Horry County
Bicycle and Pedestrian Plan

Horry County
SOUTH CAROLINA
Committed to Excellence

Horry County Planning and Zoning Department

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INTRODUCTION

Since the 1970's, Horry County's population growth has been continuously in the double-digits, and the County has almost tripled in population size. The latest count is 269,291 persons as of the 2010 Census.

With its year-round warm climate, its attractive beaches and popular natural resources, the influx of people who want to enjoy what Horry County has to offer is not surprising. Likewise, the county has profited economically from all of these new residents. Along with rapid development and population growth come more demands and needs on both public infrastructure and recreation. Although Horry County has invested heavily in new roads and road improvements as well as new schools, parks and other public facilities, it now is facing high demand for better non-motorized connectivity and healthier transportation choices, particularly for bicycling and walking.

The intent of this Horry County Bicycle and Pedestrian Plan is to look at different areas and communities in Horry County and to make recommendations on how to most (cost-)effectively provide for better connectivity for bicyclists and pedestrians.

THE BENEFITS OF BICYCLING AND WALKING

Many studies in the fields of public health, urban planning, ecology, real estate, transportation, sociology and economics show that supporting and improving conditions to foster more bicycling and walking will improve people's health and fitness, create economic benefits, enhance environmental conditions, decrease traffic congestion and contribute to a greater sense of community and quality of life.

Improving Public Health:

- While bicycling and walking levels fell 66% between 1960 and 2009, obesity rates have increased by 156% (U.S. Census Journey to Work; American Community Survey, 1960-2009). Although these two trends are not the only factors involved, the correlation cannot be ignored.
- Further studies show that states where bicycling and walking levels are lowest have the highest levels of obesity.
- In South Carolina 66% of the population is considered "overweight" and 30% is obese (2009) whereas only 2.3% of trips to work were made either by bike or on foot (SC v. US: 40th for cycling to work; 43rd for walking to work).
- In general, states with the highest levels of bicycling and walking have the lowest levels of obesity, hypertension (high blood pressure) and diabetes and have the greatest percentage of adults who meet the recommended 30-plus

minutes per day of physical activity (60 minutes for youth).

- The Center of Disease Control and Prevention (CDC) also proved that "physical inactivity causes numerous physical and mental health problems and is responsible for an estimated 200,000 deaths per year, and contributes to the obesity epidemic.

Result: Better infrastructure and connectivity for bicyclists and walkers needs to be provided to improve public health in Horry County.

Creating Economic Benefits:

- Recent studies have shown that communities that invest in modes of active transportation, i.e. bicycling and walking, have higher property values, create new jobs and attract tourists. Other impacts on local economies can include increased business at local establishments, initial economic boost from construction, and impacts from bicycling and walking events (e.g. cycling races, charity walks, etc.) and tourism.
- According to a recent study by Garrett-Peltier in 2010, "pedestrian and bicycle infrastructure projects create 11-14 jobs per $1million of spending while road infrastructure projects create approx. 7 jobs per $1million of expenditures".
- Bicycle and walking are affordable means of transportation. According to the Pedestrian and Bicycle Information Center (PBIC) of Chapel Hill, NC, the cost of operating a bicycle for a year is approximately $120, compared to $7,800 for operating a car over the same period of time.
- Numerous studies have examined the positive effect of proximity to trails and other bicycling and walking facilities on property values. A 2008 study found that the Little Miami Scenic Trail in Ohio positively impacts single-family residential property values, with sales prices increasing by $7.05 for every foot closer a property is located to the trail (Karadeniz, 2008). A similar study from Vermont showed that property values in walkable communities were an average of $6,500 higher than in car-dependant neighborhoods.

Result: Providing new facilities for bicycling and walking have a positive economic impact.

Enhancing Environmental Conditions:

- When people get out of their cars and onto their bicycles and feet, they reduce measurable volumes of pollutants, such as ozone, carbon monoxide, sulfur dioxide, airborne particles and heavy metals.
- Other positive impacts from more bicycling and walking include decreased noise levels in neighborhoods, improved water quality through less hazardous discharges into stormwater drains, rivers and lakes.
- Trails and greenways also provide important connections for wildlife between more

fragmented habitats, and thus help protect threatened or endangered species.

Result: Environmental protection and quality of life go hand in hand, and by investing in better bicycling and walking opportunities throughout Horry County both will be improved.

Transportation Benefits:

- In 2001, the National Household Travel Survey (NHTS) found that roughly 40% of all trips taken by car are less than 2 miles. By taking these short trips on a bicycle or by foot rather than in a car, citizens in many parts of Horry County could positively impact local traffic and congestion levels.
- Many people do not have access to a car, or do not have a driver's license. An improved bicycle and pedestrian trails network provides greater and safer mobility for all residents.
- By providing transportation alternatives through better bicycling and pedestrian facilities, less public funding would have to go towards costly roadway improvement projects that may not be necessary in the first place if more people could ride their bikes or walk safely.

Result: Availability of travel by bicycle or by foot provides much needed alternative transportation choices and congestion relief, especially on short trips.

