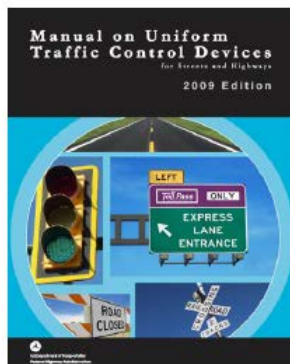
There are a number of state and national design resources that provide more detailed information on the design of the facilities recommended in this Plan. An overview of these is presented below:

- ***Manual on 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 clarify guidance on bicycle facilities, FHWA has set up the following website as a resource: http://www.fhwa.dot.gov/environment/bikeped/mutcd_bike.htm
- **American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities***, updated in June 2012 provides guidance on dimensions, use, and layout of specific bicycle facilities. The standards and guidelines presented by AASHTO provide basic information, such as minimum sidewalk widths, bicycle lane dimensions, detailed striping requirements and recommended signage and pavement markings.
- **The National Association of City Transportation Officials' (NACTO) 2012 *Urban Bikeway Design Guide*** is the newest publication of nationally recognized bicycle-specific design

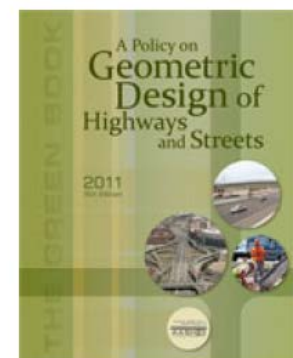
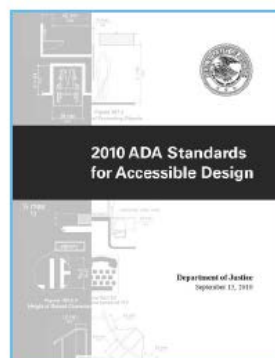


guidelines, and offers guidance on the current state of the practice designs. The NACTO Urban Bikeway Design Guide is based on current practices in the best cycling cities in the world. The intent of the guide is to offer substantive guidance for cities seeking to improve bicycle transportation in places 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 in many cities around the US and internationally.

- The 2004 AASHTO *Guide for the Planning, Design and Operation of Pedestrian Facilities* provides comprehensive guidance on planning and designing for people on foot.



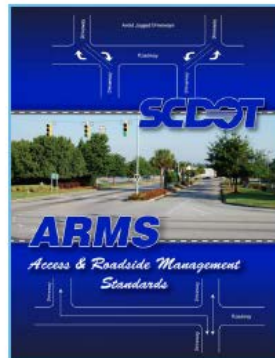
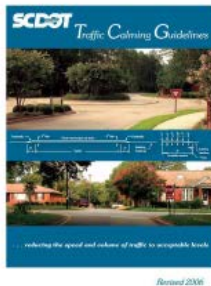
- The United States Access Board's proposed *Public Rights-of-Way Accessibility Guidelines* (PROWAG) and the 2010 ADA Standards for Accessible Design (2010 Standards) contain standards and guidance for the construction of accessible facilities. This includes requirements for sidewalk curb ramps, slope requirements, and pedestrian railings along stairs. Meeting the requirements of the Americans with Disabilities Act (ADA) is an important part of any bicycle and pedestrian facility project.
- The 2011 *AASHTO: A Policy on Geometric Design of Highways and Streets* commonly referred to as the "Green Book," contains the current design research and practices for highway and street geometric design.



- The South Carolina Department of Transportation has published a variety of additional resources for designing bicycle and pedestrian facilities. These include the SCDOT Highway Design Manual, SCDOT Traffic Calming Design Guidelines, SCDOT Traffic Signal Design



Guidelines and SCDOT Access and Roadside Management Standards. In recent years, SCDOT has also issued several Traffic Engineering Guidelines and Engineering Directive Memorandums for such treatments as pedestrian hybrid beacons, shared lane markings, rumble strips and other complete streets treatments.



5.1.2 Design for Pedestrians

The transportation network should accommodate pedestrians with 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 assistive devices for walking stability, sight, and hearing.

The *Manual of Uniform Traffic Control Devices* (MUTCD) recommends a normal walking speed of three and a half feet per second when calculating the pedestrian clearance interval at traffic signals. Typical walking speeds can drop to three feet per second in 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.

Sidewalks

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 should be provided on both sides of major roadways and on at least one side of collectors and minor arterials or residential streets with at least 3 dwelling units per acre.** Sidewalks are typically constructed of concrete and are separated from the roadway by a curb and gutter and preferably 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. Roadway crossing distances and distances between crossings should be minimized to accommodate and encourage pedestrian travel.

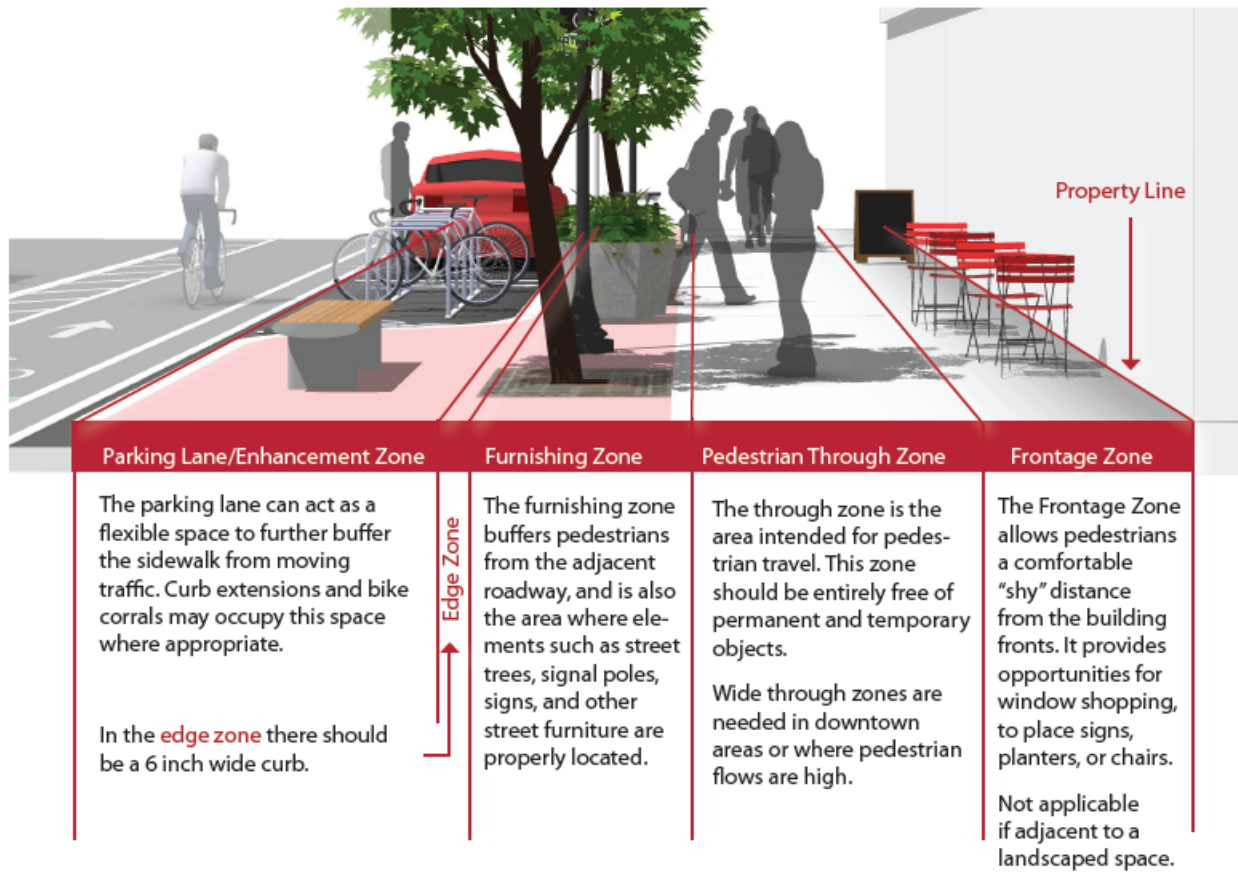


- **Adequate width:** Two people should be able to walk side-by-side. Different walking speeds should be possible. In areas of intense pedestrian use, sidewalks should accommodate the high volume of walkers.
- **Safety:** Design features of the sidewalk should allow pedestrians to have a sense of security 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.
- **Lighting:** Good lighting is an important aspect of visibility, safety, and accessibility.
- **Landscaping:** Plantings and street trees contribute to the overall psychological and comfort of sidewalk users, and should be designed in a manner that contribute to the safety of people and provide shade.
- **Drainage:** Sidewalks and curb ramps should be designed so that standing water is minimized.
- **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.
- **Maintenance:** Sidewalks should be kept free of debris and should be repaired as needed or as part of a sidewalk repair and replacement schedule.

Sidewalk Zones

The sidewalk area can be broken down into four distinct zones as seen in the figure below. The concept of sidewalk zones should be strictly followed for a sidewalk to function properly and provide safe passage for all users. This is especially important for users with visual or physical impairments to be able to effectively navigate the corridor.

Other considerations such as sidewalk obstructions, driveways, width and access through construction areas are important to consider as well. The following figure includes important considerations for sidewalk design.