Establishing a Sense of Community and Improving Quality of Life:

- Both the sense of a community and good quality of life have traditionally been determined through hard factors, such as a good school system, job opportunities as well as shopping opportunities and affordable housing. Increasingly citizens and especially retiring baby-boomers are looking at the presence of soft factors in a community, such as walkability, availability of recreational facilities, opportunities for community interaction, greenways, trails and bikeways.
- Communities that provide for such amenities will be successful in holding their property values, their desirability and will ultimately attract new businesses and residents that desire these amenities.
- Bicycling and walking facilities create a sense of place through social interactions which are crucial in establishing a sense of community.

Result: Establishing a sense of community and maintaining or even enhancing the quality of life can be fundamentally achieved by investing in better bicycle and pedestrian trails and connections.

BECOMING A BICYCLE- AND WALK-FRIENDLY COMMUNITY

As a major national advocacy group, the League of American Bicyclists (LAB) refers to the "Five E's" as a well-proven strategy to make communities more bike (and walk) friendly. **The Five E's** stand for: **1) Engineering**, **2) Education**, **3) Encouragement**, **4) Enforcement** and **5) Evaluation and Planning**. Communities who officially want to be acknowledged as "Bicycle Friendly Communities" through the LAB need to demonstrate achievements in each of the Five E's:

- **Engineering**

Becoming bike and pedestrian friendly requires on-the-ground improvements in the form of on-road and off-road facilities such as bike lanes and multi-purpose paths, and also includes safe crossings and connections to existing facilities like neighborhood sidewalks and regional greenways. Better engineering also includes bike parking facilities such as bike racks as well as better signage and lighting.

- **Education**

Education involves teaching cyclists of all ages how to ride safely amongst motorized members of the traveling public. It also includes teaching motorists how to share the road safely with cyclists. Working with Horry County Schools, the Horry County Police Department, community instructors and bicycle advocacy groups is essential. Education activities are supported by distributing on-the-ground information, such as safe travel tip sheets, area bicycle and walking maps and providing for safe bike-riding and traffic rule classes. South Carolina is one of 33 states in the Country with a Share-the-Road public safety campaign, and one of 43 states with information about bicycling in the State's Driver's Manual. Also, South Carolina is one of 23 states that include questions about bicycling on the driver's test. The Palmetto Cycling Coalition is an important leader in South Carolina for advocacy and education for cycling.

- **Encouragement**

Encouraging and promoting bicycling and walking can be accomplished through measures like "Bike Month" or "Bike to Work" events as well as passing out community bikeways and walkways maps, sponsoring better route finding signage, organizing community bike rides, initiating private commuter incentive programs and pursuing "Safe Routes to School" programs. Another good promotional tool could be the creation of a Horry County Bicycling and Walking Information website, brochure or other social media page maintained by a local civic group or private enterprise.

- **Enforcement**

Establishing bicycle and walking friendly communities will also be dependent on partnering

with Law Enforcement agencies to ensure that bicyclists and walkers are able to travel safely. This could be accomplished either through the possible creation of a bicycle police patrol unit or through other targeted enforcement strategies that would ensure cyclists, walkers and motorists comply with established safety and "share the road" laws.

- **Evaluation and Planning**

After implementing programs and building connections, the community must regularly evaluate usage patterns and infrastructural needs to continuously add to a successful trails network. Specifically, measuring the number of cyclists and walkers as well as analyzing potential accident figures between cyclists, pedestrians and motorists would give feedback to what kind of system improvements would be necessary in the future. Identifying planning goals and implementation strategies in collaboration with the residents of the community is also very important in creating buy-in and a successful relationship amongst involved stakeholders.

TYPES OF INFRASTRUCTURE

Pedestrian facilities

Pedestrian travel is provided for and encouraged through different kinds of facilities and amenities, including walkways, signalized and unsignalized crosswalks, curb ramps as well as lighting, landscaping and places to rest, e.g. benches.

The most utilized pedestrian facilities are sidewalks and multi-purpose paths.

Sidewalk:

The most common type of walkway, sidewalks usually parallel roadways. Sidewalks have a hard, smooth surface (E.g. concrete), with separation from the roadway typically consisting of a curb and/or vegetated strip.

Figure 1: ADA-compliant sidewalk; Source: Pedestrian and Bicycle Information Center

Location:	Right-of-Way	**Advantages:** High connectivity to land uses, easy to integrate into existing right-of-way
Dimensions:	Minimum 5ft. wide	
Supported Uses:	Walking, jogging	**Disadvantages:** No bicycle accommodation, limited space
Users Served:	All groups	

Multi-Purpose Path:

Multi-Purpose paths are used by various non-motorized users, including pedestrians, cyclists, inline-skaters, and runners. Multi-Use paths are typically paved (asphalt or concrete) but may also consist of an unpaved smooth surface that meets the Americans with Disabilities (ADA) standards.

Figure 2: Multi-Purpose Path; Source: Pedestrian and Bicycle Information Center

Location:	Right-of-Way	**Advantages:** High connectivity to land uses, multiple modes of transportation
Dimensions:	Minimum 10ft. wide	
Supported Uses:	Walking, jogging, skating, bicycling	**Disadvantages:** Uses additional right-of-way area
Users Served:	All groups	

Bicycle facilities

There are currently limited choices of bicycling facilities in Horry County. Other than shared roadways, some neighborhoods have built bike lanes and/or multi-purpose paths for their residents. The entire county lacks a network of bikeways that connect neighborhoods with commercial areas and other destinations.

Bikeways, as referred to by State Highway and Transportation Officials throughout the United States, are distinguished as preferential roadway treatments accommodating bicycle travel. The basic design treatments for bicycle travel on the roadway are: Shared Roadway, Shoulder Bikeway and Bike Lane. Other bicycling facilities that are separated from the roadway include: Multi-Purpose Path (see Pedestrian facilities) and Greenway.

Shared Roadway:

There are no specific bicycle standards for most shared roadways; they are simply the roads as constructed. Shared roadways function well on local streets and minor collectors as well as on low-volume rural roads and highways. Shared roadways are the most common bikeway type. In urban areas, shared roadways are most suitable on streets with low speeds – up to 25mph or less – or low traffic volumes (3,000 ADT or less). Where bicycle use or demand is potentially high, roads should be widened to include shoulder bikeways where the travel speeds and volumes are high.

Figure 3: Shared Roadway;
Source: Pedestrian and Bicycle Information Center

Location:	In travel lane	**Advantages:** High visibility from motorists
Dimensions:	14ft. wide travel lane	
Supported Uses:	Bicycling	**Disadvantages:** On grade with motor vehicles, limits young and inexperienced users.
Users Served:	Moderate to experienced cyclists	

Shoulder Bikeway:
Paved shoulders are provided on rural highways for a variety of safety, operational and maintenance reasons, e.g. motorist emergency, improved sight distance, structural pavement support. When providing shoulders for bicycle use, a minimum width of 4ft. is recommended. This allows cyclists to ride far enough from the edge of pavement to avoid debris, yet far enough from traveling vehicles to avoid conflicts.

Figure 4: Shoulder Bikeway;
Source: Pedestrian and Bicycle Information Center

Location:	Parallel to travel lane	**Advantages:** High visibility, limits conflicts with other modes of transportation
Dimensions:	Minimum of 4ft.	
Supported Uses:	Bicycling	**Disadvantages:** On grade with motor vehicles, limits young and inexperienced users; limited to roadways under 35mph
Users Served:	Moderate to experienced cyclists	

Bike Lane:
Bike lanes are provided on urban arterial and major collector streets. Bike lanes may also be provided on rural roadways near urban areas, where

Figure 5: Bike Lane;
Source: www.richmondva.wordpress.com

there is high potential for bicycle use. Bike lanes are one-way facilities that carry bicycle traffic in the same direction as adjacent motor-vehicle traffic; bike lanes should always be provided on both sides of a two-way street.

Location:	Parallel to travel lane	**Advantages:** Provides location for travel
Dimensions:	Minimum of 4ft.	
Supported Uses:	Bicycling, walking	**Disadvantages:** On grade with motor vehicles, limits young and inexperienced users.
Users Served:	Moderate to experienced cyclists	

Greenway:

Greenways provide a dedicated, paved route separate from the roadway for use by both bicyclists and pedestrians. In some locations, greenways are located on old railroad beds (often known as Rails-to-Trails conversions) or along such features as canals and utility easements. In areas where greenway facilities are appropriate, the recommended minimum width to safely accommodate for both bicyclists and pedestrians is 10 feet. Paths with a heavy volume of users should be between 12 and 14 feet wide and should be striped to designate lanes for bicyclists and pedestrians.

Figure 6: Greenway;
Source: Cycling Underground

Location:	Off-road	**Advantages:** Multiple modes of transportation, expands connectivity beyond road, provides recreational benefit
Dimensions:	Minimum of 10ft. wide	
Supported Uses:	Walking, jogging, skating, bicycling	**Disadvantages:** Land acquisition, public opposition
Users Served:	All groups	

Bicycle parking

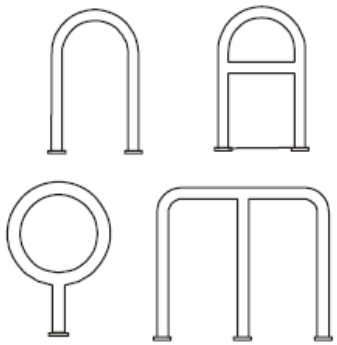
For a bikeway network to function to its full potential, secure bicycle parking should be provided at likely destination points. Bicycle thefts are common and lack of secure parking is often cited as a reason people hesitate to ride a bicycle to certain destinations. The same consideration should be given to bicyclists as to motorists, who expect convenient and secure parking at all destinations.

Bicycle parking can be provided using three types of devices:

1. **Bicycle racks**: These are open-air devices to which a bicycle is locked and which work well for short-term parking;
2. **Bicycle lockers**: These are stand-alone enclosures designed to hold one bicycle per unit and are a good choice at sites that require long-term parking for a variety of potential users;
3. **Bicycle lock-ups**: These are site-built secure enclosures that hold one or more bicycles and are often used for long-term parking for a limited number of regular and trustworthy users.