Street Classification	Parking Lane/Enhancement Zone	Furnishing/Green Zone	Pedestrian Through Zone	Frontage Zone	Total Sidewalk Area
Local Streets	7 feet	4-8 feet	5-6 feet	N/A	9-12 feet
Commercial Areas	8-10 feet	6-8 feet	6-12 feet	2-8 feet	14-28 feet
Arterials and Collectors	8-10 feet	6-8 feet	4-12 feet	2-4 feet	12-24 feet
Notes			Six feet enables two pedestrians (including wheelchair users) to walk side-by-side, or to pass each other comfortably		Total sidewalk area excludes parking area



Intersections

Intersections are also an important piece of the pedestrian realm. 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:** Good 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, more remote intersections may have limited or no signing. However, legibility regarding appropriate pedestrian movements should still be taken into account during design.

5.1.3 Design for Bicyclists

Bicyclists, by nature, are much more affected by poor facility design, construction and maintenance practices than motor vehicle drivers. Bicyclists lack the protection from the elements and roadway hazards provided by an automobile's structure and safety features. By understanding the unique characteristics and needs of bicyclists, a facility designer can provide quality facilities and minimize user risk.

Similar to motor vehicles, bicyclists and their bicycles exist in a variety of sizes and configurations. These variations occur in the types of vehicle (such as a conventional bicycle, a recumbent bicycle or a tricycle), and behavioral characteristics (such as the comfort level of the bicyclist). The design of a bikeway should consider reasonably expected bicycle types on the facility and utilize the appropriate dimensions.

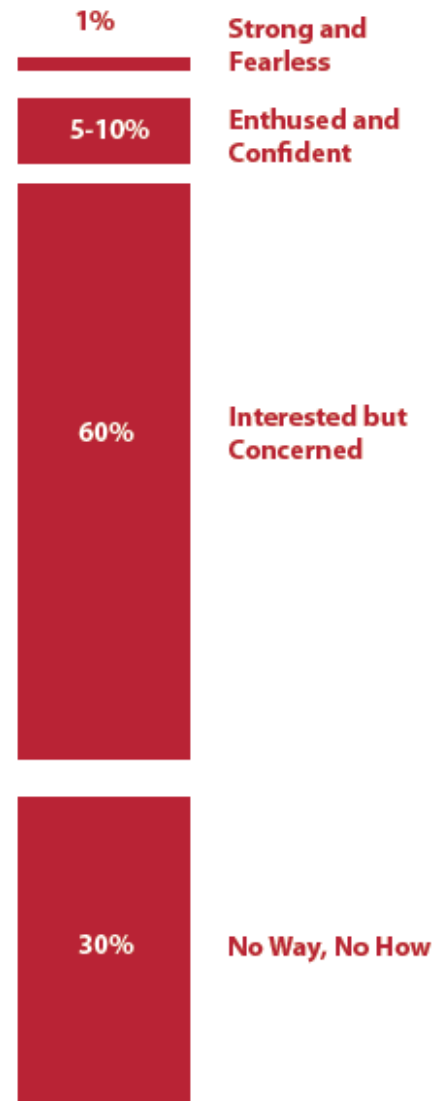
It is important to consider bicyclists of all skill levels when creating an active transportation or complete street plan or project. Bicyclist skill level greatly influences expected speeds and behavior, both in separated bikeways and on shared roadways. Bicycle infrastructure should accommodate as many user types as possible, with decisions for separate or parallel facilities based on providing a comfortable experience for the greatest number of people.

The planning and engineering professions currently use several systems to classify the cycling population, which can assist in understanding the characteristics and infrastructure preferences of



different bicyclists. The most conventional framework classifies the “design cyclist” as Advanced, Basic, or Child. A more detailed understanding of the US population as a whole is illustrated in the following figure. Developed by planners in Portland, OR and supported by data collected nationally since 2005, this classification provides the following alternative categories to address varying attitudes towards bicycling in the US:

- **Strong and Fearless (approximately 1% of population)** – Characterized by bicyclists that will typically ride anywhere regardless of roadway conditions or weather. These bicyclists can ride faster than other user types, prefer direct routes and will typically choose roadway connections - even if shared with vehicles - over separate bicycle facilities such as shared use paths.
- **Enthusied and Confident (5-10% of population)** - This user group encompasses bicyclists who are fairly comfortable riding on all types of bikeways but usually choose low traffic streets or shared use paths when available. These bicyclists may deviate from a more direct route in favor of a preferred facility type. This group includes all kinds of bicyclists such as commuters, recreationalists, racers and utilitarian bicyclists.
- **Interested but Concerned (approximately 60% of population)** – This user type comprises the bulk of the cycling population and represents bicyclists who typically only ride a bicycle on low traffic streets or multi-use trails under favorable weather conditions. These bicyclists perceive significant barriers to their increased use of cycling, specifically traffic and other safety issues. These people may become “Enthusied & Confident” with encouragement, education and experience and higher level facilities, such as buffered and protected bike lanes.



Typical Distribution of Bicyclist Types

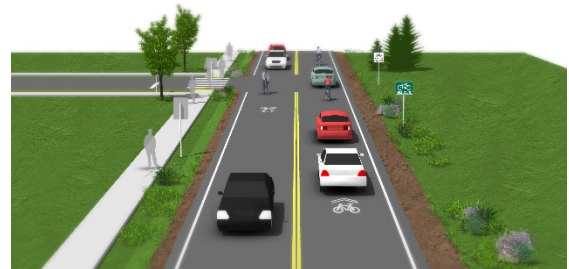
- **No Way, No How (approximately 30% of population)** – Persons in this category are not bicyclists, and perceive severe safety issues with riding in traffic. Some people in this group may eventually become regular cyclists with time and education. A significant portion of these people will not ride a bicycle under any circumstances.



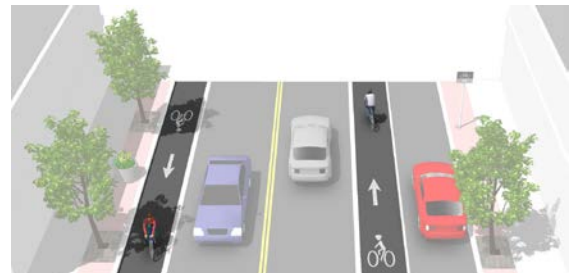
Bicycle Facility Types

Consistent with bicycle facility classifications throughout the nation, the facility types presented in the figures below identify classes of facilities by degree of separation from motor vehicle traffic. In general, the wider the roadway, the higher the traffic volume, and the greater the traffic speed, the more separation is necessary to provide safe and comfortable riding conditions for bicyclists. This Plan recommends the following facility types for implementation in Pendleton:

- **Bicycle Boulevards** are enhanced bike routes on local street networks. They are minimally designated by pavement markings and bicycle wayfinding signage. Traffic calming devices to reduce vehicle speeds and volumes while maintaining bicycle access such as traffic diverters, chicanes and chokers may also be used in conjunction with bicycle boulevards.



- **Bike Lanes** use striping and optionally signage to delineate the right-of-way assigned to bicyclists and motorists. Bike lanes encourage predictable movements by both bicyclists and motorists.



- **Paved Shoulders** Typically found in more rural areas, shoulder bikeways are paved roadways with striped shoulders (4'+) wide enough for bicycle travel. Shoulder bikeways often, but not always, include signage alerting motorists to expect bicycle travel along the roadway. In rural areas shoulders also provide an area for pedestrian travel where traffic volumes or development may not warrant sidewalks or sidepaths.





- **Buffered bike lanes** are conventional bicycle lanes paired with a designated buffer space, separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. Buffered bike lanes are designed to increase the space between the bike lane and the travel lane and/or parked cars.



- **Cycle Tracks** are exclusive bike facilities that combine the user experience of a separated path with the on-street infrastructure of conventional bike lanes. These are also referred to as protected bicycle lanes. Cycle tracks are either raised or at street level and use a variety of elements for physical protection from passing traffic.



- **Shared Use Paths** are facilities separated from roadways for use by bicyclists and pedestrians. Side paths usually refer to shared use paths immediately adjacent to the roadway. Greenways refer to shared-use paths that don't necessarily follow a roadway alignment. Greenways typically follow other features such as railroads, utility lines, or streams.