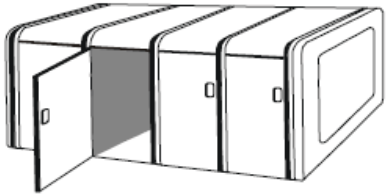
Bicycle racks are the most common type of short-term parking facility for bikes. Bicycle racks must be designed so that they:

- Do not bend wheels or damage other bicycle parts;
- Accommodate the high security U-shaped bike locks;
- Accommodate locks securing the frame and both wheels;
- Do not trip pedestrians;
- Are covered for where users will leave their bikes for a long period of time; and
- Are easily accessible from the street but are protected from motor vehicles.



Bicycle Racks

Figure 8: Bike Lockers;
Source: Association of Pedestrian and Bicycle Professionals



Bicycle Locker

Figure 7: Recommended types of bicycle racks;
Source: Association of Pedestrian and Bicycle Professionals

FINANCIAL RESOURCES AND FUNDING OVERVIEW

Bicycle and pedestrian facilities are both recreational and transportation-related in nature. Thus, funding for building, expanding or improving such facilities comes from exactly these two pots of money. When looking at the most significant sources of funding, all levels of government as well as private sources come into play.

Federal Transportation Funding

On July 6, 2012 a new Federal Transportation Act, called "Moving Ahead for Progress in the 21st Century (MAP-21)" was signed, replacing the "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)" from 2005. Whereas the SAFETEA-LU Act had a budget of $286.4 billion to spend on interstate highways, freight and passenger rail, public transit as well as bicycle and pedestrian facilities over a 4-year span, the new MAP-21 transportation act will have $105 billion available for fiscal years (FY) 2013 and 2014. Although overall transportation funding has not changed significantly, MAP-21 includes many significant reforms, including bicycle and pedestrian funding. Previously, most money dedicated to bicycle and pedestrian projects came from the following three federal program sources: Transportation Enhancements (TE), Recreational Trails Program (RTP) and the Safe Routes to School Program (SR2S). Instead of the just mentioned three programs, the new MAP-21 Act has bundled all funding into the new Transportation Alternatives Program (TA). Nationwide two percent (2%) of funds are set aside for TA, and States are required to sub-allocate such funding to the existing Metropolitan Planning Organizations (MPO) with populations larger than 200,000 and distribute the remainder of funding as a discretionary grant program. In South Carolina, federal funding has been and continues to be administered through the South Carolina Department of Transportation (SCDOT) and within the urbanized areas then primarily through the existing MPOs. In eastern Horry County, the Grand Strand Area Transportation Study (GSATS) is the main administrator of federal transportation alternatives (TA) monies. Although the Recreational Trails and Safe Routes to School programs were eliminated as separate programs, TA funding will continue to support the development of facilities for the use of pedestrians and bicyclists as well for public educational, promotional and safety programs for using such alternative transportation facilities.

Other Federal and State Funding Sources

Traditionally, most federally funded programs have been administered through respective State agencies and departments, who then disburse any available funding to regional and local governments. Regarding

bicycle and pedestrian funding, the biggest portion of funding from the Federal Transportation Act (MAP-21) will continue to be disbursed through SCDOT and the Metropolitan Planning Organizations, in our case GSATS. Other government funding sources which are implemented in a similar fashion as the new Transportation Alternatives Program (MAP-21) are:

Community Development Block Grants

The Community Development Block Grant Program (CDBG) was first introduced by the U.S. Department of Housing and Urban Development (HUD) in 1974. The CDBG program funds projects and programs that develop viable urban communities by providing decent housing and a suitable living environment and by expanding economic opportunities, principally for persons of low and moderate income. Among such activities as acquiring real property, building public facilities and improvements such as water, sewer and streets, CDBG grantees may also use funds for sidewalks and recreational facilities, including bike trails. The State of South Carolina makes funds available to eligible agencies (cities and counties). The Horry County Community Development Office is the designated CDBG grantee for all organizations and jurisdictions within Horry County.

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) is a federally funded program by the National Park Service (NPS) that provides reimbursable grants for planning and acquiring outdoor recreation areas and facilities, including trails. The LWCF is administered in South Carolina by the Department of Parks, Recreation and Tourism (SCPRT). The fund has been reauthorized until 2015 on a bi-annual grant cycle. Cities, counties, and districts authorized to acquire, develop, operate, and maintain park and recreation facilities are eligible to apply. Applicants must fund the entire project in advance, and will be reimbursed for 50 percent of costs. Property acquired or developed under the program must be retained in perpetuity for public recreational use.

The Rivers, Trails, and Conservation Assistance Program

The Rivers, Trails, and Conservation Assistance Program (RTCA) is a National Park Service (NPS) program which provides technical assistance via direct 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 that include conserving significant community resources, fostering cooperation between agencies, serving large number of users, encouraging public involvement in planning and implementation, and focusing on lasting accomplishments.

South Carolina Transportation Infrastructure Bank

The South Carolina Transportation Infrastructure Bank (SCTIB) is a statewide revolving loan fund that was created by Act Number 148 in 1997 to assist major transportation projects in excess of $100 million in value. Funded projects must provide public benefit in one or more of the following areas: enhancement of mobility and safety; promotion of economic development; and/or enhancement of quality of life and general welfare. Since its inception, the STIB has approved more than $4.5 billion in financial assistance and is arguably the largest and most active State Infrastructure Bank in the country.