Bicycle Parking

Bicyclists expect a safe, convenient place to secure their bicycle when they reach their destination. This may be short-term parking of two hours or less, or long-term parking for employees, students, residents, and commuters. In order to encourage bicycling in Pendleton, plentiful, convenient and attractive bicycle parking must be provided. While specific bicycle parking locations are not identified in this planning effort, ample bicycle parking should be provided at popular bicycling destinations such as parks, schools, retail areas and other gathering places. The town could better insure this by including bicycle parking as part of their requirements for new development. Best practice guidelines for bicycle parking policy and the design and planning of bicycle parking can be found in the ABPB Bike Parking Guidelines:

<http://www.apbp.org/?page=publications>



Intersections

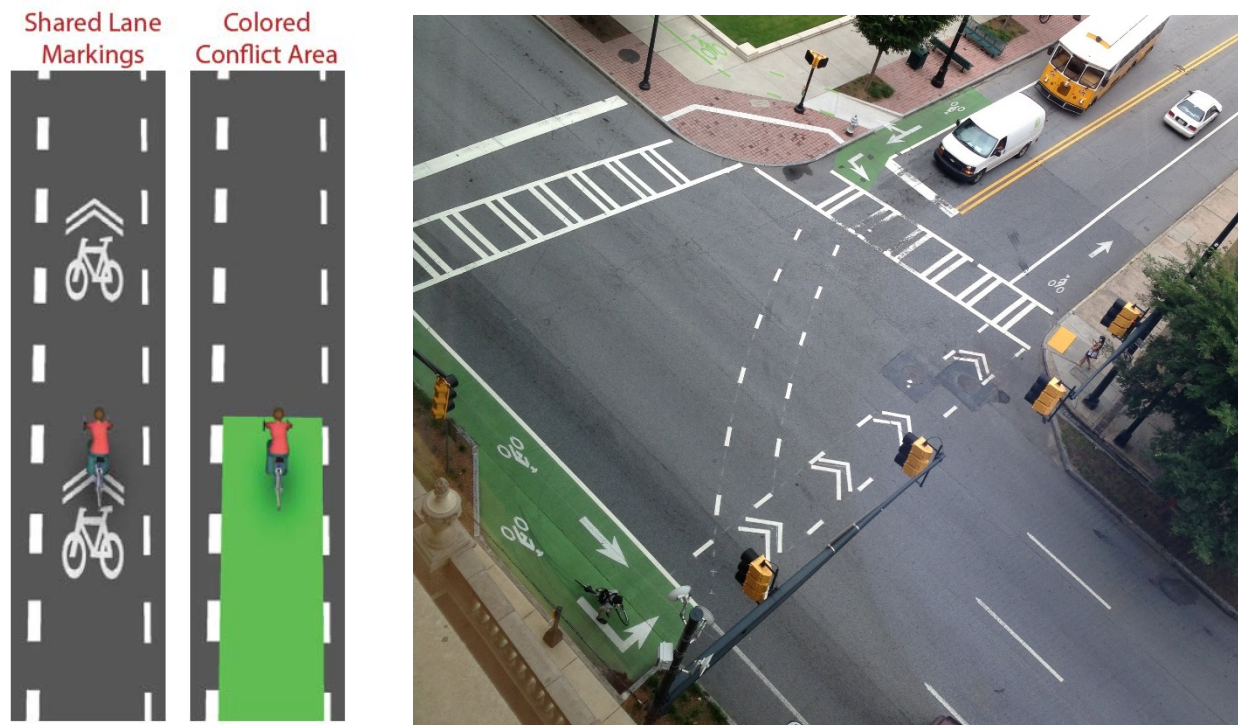
Intersections are also an important piece of the bicycle realm and they can either be facilitators of or barriers to bicycle transportation. If a potential bicyclist knows that they have to cross an uncomfortable intersection to get to their destination, they will be less apt to choose to bicycle there even if there are safe and comfortable on-street bicycle facilities along the route. The following considerations should be made when addressing the specific intersections recommended for improvement:

- **Visibility:** It is critical that bicyclists have a good view of vehicle travel lanes and that motorists in the travel lanes can easily see bicyclists. Roadways should be designed to intersect at a 90-degree angle as much as possible to improve visibility.
- **Legibility:** Symbols, markings, and signs used at corners should clearly indicate what actions the bicyclist should take through the intersection. Pavement markings should also heighten driver's awareness of potential conflicts with bicyclists or pedestrians.
- **Speed:** Intersections where regular bicycle or pedestrian traffic is expected should be designed to minimize the speed of vehicles driving or turning through the intersection. This can be accomplished through improvements such as curb extensions, turning radii reductions, and pavement markings.



- **Separation from Traffic:** Intersection designs should strive to segregate bicycle and vehicular traffic as much as possible. Designs that allow bicyclists to locate at the front of the intersection when traffic is stopped are preferred.
- **Lighting:** Good 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, more remote intersections may have limited or no signing. However, legibility regarding appropriate bicycle movements should still be taken into account during design.



Examples of different pavement markings and signals for bicyclists at intersections (Photo: W. Peachtree St., Atlanta)

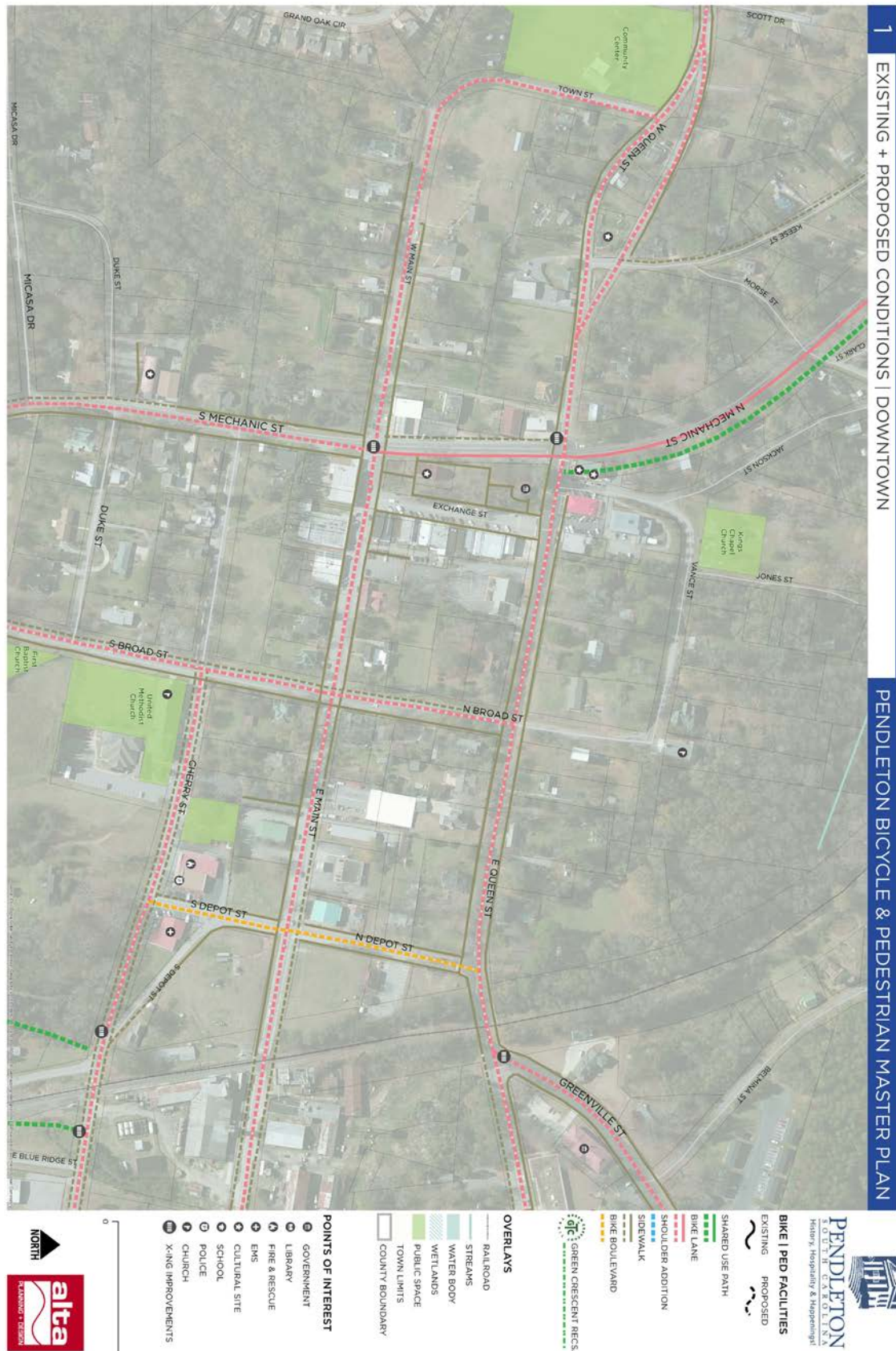


5.2 Network Recommendations

The following maps depict the **long-range vision** for walking and bicycling in Pendleton utilizing recognized best practices for non-motorized transportation planning from around the southeast and the country. **Later sections of this Plan identify initial implementation priorities and action steps** to ensure that the first projects to be implemented as a part of this network have the largest impact on bicycling and walking safety and comfort with the lowest impact and investment.

Within the town limits, the long-range bicycling and walking vision recommends:

- 8.4 Miles of New Sidewalks
- 3.7 Miles of Bicycle Boulevards
- 6.0 Miles of Bicycle Lanes
- 4.0 Miles of Paved Shoulders
- 11.5 Miles of Shared-use Paths
- 15 Bicycle and Pedestrian Intersection Improvements





6 Implementation Plan

Even among cities most committed to improving bicycling conditions, realizing a long-term community-wide vision for bicycling infrastructure improvements can take decades. This is why a thoughtful implementation plan is a must for ensuring that the most impactful and cost-effective projects are prioritized first.

This Implementation Plan identifies the top 10 priority projects from the project recommendations and provides cost estimates for these improvements. Expanded priority project descriptions provide more detail on these top recommendations including photosimulations to help convey what some of these improvements might look like.

6.1 Cost Estimates

Cost estimates for projects were generated from a variety of sources including national datasets such as the 2013 Costs for Pedestrian and Bicyclist Infrastructure Improvements, Conducted by the University of North Carolina, and recent, regional implementation experience. While these costs represent averages for pedestrian and bicycle projects in 2014 dollars, note that individual project costs can vary widely based on a number of conditions including, but not limited to:

- Facility design (width, frequency of material placement, demolition)
- Temporary traffic control requirements
- Environmental requirements
- Utility relocation
- Required right of way acquisition
- Contractor experience and material availability
- Project length or grouping (projects of longer length are typically less expensive than short projects)

Cost estimates and assumptions are presented in the following table. Project costs will vary due to conditions such as physical constraints, rights-of-way purchase, frequency of pavement markings, intersection design, etc. **These costs do not include additional considerations such as project design or contingency costs.**

**Cost Estimates and Assumptions**

Facility Type	Cost Estimate	Assumptions
Bicycle Boulevards and Bicycle Routes	Low: \$10,200 High: \$20,000 Signage: \$625 per unit	Includes regulatory or warning signage and pavement markings only. Wayfinding sign is standard and minimal in design. Additional estimates for traffic calming needed.
Bike Lanes	Low: \$12,000 per mile High: 86,000 per mile	Pavement Restriping Costs Only Based on Existing Conditions
Buffered Bike Lanes	Low: \$15,800 per mile High: \$163,000 per mile	Pavement Restriping Costs Only Based on Existing Conditions
Greenway or Sidepath (Shared-use path)	\$600,000 per mile	10' asphalt path and no ROW purchase required.
Intersection Improvements	Low: \$50,000 High: \$100,000	\$50,000 for pavement markings only. \$100,000 for pavement marking and signal improvements.
Sidewalks without curb construction	\$70 per linear foot	No ROW purchase required
Sidewalks with curb construction	\$350 per linear foot	No ROW purchase required; includes the installation of storm sewers.
Paved Shoulders	\$200,000 per mile	3' paved asphalt shoulder



6.2 Pendleton Top 5 Priority Projects

No.	Corridor	From	To	Fac. Type	Distance	Cost Est.
1.	N Mechanic St	Queen St	Main St	Bike Lanes, Sidewalks, Intersection Improvements	.09 mi	Intersections: \$100,000 Sidewalks: \$175,000 Bike Lanes: \$1,080
2.	W Queen St & Riverside St	N Mechanic St	Riverside Middle School	Sidewalk Repair, Bike Lane	2.08 mi	Bike Lanes: \$24,960 Sidewalk Repair: \$3,500
3.	Existing Sewer Easement	N Mechanic St	S Mechanic St	Shared-Use Path	3.25 mi	\$1,950,000
4.	U.S. 76	S Mechanic St	Woody Rd	Intersection Improvements	N/A	\$450,000
5.	N Mechanic St	Queen St	Town Limit	Shared-Use Path	1.18 mi	\$708,000
					Total	\$3,412,540

Cost estimates for priority projects with sidewalks used the cost estimate for sidewalks with curb construction.

6.2.1 Priority Project Detailed Descriptions

1. N Mechanic St – from Queen St to Main St

Facility Type: Bike Lanes, Sidewalks, Intersection Improvements –

Distance: 500 ft. (0.09 mi.) - **Cost Estimate:** \$276,080

N Mechanic St. comprises one “side” of the historic Pendleton town square. Currently, it lacks definition and bike/pedestrian facilities to enable safe travel and connections to the rest of the square. Figures 1 and 2 show what a new sidewalk (with curb lawn) and bike lanes might look like in conjunction with a redevelopment opportunity for the old garage on N Mechanic St. (Note: The proposed conditions illustration does not accurately portray the proposed on-street parallel parking in the town’s streetscape plan for Mechanic Street at the square.)



Figure 1: Existing Conditions



Figure 2: Proposed Improvements



2. W Queen St & Riverside St – from N Mechanic St to Riverside Middle School

Facility Type: Sidewalk Repair, Bike Lane **Distance:** 2.08 mi. **Cost Estimate:** \$28,460

The route from the square to Riverside Middle School currently has sidewalks the entire length of W Queen St and Riverside St. However, some sidewalk sections are in need of repair and connection. Recommended improvements include bike lanes on both sides of W Queen St and Riverside St. Figures 3 and 4 show what existing and recommended improvements could look like on Riverside St just before Riverside Middle School.



Figure 3: Existing Conditions



Figure 4: Recommended Improvements



3. Existing Sewer Easement — from N Mechanic St to S Mechanic St

Facility Type: Shared-Use Path

Distance: 3.25 mi

Cost Estimate: \$1,950,000

The existing sewer easement presents an opportunity for a shared-use path that would loop around Riverside Middle School and connect N Mechanic to S Mechanic. Figures 5 and 6 show what existing and recommended improvements could look like on a representative section of this new facility.



Figure 5: Existing Conditions



Figure 6: Recommended Improvements



4. U.S. 76 – from S Mechanic St to Woody Rd

Facility Type: Intersection Improvements Cost Estimate: \$450,000

The intersection of U.S. 76 and S Mechanic St/Woody Rd does not provide adequate pedestrian facilities for safe crossing. Figures 7 and 8 show existing conditions and recommended improvements to this key intersection. Improvements include ADA-accessible sidewalk curbs, high-visibility crosswalks, and bike/pedestrian signals.



Figure 7: Existing Conditions

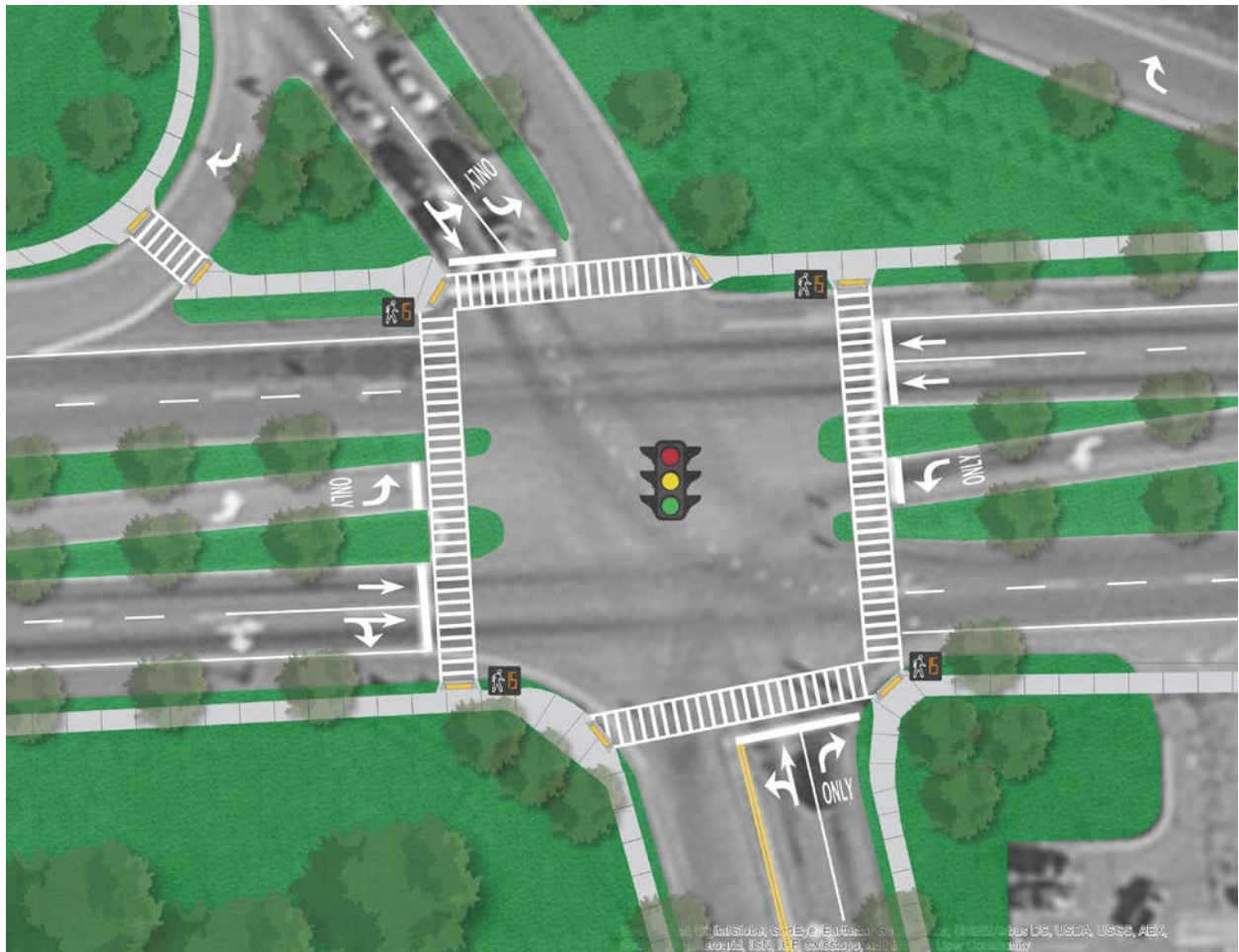


Figure 8: Recommended Improvements



5. North Mechanic St – from Queen St to Town Limit

Facility Type: Shared-Use Path

Distance: 1.18 mi.

Cost Estimate: \$708,000

North Mechanic Street currently features bike lanes from Queen St to the town limits. In addition to these facilities, this corridor should incorporate a shared-use path on the east side of North Mechanic St from Queen St to the bridge just before the Issaquena Rd intersection. This facility would provide a higher level of safety along this busy thoroughfare, provide neighborhood connectivity to downtown, as well as a future connection to the Green Crescent Trail. Figures 9 and 10 show existing conditions and recommended improvements for this facility.