Local Funding Sources

Next to federally-funded programs that are either administered and/or complemented by the States, local jurisdictions have a slew of attractive funding tools available that would help finance the establishment of a comprehensive bicycle and pedestrian network.

Gas tax funds

As required by State Law, the Horry County Transportation Committee (CTC) has the authority to disburse of "C funds" which are excess gas tax funds that donor counties get back from the State Highway Fund. The Horry County Transportation Committee has the sole responsibility to decide how to authorize expenditures of C funds. Historically, the committee has chosen to allocate a minimum of $500,000 per year towards the County's road plan. But such funds can also be used towards improving bicycle and pedestrian infrastructure if requested.

Transportation User Fees

Transportation user fees are any group of additional fees that could be used to fund maintenance and improvement projects for non-motorized uses, such as bikeways and sidewalks. Currently, Horry County already imposes similar fees, e.g. a Road Maintenance Fee, a Hospitality Fee or a Stormwater Fee that partially fund the local road improvement program. If politically and publically supported, either existing fee revenue or new alternative transportation infrastructure fees could be introduced to fund bicycle and pedestrian infrastructure network improvements.

Local Bond Measure

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 right-of-way acquisition, engineering, design and construction of pedestrian and bicycle facilities. A bond in Denver, Colorado funded $5 million for trail development and also funded the city's bike planner for several years. The City of Albuquerque, New Mexico and Bernalillo County have a 5 percent (5%) set-a-side of street bond funds for trails and bikeways. This has

amounted to approximately $1.2 million for the City every two years.

Capital Projects Sales Tax

Similar to the "Riding on a Penny" Capital Projects Sales Tax of 1 percent (1%) that was referendum-approved and introduced in Horry County in 2006 to finance local road improvements, a similar sales tax could also fund bicycle and pedestrian projects. The City of Colorado Springs, CO implemented a 0.1 percent (0.1 %) sales tax for TOPS (Trails, Open Space and Parks) that generated about $6 million annually for trails, open space and parks.

Local Improvement Districts

Local Improvement Districts (LID) 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 property owners within a specific area. The cost can be allocated based on property frontage or other methods such as trip generation, square footage or property value.

Business Improvement Area

Pedestrian and bicycle improvements can often be included as part of larger efforts aimed at business improvement and retail district beautification. Business Improvement Areas (BIA) 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, such as wider sidewalks, landscaping and ADA compliance.

Tax Increment Financing

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

Developer Impact Fees

Impact fees 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- and off-site bike and pedestrian facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is necessary in order to use this type of funding.

Private Funding Sources

With the dwindling availability of public resources for bicycle and pedestrian projects, it is important to

consider private funding resources. These are usually made up of foundations and other private organizations that support alternative transportation, specifically bicycling and walking, by health related groups or by entities that have an environmental agenda. There are also those sources that promote public participation and volunteerism.

Bikes Belong Grant

Bikes Belong is an organization sponsored by bicycle manufacturers with the intent to increase bicycle riding in the United States. Currently, Bikes Belong offers three types of grant programs:

- The REI Grant Program supports the Bicycling Design Best Practices Program by offering funding to cities whose leaders have participated in Best Practices workshops and study tours;
- The Paul David Clark Bicycling Safety Fund is geared toward advocacy efforts to improve bicycling safety;
- Bikes Belong Research Grants primarily fund studies that examine the economic impact of bicycling in a neighborhood, city, county or state.

Bikes Belong also provides financial and administrative support for the "Safe Routes to School National Partnership", a growing network of more than 500 non-profit organizations, government agencies, schools and professionals that is leading the national efforts to promote safe walking and bicycling to and from schools, and in everyday life, to improve the health and well-being of America's children and to foster the creation of livable, sustainable communities (Bikes Belong website; URL: http://www.bikesbelong.org; July 20, 2012).

International Mountain Biking Association Grants

The International Mountain Biking Association (IMBA) together with other (mountain) bicycling organizations and bicycling retail partners, offer several grants that support trail-building and maintenance, not just for mountain-biking. For more information on current grant opportunities, go to: http://www.imba.com/resources/grants

Alliance for Biking and Walking

The Alliance for Biking and Walking is North America's coalition of local and state bicycle and pedestrian advocacy organizations. Next to hosting a cornucopia of research topics in their online library, the association's website (www.peoplepoweredmovement.org) also contains a collection of current grant opportunities.

Robert Wood Johnson Foundation Grants

Robert Wood Johnson Foundation (RWJF) grants are awarded to promote healthy communities and lifestyles. Most grants are awarded through Calls for Proposals for the seven program areas of RWJF. For instance, the Berkeley-Charleston-Dorchester Council of Governments was awarded a RWJF grant to complete a regional bicycle and pedestrian action

plan, and more recently, community coalitions in both Greenville and Spartanburg received grants through the "Healthy Kids, Healthy Communities" grant initiative.