Figure 9: Existing Conditions



Figure 10: Recommended Improvements



6.3 Implementation Strategy

The bicycle facility types presented in the network recommendations are considered the most appropriate facility types for the conditions observed. Considerations when selecting facility types included feasibility of implementation, intended user groups, current traffic and physical conditions, past safety incidents, public input and extensive site observations. While the Town of Pendleton and SCDOT should strive to implement the network as it is presented herein, other unforeseen constraints may prevent this from being possible in all cases. **If unforeseen constraints prevent the recommended facility type from being feasible, the implementing agency should strive to implement the next best facility type** in terms of user separation and safety. For example, if cycle tracks are not feasible on a section of roadway, buffered bike lanes should be installed as an alternative treatment.

In addition, many bikeway improvement recommendations in the Plan are located on South Carolina Department of Transportation jurisdiction roadways. While project priorities are representative of the identified project need and potential benefit and should be followed when possible, **the implementing agency should also look for opportunities to coordinate bikeways construction with SCDOT regularly-programmed maintenance activities**, even if this results in projects that are not priorities being implemented before identified priorities. Coordinating with resurfacing and re-engineering projects that are already programmed **will greatly reduce the costs** of implementing recommended facilities in most cases.



7 Potential Funding Sources

7.1 Federal Funding Sources

Federal funding is typically directed through state agencies to local governments either in the form of grants or direct appropriations, independent from state budgets. Federal funding typically requires a local match of 20%, although there are sometimes exceptions, such as the recent American Recovery and Reinvestment Act stimulus funds, which did not require a match.

The following is a list of possible Federal funding sources that could be used to support construction of many pedestrian and bicycle improvements. Most of these are competitive, and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits. It should be noted that the FHWA encourages the construction of pedestrian and bicycle facilities as an incidental element of larger ongoing projects. Examples include providing paved shoulders on new and reconstructed roads, or building sidewalks, on-street bikeways, trails and marked crosswalks as part of new highways.

The FHWA has recently put together a table that outlines pedestrian and bicycle funding opportunities by improvement type within the US Department of Transportation, Federal Transit Administration and Federal Highway Funding that is helpful as a reference supplement to this chapter:

http://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.cfm

7.1.1 Moving Ahead for Progress in the Twenty-First Century (MAP-21)

The largest source of federal funding for bicyclists and pedestrians is the US DOT's Federal-Aid Highway Program, which Congress has reauthorized roughly every six years since the passage of the Federal-Aid Road Act of 1916. The latest act, Moving Ahead for Progress in the Twenty-First Century (MAP-21) was enacted in July 2012 as Public Law 112-141. The Act replaces the Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU), which was valid from August 2005 - June 2012.

MAP-21 authorizes funding for federal surface transportation programs including highways and transit for the 27 month period between July 2012 and September 2014. It is not possible to guarantee the continued availability of any listed MAP-21 programs, or to predict their future funding levels or policy guidance. Nevertheless, many of these programs have been included in some form since the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991, and thus may continue to provide capital for active transportation projects and programs.

In South Carolina, federal monies are administered through the South Carolina Department of Transportation (SCDOT) and Council of Governments (COG's) or Metropolitan Planning Organizations (MPOs). Most, but not all, of these programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. Federal funding is intended for capital improvements and safety and education programs, and projects must relate to the surface transportation system.



There are a number of programs identified within MAP-21 that are applicable to pedestrian and bicycle projects. These programs are discussed below. More information:

<http://www.fhwa.dot.gov/map21/summaryinfo.cfm>

7.1.2 Transportation Alternatives

Transportation Alternatives (TA) is a new funding source under MAP-21 that consolidates three formerly separate programs under SAFETEA-LU: Transportation Enhancements (TE), Safe Routes to School (SR2S), and the Recreational Trails Program (RTP). These funds may be used for a variety of pedestrian, bicycle, and streetscape projects including sidewalks, bikeways, multi-use paths, and rail-trails. TA funds may also be used for selected education and encouragement programming such as Safe Routes to School, despite the fact that TA does not provide a guaranteed set-aside for this activity as SAFETEA-LU did. South Carolina's Governor did not opt-out of the Recreational Trails Program funds, ensuring that dedicated funds for recreational trails continue to be provided as a subset of TA. MAP-21 provides \$85 million nationally for the RTP.

Complete eligibilities for TA include:

1. Transportation Alternatives as defined by Section 1103 (a)(29). This category includes the construction, planning, and design of a range of pedestrian and bicycle infrastructure including “on-road and off-road trail facilities for pedestrians, bicyclists, and other active forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990.” Infrastructure projects and systems that provide “Safe Routes for Non-Drivers” is a new eligible activity.

For the complete list of eligible activities, visit:

http://www.fhwa.dot.gov/environment/transportation_enhancements/legislation/map21.cfm

2. Recreational Trails. TA funds may be used to develop and maintain recreational trails and trail-related facilities for both active and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other active and motorized uses. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails
- State administrative costs related to this program (limited to seven percent of a state's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a state's funds)



Under MAP-21, dedicated funding for the RTP continues at FY 2009 levels – roughly \$85 million annually. South Carolina will receive \$1,211,220 in RTP funds per year through FY2014. Grant applications are typically due in April. More info on administration of the Recreational Trails Program in South Carolina can be found through the following site: <http://www.scprrt.com/our-partners/grants/trails.aspx>

3.) Safe Routes to School. The purpose of the Safe Routes to Schools eligibility is to promote safe, healthy alternatives to riding the bus or being driven to school. All projects must be within two miles of primary or middle schools (K-8).

Eligible projects may include:

- Engineering improvements. These physical improvements are designed to reduce potential pedestrian and bicycle conflicts with motor vehicles. Physical improvements may also reduce motor vehicle traffic volumes around schools, establish safer and more accessible crossings, or construct walkways, trails or bikeways. Eligible projects include sidewalk improvements, traffic calming/speed reduction, pedestrian and bicycle crossing improvements, on-street bicycle facilities, off-street pedestrian and bicycle facilities, and secure bicycle parking facilities.
- Education and Encouragement Efforts. These programs are designed to teach children safe bicycling and walking skills while educating them about the health benefits, and environmental impacts. Projects and programs may include creation, distribution and implementation of educational materials; safety based field trips; interactive bicycle/pedestrian safety video games; and promotional events and activities (e.g., assemblies, bicycle rodeos, walking school buses).
- Enforcement Efforts. These programs aim to ensure that traffic laws near schools are obeyed. Law enforcement activities apply to cyclists, pedestrians and motor vehicles alike. Projects may include development of a crossing guard program, enforcement equipment, photo enforcement, and pedestrian sting operations.

In South Carolina, SRTS projects utilizing the remaining SAFETEA-LU funding require no matching funds by the local implementing agency. However, all SRTS projects moving forward that utilize MAP-21 TA funding require a 20% monetary match.

4.) Planning, designing, or constructing roadways within the right-of-way of former Interstate routes or divided highways. At the time of writing, detailed guidance from the Federal Highway Administration on this new eligible activity was not available.

Average annual funds available through TA over the life of MAP-21 equal \$814 million nationally, which is based on a 2% set-aside of total MAP-21 authorizations. It is likely that 2015 funding will be substantially less than previous years due to a smaller overall apportionment of MAP-21 funding (<http://www.fhwa.dot.gov/MAP21/funding.cfm>). State DOTs may elect to transfer up to 50% of TA funds to other highway programs, so the amount listed above represents the maximum potential funding.

TA funds are typically allocated through the planning districts. Pendleton's funding would come through GPATS. TA funds require a 20% local match and must be administered by either SCDOT or a qualified Local Public Agency (LPA).



7.1.3 Congestion Mitigation/Air Quality Program

The Congestion Mitigation/Air Quality Improvement Program (CMAQ) provides funding for projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide, and particulate matter which reduce transportation related emissions. States with no non-attainment areas such as South Carolina may use their CMAQ funds for any CMAQ or STP eligible project. These federal dollars can be used to build pedestrian and bicycle facilities that reduce travel by automobile. Purely recreational facilities generally are not eligible.

7.1.4 Partnership for Sustainable Communities

Founded in 2009, the Partnership for Sustainable Communities is a joint project of the Environmental Protection Agency (EPA), the U.S. Department of Housing and Urban Development (HUD), and the U.S. Department of Transportation (USDOT). The partnership aims to “improve access to affordable housing, more transportation options, and lower transportation costs while protecting the environment in communities nationwide.” The Partnership is based on five Livability Principles, one of which explicitly addresses the need for pedestrian and bicycle infrastructure (“Provide more transportation choices: Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation’s dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health”).

The Partnership is not a formal agency with a regular annual grant program. Nevertheless, it is an important effort that has already led to some new grant opportunities (including the TIGER grants). Pendleton should track partnership communications and be prepared to respond proactively to announcements of new grant programs.

More information: <http://www.epa.gov/smartgrowth/partnership/>

7.1.5 Rivers, Trails, and Conservation Assistance Program

The Rivers, Trails, and Conservation Assistance Program (RTCA) is a National Parks Service (NPS) program providing technical assistance via direct NPS staff involvement to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based on criteria including conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation, and focusing on lasting accomplishments. This program may benefit trail development in Pendleton and the region indirectly through technical assistance, particularly for community organizations, but should not be considered a future capital funding source.

More information: <http://www.nps.gov/orgs/rtca/apply.htm>

7.1.6 Community Development Block Grants

The Community Development Block Grants (CDBG) program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal CDBG grantees may



“use Community Development Block Grants funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grants funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs.”

Trails and greenway projects that enhance accessibility are the best fit for this funding source. CDBG funds could also be used to write an ADA Transition Plans.

More information: www.hud.gov/cdbg

7.1.7 Community Transformation Grants

Community Transformation Grants administered through the Center for Disease Control support community-level efforts to reduce chronic diseases such as heart disease, cancer, stroke, and diabetes. Active transportation infrastructure and programs that promote healthy lifestyles are a good fit for this program, particularly if the benefits of such improvements accrue to population groups experiencing the greatest burden of chronic disease.

In past years, SCDHEC has received over \$4.5 M annually in grant money from this program and has used it to fund internal position and has administered it to various programs across the state such as *Eat Smart Move More!*

More info: <http://www.cdc.gov/communitytransformation/>

7.1.8 Land and Water Conservation Fund (LWCF)

The Land and Water Conservation Fund (LWCF) provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. Funds can be used for right-of-way acquisition and construction. The program is administered by the South Carolina Department of Parks, Recreation & Tourism as a grant program. Any projects located in future parks could benefit from planning and land acquisition funding through the LWCF. Trail corridor acquisition can be funded with LWCF grants as well. This program requires a 50-50 match – applications are due in the spring.

More information: <http://www.scprt.com/our-partners/grants/lwcf.aspx>

7.1.9 Federal Lands Access Program (FLAP)

FLAP is a grant program initiated by the MAP-21 transportation bill that provides funding specifically for access on or to federal lands – this includes bicycle and pedestrian improvements.

Unless reauthorized, the funding for this program will expire with MAP-21, for more information on this program, refer to the following website: <http://www.efl.fhwa.dot.gov/programs/federal-lands-access.aspx>



7.1.10 EPA Green Infrastructure Grant Sources

The EPA offers a number of grant resources that serve to improve clean water in communities such as the EPA Clean Water State Revolving Fund, EPA Clean Water Act Nonpoint Source Grant and EPA Community Action for a Renewed Environment (CARE) Grants. More information on these, and other funding sources can be found through the EPA's website:

http://water.epa.gov/infrastructure/greeninfrastructure/gi_funding.cfm

7.1.11 New Freedom Initiative

MAP-21 continues this initiative under Section 5310 – Enhanced Mobility of Seniors and Individuals with Disabilities. Section 5310 provides capital and operating costs to provide transportation services and facility improvements that exceed those required by the Americans with Disabilities Act. Examples of pedestrian/accessibility projects funded in other communities through the New Freedom Initiative include installing Accessible Pedestrian Signals (APS), enhancing transit stops to improve accessibility, and establishing a mobility coordinator position. In 2013 and 2014, over \$250 M dollars were available nationwide through this grant program. Funds granted through this program require a 20% local match.

More information: <http://www.hhs.gov/newfreedom/>



7.1.12 Other Federal Transit Administration Funding Sources for Pedestrian Infrastructure, Bicycling Infrastructure and Bike Share.

Most FTA funding can be used to fund pedestrian and bicycle projects “that enhance or are related to public transportation facilities.”

According to the FTA, an FTA grantee may use any of the following programs under Title 49, Chapter 53, of the United States Code to fund capital projects for pedestrian and bicycle access to a public transportation facility:

- Section 5307 Urbanized Area Formula Program;
- Section 5309 New Starts and Small Starts Major Capital Investment Programs;
- Section 5309 Fixed Guideway Modernization Program;
- Section 5309 Bus and Bus Facilities Discretionary Program;
- Section 5310 Elderly Individuals and Individuals with Disabilities Formula Program;
- Section 5311 Non-Urbanized Area Formula Program;
- Section 5311 Public Transportation on Indian Reservations;
- Section 5316 Job Access and Reverse Commute Formula Program;
- Section 5317 New Freedom Program; and,
- Section 5320 Paul S. Sarbanes Alternative Transportation in Parks and Public Lands.

7.1.13 Center for Disease Control Grant Opportunities

The CDC provides funding opportunities for several different organization and jurisdiction types that can potentially support pedestrian and bicycle infrastructure, planning or other support programs. An overview of these different programs and funding cycles can be found here:

<http://www.cdc.gov/chronicdisease/features/funding-opportunity-announcements.htm>,
<http://www.cdc.gov/chronicdisease/about/2014-foa-awards.htm#stateLocal>).

As an example of a project type, the YMCA of Greater Cleveland was awarded close to \$1M in funding in 2014 to administer funding of a citywide protected bikeway plan and transportation-related Health Impact Assessments, among other projects.

7.1.14 Additional Federal Funding

The landscape of federal funding opportunities for pedestrian and bicycle programs and projects is always changing. A number of Federal agencies, including the Bureau of Land Management, the Department of Health and Human Services, the Department of Energy, and the Environmental Protection Agency have offered grant programs amenable to pedestrian and bicycle planning and implementation, and may do so again in the future.

For up-to-date information about grant programs through all federal agencies, see:

<http://www.grants.gov/>



7.2 State Funding Sources

The following is a list of possible State funding sources that could be used to support construction of many pedestrian and bicycle improvements in Pendleton.

7.2.1 Surface Transportation Program (Guideshare)

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a variety of highway, road, bridge, and transit projects. A wide variety of pedestrian and bicycle improvements are eligible, including on-street bicycle facilities, off-street trails, sidewalks, crosswalks, pedestrian and bicycle signals, parking, and other ancillary facilities. Modification of sidewalks to comply with the requirements of the Americans with Disabilities Act (ADA) is also an eligible activity. Unlike most highway projects, STP-funded pedestrian and bicycle facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. Fifty percent of each state's STP funds are sub-allocated geographically by population. These funds are funneled through SCDOT to the MPOs in the state. The remaining fifty percent may be spent in any area of the state. In South Carolina, STP is known as Guideshare.

GPATS is the third largest MPO in South Carolina and typically receives \$14.8M in Guideshare funding each year.

7.2.2 South Carolina C Funds

South Carolina has a long-established program that provides funding to counties to administer projects on state and local roads. Funding for this program comes from a portion of State fuel tax revenues. Up to 75% of these funds may be used for projects on local-jurisdiction roadways, with the remainder being utilized on State-jurisdiction roadways. Bikeway and sidewalk improvements as a part of repaving or reconstruction are eligible project types.

More information on the C-fund program can be found here:

<http://www.scdot.org/doing/cprogram.aspx>

7.2.3 Highway Safety Improvement Program

MAP-21 doubles the amount of funding available through the Highway Safety Improvement Program (HSIP) relative to SAFETEA-LU. HSIP provides \$2.4 billion nationally for projects and programs that help communities achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways, and walkways. Infrastructure and non-infrastructure projects are eligible for HSIP funds. Pedestrian and bicycle safety improvements, enforcement activities, traffic calming projects, and crossing treatments for active transportation users in school zones are examples of eligible projects. All HSIP projects must be consistent with the state's Strategic Highway Safety Plan.

Pedestrian and bicycle strategies identified in the 2014 Draft SHSP include engineering bike lanes, sidewalks and shared-use paths, especially where supported by crash data, educational programs and targeted enforcement.



Last updated in 2007, the SCDOT SHSP is located here:

http://www.scdot.org/inside/pdfs/Multimodal/Road_Map.pdf

The 2014 Draft SHSP can be accessed here:

http://www.dot.state.sc.us/inside/pdfs/publicComment/multimodal_scStrategicHighwaySafetyPlan.pdf

7.2.4 The South Carolina Transportation Infrastructure Bank

(SCTIB) is a statewide revolving loan fund designed in 1997 to assist major transportation projects in excess of \$100 million in value. The SCTIB has since approved more than \$4.5 billion in financial assistance and is arguably the largest and most active State Infrastructure Bank in the country. SCTIB funded development of the Palmetto Parkway in Aiken County, which included development of a roughly five mile multi-use trail within the parkway's right of way.

More information: <http://sctib.sc.gov/Pages/default.aspx>

7.2.5 South Carolina Department of Transportation – Capital Projects

Pendleton should work closely with SCDOT to include pedestrian and bicycle improvements as part of major projects. The two groups should cooperate on a regular basis to identify opportunities for implementation of the Pendleton Bicycle and Pedestrian Master Plan.

7.2.6 South Carolina Department of Transportation – Maintenance Program

The South Carolina Department of Transportation carries out a number of road resurfacing maintenance projects annually. There may be opportunities for road restriping to be completed as part of regular roadway maintenance. This will require coordination between Pendleton, the SCDOT District Traffic Engineer and the local maintenance office to ensure that the pavement marking design is appropriate and safe for cyclists and drivers.

7.2.7 South Carolina Parks and Recreation Development Fund (PARD)

The PARD grant program is a state funded non-competitive reimbursable grant program for eligible local governments or special purposes district entities within each county which provide recreational opportunities. The fund requires a 20% cash or in-kind match. The following bullets highlight characteristics of the grant program.

- Monthly grant cycle.
- Non-competitive program available to eligible local governmental entities within each county area for development of new public recreation facilities or enhancement/renovations to existing facilities.
- Projects need endorsement of majority weighted vote factor of County Legislative Delegation Members.
- This is an 80-20 match program.



- Application Deadline is the 10th of each month.

PARD funding is allocated on a county-by-county basis and comes from a portion of the State's bingo revenues. In 2013, insufficient revenue was generated to fund the PARD program, but this program may be revitalized in the future.