Volunteer and Public Private Partnerships

Local schools or community groups may use local bikeway projects as a school project, working together with a local designer and 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 to construct and maintain the facility.

Land Trusts

Many environmental land trust organizations have raised (or helped to raise) funds to purchase land where trails are built, especially rail-trails. In South Carolina, state-wide organizations like "Palmetto Conservation Foundation" are involved in establishing Conservation Easements and building trail networks. Locally, the "Pee Dee Land Trust" is a good local partner that may help implement local greenways and trails.

INTRODUCTION

Since its inception as a Master-planned community in the late 1990s, Carolina Forest is one of the most populous and fastest growing communities in unincorporated Horry County. Geographically, the Carolina Forest community is roughly 15 square miles and is comprised of currently twenty-six major residential subdivisions located between Town Centre Parkway and International Drive at its southeast corner and stretching to Gardner Lacy Road to the northwest. The main arterial road that connects both ends of Carolina Forest is Carolina Forest Boulevard, which is roughly 6.5 miles long.

According to U.S. Census data, this area's population in 2010 was 17,373. That is an increase of 14,035 people or +420% between 2000 and 2010. If Carolina Forest were an incorporated city, it would be the second-largest municipality in Horry County (behind Myrtle Beach).

The Development Agreement for Carolina Forest was adopted by Horry County Council in 1997, in a time when development started to skyrocket, especially in the unincorporated areas closest to the beaches. Both, the Carolina Forest Development Agreement and Development Guidelines in Exhibit B, mentioned bikeways and sidewalks to be encourage in this community. The Development Agreement states: "The Carolina Forest Development Plan will encourage a plan for the accommodation of bicycle traffic on the Development's road system. The plan should attempt to include a variety of structural improvements to make biking safe and easy for commuters and recreational bikers" (Carolina Forest Development Agreement, Section 3 - Infrastructure Services, Subsection E).

The more specific Development Guidelines note under Section IV. Subdivision Design Items: "Carolina Forest is intended to be a sidewalked community. Sidewalks along all streets are encouraged. In addition, each developer shall link sidewalks with adjacent features such as schools, parks, etc. Sidewalks shall be a compatible use within the 75' buffer along the Carolina Forest Boulevard. (…) Bike, jogging and walking paths are encouraged for those communities bordering major open space preserve areas. Paths adjacent to these areas are encouraged. This will allow all neighborhood residents to enjoy the "forest" atmosphere."

EXISTING CONDITIONS AND CHALLENGES

Despite its rapid population increases, most development has occurred in a mostly auto-oriented way that requires residents to depend on cars for any kind of traveling, being it short- or longer distance. With only some of the residential neighborhoods having built sidewalks, the overall lack of connectivity between adjacent communities as well as the overall lack of alternative transportation choices like biking and walking, have resulted in growing traffic volumes and congestion along Carolina Forest Boulevard.

Although the Carolina Forest Development Agreement encouraged bikeways and sidewalks to be built for both commuting and recreational purposes, previously existing Horry County Land Development Regulations did not require substantial investments into bicycle paths and/or walkways by developers, if they chose not to.

Existing Challenges: The Pedestrian Network

A. <u>Fragmented Sidewalk Network</u>

The Existing Sidewalks Maps show that only some of the twenty-six subdivisions in Carolina Forest have sidewalks within their boundaries. Some of these residential sidewalk networks do not even include all streets within the subdivisions, only portions (in some cases only in front of common grounds, amenity centers, pools or playgrounds). Either partial or complete, most of these individual sidewalk networks only connect residential streets within that specific community, but do not offer interconnectivity to neighboring subdivisions. Only in the case of the "Walkers Woods" community, has the developer put in a narrow version of a multi-purpose pathway parallel to Carolina Forest Boulevard. That path, as attractive as it is to pedestrians and cyclists, ends at the boundary of "Walkers Woods". A dirt path connects to a sidewalk that loops around the apartment communities of "The Cloisters" and "Turnberry Park".

B. <u>General barriers</u>

Substantial barriers have impacted further development of sidewalks between the individual communities and major destination points, including:

- <u>Open stormwater drainage ditches</u> along Carolina Forest Boulevard and in between subdivisions make it difficult and expensive to cross with new sidewalks.
- <u>Traffic volume and lack of (signalized) crossings</u> – With an Average Annual Daily Traffic (ADT) volume of approximately 20,000 automobile trips on Carolina Forest Boulevard, there currently only exist plans to widen the road without accommodating signalized crossings or even unsignalized crosswalks between either side of this boulevard.

C. Difficult crossings

Despite the presence of one signalized crosswalk between the "Canterbury" apartment complex and Carolina Forest Elementary School that was constructed as part of the Federal "Safe Routes to School" program, there is a lack of safe crossings from one side of Carolina Forest Boulevard to the other. Also, current signalized intersections near commercial nodes lack pedestrian signalization that would favor safe crossing. Even within residential subdivisions with continuous sidewalk networks, the lack of marked crosswalks does not allow for safe road crossings.