More information: <http://www.scprt.com/our-partners/grants/pard.aspx>.

7.2.8 Statewide Transportation Improvement Program

The Statewide Transportation Improvement Program (STIP) is SCDOT's short-term capital improvement program, providing project funding and scheduling information for the department and South Carolina's metropolitan planning organizations. The program provides guidance for the next six years and is updated every three years. The South Carolina Department of Transportation Commission, as well as the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), approve the STIP.

In developing this funding program, SCDOT must verify that the identified projects comply with existing transportation and comprehensive plans. The STIP must fulfill federal planning requirements for a staged, multi-year, statewide, intermodal program of transportation projects. Specific transportation projects are prioritized based on Federal planning requirements and the specific State plans.

More information: <http://www.scdot.org/inside/stip.aspx>

7.3 Local Government Funding Sources

Local funding sources that would support bike facility project construction will most likely be limited, but should be explored to support Pendleton active transportation projects.

7.3.1 General Fund

The General Fund is often used to pay for maintenance expenses and limited capital improvement projects. Projects identified for reconstruction or re-pavement as part of the Capital Improvements list should also incorporate recommendations for bicycle or pedestrian improvements in order to reduce additional costs.

7.3.2 Local Bond Measures

Local bond measures, or levies, are usually general obligation bonds for specific projects. Bond measures are typically limited by time based on the debt load of the local government or the project under focus. Funding from bond measures can be used for engineering, design and construction of trails, greenways, and pedestrian and bicycle facilities. A bond issued in Denver, Colorado funded \$5 million for trail development and also funded the City's bike planner for several years. In 2012, voters in Austin, Texas approved a \$143 million bond measure to fund a variety of mobility and active transportation projects. A project paid for with a bond measure will need to be repaid through a designated revenue stream such as parking revenues or other user fees.



7.3.3 Stormwater Utility Fees

Stormwater charges are typically based on an estimate of the amount of impervious surface on a user's property. Impervious surfaces (such as rooftops and paved areas) increase both the amount and rate of stormwater runoff compared to natural conditions. Such surfaces cause runoff that directly or indirectly discharges into public storm drainage facilities and creates a need for stormwater management services. Thus, users with more impervious surface are charged more for stormwater service than users with less impervious surface.

The rates, fees, and charges collected for stormwater management services may not exceed the costs incurred to provide these services. The costs that may be recovered through the stormwater rates, fees, and charges includes any costs necessary to assure that all aspects of stormwater quality and quantity are managed in accordance with federal and state laws, regulations, and rules. Open space may be purchased with stormwater fees, if the property in question is used to mitigate floodwater or filter pollutants.

7.3.4 System Development Charges/Developer Impact Fees

System Development Charges (SDCs), also known as Developer Impact Fees, represent another potential local funding source. SDCs are typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- or off-site pedestrian improvements that will encourage residents to walk (or use transit, if available) rather than drive. In-lieu parking fees may be used to help construct new or improved pedestrian facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

7.3.5 Street User Fees

Many cities administer street user fees through residents' monthly water or other utility bills. The revenue generated by the fee can be used for operations and maintenance of the street system, and priorities would be established by the Public Works Department. Revenue from this fund can be used to maintain on-street pedestrian and bicycle facilities, including routine sweeping of bicycle lanes and other designated bicycle routes.

7.3.6 In Lieu of Fees

Developers often dedicate open space or greenways in exchange for waiving fees associated with park and open space allocation requirements in respect to proposed development. These types of requirements are presented within local municipal codes and ordinances.

7.3.7 Utility Lease Revenue

A method to generate revenues from land leased to utilities for locating utility infrastructure on municipally owned parcels. This can improve capital budgets and support financial interest in property that would not otherwise create revenue for the government.



7.3.8 Local Improvement Districts (LIDs)

Local Improvement Districts (LIDs) are most often used by cities to construct localized projects such as streets, sidewalks or bikeways. Through the LID process, the costs of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other methods such as traffic trip generation. Based on South Carolina's Municipal Improvements Act of 1999, LIDs can include a Municipal Improvement District (MID), a County Public Works Improvement District (CPWID) or a Residential Improvement District (RID).

Several cities have successfully used LID funds to make improvements on residential streets and for large scale arterial projects. LIDs formed to finance commercial street development can be "full cost," in which the property assessments are entirely borne by the property owners.

7.3.9 Business Improvement Area or District (BIA or BID)

Trail development and pedestrian and bicycle improvements can often be included as part of larger efforts aimed at business improvement and retail district beautification. Business Improvement Areas collect levies on businesses in order to fund area-wide improvements that benefit businesses and improve access for customers. These districts may include provisions for pedestrian and bicycle improvements, including as wider sidewalks, landscaping and ADA compliance.

7.3.10 Sales Tax

Local governments that choose to exercise a local option sales tax use the tax revenues to provide funding for a wide variety of projects and activities.

7.3.11 Property Tax

Property taxes generally support a significant portion of a local government's activities. However, the revenues from property taxes can also be used to pay debt service on general obligation bonds issued to finance open space system acquisitions. Because of limits imposed on tax rates, use of property taxes to fund open space could limit the municipality's ability to raise funds for other activities. Property taxes can provide a steady stream of financing while broadly distributing the tax burden. In other parts of the country, this mechanism has been popular with voters as long as the increase is restricted to parks and open space. It should be noted that other public agencies compete vigorously for these funds, and taxpayers are generally concerned about high property tax rates.

7.3.12 Excise Taxes

Excise taxes are taxes on specific goods and services. These taxes require special legislation and the use of the funds generated through the tax are limited to specific uses. Examples include lodging, food, and beverage taxes that generate funds for promotion of tourism, and the gas tax that generates revenues for transportation-related activities.



7.3.13 Tax Increment Financing (TIF)

Tax Increment Financing is a tool to use future gains in taxes to finance the current improvements that will create those gains. When a public project (e.g., shared use trail) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to support the debt created by the original public improvement project.

More information on the legal requirements for TIF for Redevelopment Projects can be found here:

<http://www.scstatehouse.gov/code/t31c006.php>

7.4 Private Sector Funding Sources

Many communities have solicited greenway funding assistance from private foundations and other conservation-minded benefactors. Below are several examples of private funding opportunities available.

7.4.1 Bikes Belong Grant Program

The Bikes Belong Coalition of bicycle suppliers and retailers has awarded \$1.2 million and leveraged an additional \$470 million since its inception in 1999. The program funds corridor improvements, mountain bike trails, BMX parks, trails, and park access. It is funded by the Bikes Belong Employee Pro Purchase Program.

More information: <http://www.bikesbelong.org/grants/>

7.4.2 The Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation was established as a national philanthropy in 1972 and today it is the largest U.S. foundation devoted to improving the health and health care of all Americans. Grant making is concentrated in four areas:

- To assure that all Americans have access to basic health care at a reasonable cost
- To improve care and support for people with chronic health conditions
- To promote healthy communities and lifestyles
- To reduce the personal, social and economic harm caused by substance abuse: tobacco, alcohol, and illicit drugs

More information: <http://www.rwjf.org/applications/>

7.4.3 Bank of America Charitable Foundation, Inc.

The Bank of America Charitable Foundation is one of the largest in the nation. The primary grants program is called Neighborhood Excellence, which seeks to identify critical issues in local communities. Another program that applies to greenways is the Community Development Programs, and specifically the Program Related Investments. This program targets low and moderate income communities and serves to encourage entrepreneurial business development.



More information: <http://www.bankofamerica.com/foundation>

7.4.4 The Walmart Foundation

The Walmart Foundation offers a Local, State, and National Giving Program. The Local Giving Program awards grants of \$250 to \$5,000 through local Walmart and Sam's Club Stores. Application opportunities are announced annually in February with a final deadline for applications in December. The State Giving Program provides grants of \$25,000 to \$250,000 to 501c3 nonprofits working within one of five focus areas: Hunger Relief & Nutrition, Education, Environmental Sustainability, Women's Economic Empowerment, or Workforce Development. The program has two application cycles per year: January through March and June through August. The Walmart Foundation's National Giving Program awards grants of \$250,000 and more, but does not accept unsolicited applications.

More information: <http://foundation.walmart.com/apply-for-grants>

7.4.5 Duke Energy Foundation

Funded by Duke Energy shareholders, this non-profit organization makes charitable grants to selected non-profits or governmental subdivisions. Each annual grant must have:

- An internal Duke Energy business "sponsor"
- A clear business reason for making the contribution

The grant program has three focus areas: Environment and Energy Efficiency, Economic Development, and Community Vitality. Related to this project, the Foundation would support programs that support conservation, training and research around environmental and energy efficiency initiatives.

More information: <http://www.duke-energy.com/community/foundation.asp>

7.4.6 Duke Energy Water Resources Fund

Duke Energy recently established a grant program that funds local efforts to address water quality and quantity issues on waterways it works on. The grant is prioritized to projects that 1.) Address water quality and quantity issues in streams or watersheds that are identified as priorities in state or local watershed action plans 2.) Encourage education and awareness of water quality, quantity and conservation issues preferably focused on helping individuals understand how their actions impact the overall health of a river basin 3.) Research focused on improving water quality, quantity and conservation issues 4.) River management plans 5.) Watershed studies 6.) Purchase conservation easements and 7.) Improve public access to waterways. For example, greenway projects that run adjacent to waterways and provide access to those resources or educational opportunities about them would be viewed favorably.

There are currently 6 grant cycles planned which run through May 2017. Grants are for one year and will range from \$10,000 to \$100,000. Grants which leverage funds from other sources are favorable. For more information on grant cycles and application requirements visit the Water Resources Fund website:

<http://www.duke-energy.com/community/foundation/water-resources-fund.asp>



7.4.7 The Kodak American Greenways Program

The Conservation Fund's American Greenways Program has teamed with the Eastman Kodak Corporation and the National Geographic Society to award small grants (\$250 to \$2,000) to stimulate the planning, design and development of greenways. These grants can be used for activities such as mapping, conducting ecological assessments, surveying land, holding conferences, developing brochures, producing interpretive displays, incorporating land trusts, and building trails. Grants cannot be used for academic research, institutional support, lobbying or political activities.

More information: <http://www.conservationfund.org>

7.4.8 National Trails Fund

American Hiking Society created the National Trails Fund in 1998, the only privately supported national grants program providing funding to grassroots organizations working toward establishing, protecting and maintaining foot trails in America. 73 million people enjoy foot trails annually, yet many of our favorite trails need major repairs due to a \$200 million backlog of badly needed maintenance. National Trails Fund grants help give local organizations the resources they need to secure access, volunteers, tools and materials to protect America's cherished public trails. To date, American Hiking has granted more than \$240,000 to 56 different trail projects across the U.S. for land acquisition, constituency building campaigns, and traditional trail work projects. Awards range from \$500 to \$10,000 per project.

Projects the American Hiking Society will consider include:

- Securing trail lands, including acquisition of trails and trail corridors, and the costs associated with acquiring conservation easements.
- Building and maintaining trails which will result in visible and substantial ease of access, improved hiker safety, and/or avoidance of environmental damage.
- Constituency building surrounding specific trail projects - including volunteer recruitment and support.

More information: <http://www.americanhiking.org/alliance/fund.html>

7.4.9 The Conservation Alliance

The Conservation Alliance is a non-profit organization of outdoor businesses whose collective annual membership dues support grassroots citizen-action groups and their efforts to protect wild and natural areas. One hundred percent of its member companies' dues go directly to diverse, local community groups across the nation—groups like Southern Utah Wilderness Alliance, Alliance for the Wild Rockies, The Greater Yellowstone Coalition, the South Yuba River Citizens' League, RESTORE: The North Woods and the Sinkyoone Wilderness Council (a Native American-owned/operated wilderness park). For these groups, who seek to protect the last great wild lands and waterways from resource extraction and commercial development, the Alliance's grants are substantial in size (about \$35,000 each), and have often made the difference between success and defeat. Since its inception in 1989, The Conservation Alliance has contributed \$4,775,059 to grassroots environmental groups across the nation, and its



member companies are proud of the results: To date the groups funded have saved over 34 million acres of wild lands and 14 dams have been either prevented or removed-all through grassroots community efforts.

The Conservation Alliance is a unique funding source for grassroots environmental groups. It is the only environmental grant maker whose funds come from a potent yet largely untapped constituency for protection of ecosystems – the active transportation outdoor recreation industry and its customers. This industry has great incentive to protect the places in which people use the clothing, hiking boots, tents and backpacks it sells. The industry is also uniquely positioned to educate outdoor enthusiasts about threats to wild places, and engage them to take action. Finally, when it comes to decision-makers, especially those in the Forest Service, National Park Service, and Bureau of Land Management, this industry has clout - an important tool that small advocacy groups can wield.

The Conservation Alliance Funding Criteria: The Project should be focused primarily on direct citizen action to protect and enhance our natural resources for recreation. The Alliance does not look for mainstream education or scientific research projects, but rather for active campaigns. All projects should be quantifiable, with specific goals, objectives and action plans and should include a measure for evaluating success. The project should have a good chance for closure or significant measurable results over a fairly short term (one to two years). Funding emphasis may not be on general operating expenses or staff payroll.

More information: <http://www.conservationalliance.com/index.m>

7.4.10 National Fish and Wildlife Foundation (NFWF)

The National Fish and Wildlife Foundation (NFWF) is a private, nonprofit, tax-exempt organization chartered by Congress in 1984. The National Fish and Wildlife Foundation sustains, restores, and enhances the Nation's fish, wildlife, plants and habitats. Through leadership conservation investments with public and private partners, the Foundation is dedicated to achieving maximum conservation impact by developing and applying best practices and innovative methods for measurable outcomes.

The Foundation awards matching grants under its Keystone Initiatives to achieve measurable outcomes in the conservation of fish, wildlife, plants and the habitats on which they depend. Awards are made on a competitive basis to eligible grant recipients, including federal, tribal, state, and local governments, educational institutions, and non-profit conservation organizations. Project proposals are received on a year-round, revolving basis with two decision cycles per year. Grants generally range from \$50,000-\$300,000 and typically require a minimum 2:1 non-federal match.

Funding priorities include bird, fish, marine/coastal, and wildlife and habitat conservation. Other projects that are considered include controlling invasive species, enhancing delivery of ecosystem services in agricultural systems, minimizing the impact on wildlife of emerging energy sources, and developing future conservation leaders and professionals.

More information: <http://www.nfwf.org/AM/Template.cfm?Section=Grants>



7.4.11 The Trust for Public Land

Land conservation is central to the mission of the Trust for Public Land (TPL). Founded in 1972, the Trust for Public Land is the only national nonprofit working exclusively to protect land for human enjoyment and wellbeing. TPL helps conserve land for recreation and spiritual nourishment and to improve the health and quality of life of American communities. Also, TPL is the leading organization helping agencies and communities identify and create funds for conservation from federal, state, local, and philanthropic sources.

Since 1996, TPL has helped states and communities craft and pass over 382 successful ballot measures, generating \$34 billion in new conservation-related funding.

More information: <http://www.tpl.org/what-we-do/services/conservation-finance/>

7.4.12 Community Action for a Renewed Environment (CARE)

CARE is a competitive grant program that offers an innovative way for a community to organize and take action to re-duce toxic pollution in its local environment. Through CARE, a community creates a partnership that implements solutions to reduce releases of toxic pollutants and minimize people's exposure to them. By providing financial and technical assistance, EPA helps CARE communities get on the path to a renewed environment. Transportation and "smart-growth" types of projects are eligible. Grants range between \$90,000 and \$275,000.

More information: <http://www.epa.gov/care/>

7.4.13 Local Trail Sponsors

A sponsorship program for trail amenities allows smaller donations to be received from both individuals and businesses. Cash donations could be placed into a trust fund to be accessed for certain construction or acquisition projects associated with the greenways and open space system. Some recognition of the donors is appropriate and can be accomplished through the placement of a plaque, the naming of a trail segment, and/or special recognition at an opening ceremony. Types of gifts other than cash could include donations of services, equipment, labor, or reduced costs for supplies.

7.4.14 Corporate Donations

Corporate donations are often received in the form of liquid investments (i.e. cash, stock, bonds) and in the form of land. Employers recognize that creating places to bike and walk is one way to build community and attract a quality work force. Bicycling and outdoor recreation businesses often support local projects and programs. Municipalities typically create funds to facilitate and simplify a transaction from a corporation's donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented. Such donations can improve capital budgets and/or projects.



7.5 Other Sources

7.5.1 Volunteer Work and Public-Private Partnerships

Individual volunteers from the community can be brought together with groups of volunteers from church groups, civic groups, scout troops and environmental groups to work on greenway development on special community workdays. Volunteers can also be used for fundraising, maintenance, and programming needs. Local schools or community groups may use the bikeway projects as a project for the year, possibly working with a local designer or engineer. Work parties may be formed to help clear the right-of-way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may be a good source of local funding, where corporations ‘adopt’ a bikeway and help construct and maintain the facility.

7.5.2 Private Individual Donations

Private individual donations can come in the form of liquid investments (i.e. cash, stock, bonds) or land. Municipalities typically create funds to facilitate and simplify a transaction from an individual’s donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented. Such donations can improve capital budgets and/or projects.

7.5.3 Fundraising / Campaign Drives

Organizations and individuals can participate in a fundraiser or a campaign drive. It is essential to market the purpose of a fundraiser to rally support and financial backing. Oftentimes fundraising satisfies the need for public awareness, public education, and financial support.

7.5.4 Land Trust Acquisition and Donation

Land trusts are held by a third party other than the primary holder and the beneficiaries. This land is oftentimes held in a corporation for facilitating the transfer between two parties. For conservation purposes, land is often held in a land trust and received through a land trust. A land trust typically has a specific purpose such as conservation and is used so land will be preserved as the primary holder had originally intended.

7.5.5 Adopt a Trail Program

A challenge grant program with local businesses may be a good source of local funding, where corporations ‘adopt’ a trail and help maintain the facility. Foundation grants, volunteer work, and donations of in-kind services, equipment, labor or materials are other sources of support that can play a supporting role in gathering resources to design and build new pedestrian and bicycle facilities.

Residents and other community members are excellent resources for garnering support and enthusiasm for a trail, and Pendleton should work with volunteers to substantially reduce implementation and maintenance costs. Local schools, community groups, or a group of dedicated neighbors may use the project as a goal for the year, possibly working with a local designer or engineer. Work parties can be formed to help clear the right-of-way for a new trail or maintain existing facilities where needed.