D. Limited public right-of-way and the proposed widening of Carolina Forest Boulevard

Although the County has reserved a 100 foot wide Right-of-Way for future widening of Carolina Forest Boulevard, it will be difficult to accommodate the necessary pavement width for four continuous travel lanes and separate turn lanes together with continuous bike and foot paths. Also problematic are existing open stormwater drainage ditches on either side of Carolina Forest Boulevard plus the landscaped berms around subdivisions that abut these drainage easements. In many instances this will require either expensive acquisition of more Right-of-Way, acquisition of easements or better the voluntary donation of easements from the individual communities (HOAs, POAs, etc.) to Horry County. Latter will be the most successful in working around tight spots where the widening of the road will push back drainage ditches and leave less space between them and existing landscaping buffers to accommodate for any planned bike and walking trails. A major swamp called the "Socastee Greenway" runs through Carolina Forest and functions as mitigation area for impacted wildlife that have been disturbed by various road construction projects around Carolina Forest. Any added crossings over this swamp (either for added motor vehicle lanes or bike and pedestrian paths) will need to be addressed in existing mitigation agreements, which would have to be amended to at least allow for a boardwalk or other less intrusive crossing at some point.

E. Auto-oriented Land Development and Transportation System

A fundamental challenge to both pedestrians and cyclists is the area's land use pattern and transportation network that has been designed almost exclusively around motor vehicle access. The general lack of an interconnected pathway system for both bicyclists and pedestrians prohibits access to area-wide destinations as an alternative to the car given the separation of uses and lack of emphasis on planning for multi-modalism. Further complicating the matter is future plans do not include any bike or walking paths with the proposed widening of Carolina Forest Boulevard, thus raising questions on how a continuous alternative modal network can be accommodated in future.

Existing Challenges: The Bicycle Network

Bicyclists in Carolina Forest face several challenges, as described below.

A. Fragmented and underdeveloped bicycle network

As the Existing Bicycle Facilities Maps indicate, the Carolina Forest area currently has a very limited amount of bicycle facilities. With the exception of an existing multi-use pathway in the front of the "Walkers Woods" subdivision, which can be used by cyclists and pedestrians alike, and marked bike lanes within "The Farm" subdivision, most of the area can only be traveled by bicycle by sharing Carolina Forest Boulevard with motorized vehicles.

B. Bicyclist safety

The high traffic volume of around 20,000 ADTs along Carolina Forest Boulevard as well as minimum speeds of 45 mph or higher, make this thoroughfare unsafe for bicyclists to use as a shared roadway (see description of safe speed and ADT for shared roadways above). The lack of paved shoulders, or even bike lanes, emphasizes the need for better bicyclist facilities that safely connect the individual residential subdivisions with major destinations.

C. Lack of safe crossings

Carolina Forest has mainly developed along Carolina Forest Boulevard on both the west and east side. Yet, potential bicyclists from major subdivisions on the eastside of the boulevard, e.g. "Plantation Lakes" have no means to cross safely to get to the opposite side. There is generally a lack of safe crossings in Carolina Forest that would allow bicyclists (and pedestrians) to get to destinations or facilities on the opposite side.

D. Deficiency of area-wide bicycle parking facilities

With the exception of the new Carolina Forest Library and Recreation Center, and some of the area's schools, major commercial destination points in the area are lacking attractive parking facilities for bicyclists that are safe enough to prevent theft or vandalism.

Bicyclist and Pedestrian Destinations

One of the most important considerations for planning a system of connected bicycle and pedestrian trails is the question to where these trails will lead to and connect with. Not only is it important to provide for interconnectivity between the numerous individual residential subdivisions in the community, but also to provide alternative transportation choices to popular every-day destinations. Within the Carolina Forest area, popular and potential destinations for pedestrian and bicycle use include:

- Grocery stores and shopping centers,
- Mailing/Shipping businesses, including Post Office,
- Gas stations and Convenience stores,
- Schools,
- Daycares,
- Medical Care offices,
- Parks and recreational facilities,
- Churches,
- Public library, and
- Restaurants.

Please see Map A-1 thru A-8 in Appendix A for existing bicycle and pedestrian facilities as well as area destinations in the Carolina Forest area.

Current and Future Needs

Following are needs that have been identified through current challenges described before, which by addressing would substantially help in establishing a better bicycle and pedestrian trails network and traveling environment in Carolina Forest:

A. <u>Providing attractive and safe connections for bicyclists and pedestrians</u>

Safe Bike trails and sidewalks currently only exist in a few bigger communities, e.g. Plantation Lakes, The Farm, Walkers Woods and Waterford Plantation. Despite the amenity for local residents of those aforementioned subdivisions, these localized trails and walkways do not serve a greater purpose of being part of an area-wide network of bikeways and walkways. As of today, Carolina Forest lacks significant connectivity between major residential communities, commercial areas and institutions. Multi-modal facilities are needed if Carolina Forest is to be successfully connected by bike and foot.

B. <u>Ensure that future road improvements accommodate bicycle and pedestrian travel</u>

The need for more bikeways and foot paths that connect one end of Carolina Forest to the other is apparent. With Horry County planning for necessary road widening of the boulevard to four continuous motor travel lanes, there is also an opportunity to incorporate continuous bike/pedestrian facilities. Including such improvements for all modes of

transportation within one project will add costs in the short run, but in the long run will be much more cost-effective than having to go back to plan for, engineer and construct these facilities separately. Therefore, all future road improvements should be all-inclusive in that they also consider and provide for safe bicycle and pedestrian connectivity and crossing points.

C. Need for a bicycle and pedestrian specific way-finding system

Together with the need for an interconnected bicycle and pedestrian infrastructure network comes the need for specific way-finding signage. Eye-level signage easily visible to cyclists and pedestrians alike will mark nearby destination points and indicate the distance in both miles and time for the average bicyclist and walker. The way-finding system should also indicate parking facilities and area trail maps in the form of trailside kiosks.

D. Need for regional connectivity via the East Coast Greenway

Besides the necessity of constructing a network of well-connected and safe bike trails and walkways throughout, Carolina Forest should be connected to the existing and proposed stretches of the East Coast Greenway which will eventually connect all major coastal communities from Little River to Georgetown County and beyond. In Carolina Forest the designated portion of the East Coast Greenway runs from the Intracoastal Waterway Bridge along SC31 (Carolina Bays Parkway) and along a short stretch of River Oaks Drive to Town Centre Parkway where it will eventually connect into Barefoot Community and further into North Myrtle Beach. Currently the proposed stretch in Carolina Forest has not been constructed, other than a built Multi-Purpose path along Town Centre Parkway.

Please refer to Maps C-1 thru C-3 in Appendix C for maps depicting the existing trail of the East Coast Greenway through Horry County.

RECOMMENDED BICYCLE AND PEDESTRIAN NETWORK

The Carolina Forest community has great potential to transform itself into a community where bicycling and walking as alternative modes of transportation can become popular activities. The following chapter presents recommendations that would establish a comprehensive network of bikeways and walkways connecting all neighborhoods with key destinations and the surrounding area.

The network recommendations build upon current and past planning efforts, including the Grand Strand Area Transportation Study's (GSATS) *2035 Long Range Transportation Plan* (LRTP), the *Horry County Transportation Element* as part of the Envision 2025 Comprehensive Plan for Horry County, and the *Horry County Parks and Open Space Plan*.

Within the Transportation Element of the *Envision 2025* Comprehensive Plan for Horry County, there is an emphasis on providing more alternative transportation choices by investing more in physically constructing alternative transportation infrastructure, such as bikeways and walkways, amongst others. "With many places in Horry County being accessible only by car, the greatest challenge will be to put the necessary physical infrastructure in place that will enable the citizens and visitors of Horry County to comprehensively use alternative modes of transportation" (Envision 2025, Transportation Element, page 80). At the same time, the Horry County Parks and Open Space Plan focuses on the "Green Infrastructure" concept. The heart of the "Green Infrastructure" idea is to provide for linkages that can more easily connect existing smaller neighborhood parks with larger green space areas.

In both plans, the most dominant issues are the provision of (inter-)connectivity and transportation choices, other than just the automobile.

Proposed Bicycle and Pedestrian Infrastructure Improvements

The Carolina Forest community has been divided into ten planning sections to prioritize infrastructure improvements in accordance with needs, demands, existing population, potential bicycle and foot traffic as well as estimated costs and engineering complexity (see Map B-1 in Appendix B).

The backbone of all proposed improvements will be a ten foot (10') Multi-Purpose Path that would be located on the northern side along the entire length of Carolina Forest Boulevard (also referred to as "the boulevard"), connecting the commercial area off US Highway 501 with all the major residential neighborhoods along the boulevard. In addition, major destination points, such as schools, churches and the Carolina Forest Library and Recreation

Center should be accessible by bicycle and pedestrian as well.

Sections 1A and 1B

As shown in Map B-2 in Appendix B, proposed bicycle and pedestrian improvements in Section 1A include the construction of a 10' wide Multi-Purpose Path that can be conveniently used by both cyclists and pedestrians between Carolina Forest Elementary School to the beginning of the currently existing walking path at Quinn Road (Walkers Woods subdivision). This would be the first stretch of a continuous 10' wide Multi-Purpose Path along the north side of Carolina Forest Boulevard. Also, a 10' wide Multi-Purpose Path is proposed to connect the existing sidewalk at the signalized crossing at Gateway Drive and Carolina Forest Boulevard with Schoolhouse Road, the back entrance road to Carolina Forest Elementary School from Gateway Drive. Latter would close an existing sidewalk gap between Waterford Plantation and Canterbury Apartments along Gateway Drive. Current sidewalk gaps within Spring Lake and Covington Lakes subdivisions and the planned Multi-Purpose Path along the boulevard would also have to be closed either by the respective Homeowner's Associations or Horry County. Preliminary costs, which include mobilization, traffic control, clearing and grubbing as well as eventual utility relocation and legal costs for Right-of-Way acquisition have been estimated by Horry County Engineering to be around $628,000 (including a 15% contingency and 12% engineering cost).

Section 1B, as seen in above mentioned Map B-2, includes improvements for cyclists and pedestrians from the Railroad Crossing to Postal Way via a 10' wide Multi-Purpose Path between the existing 5' wide sidewalk system around Canterbury Apartments and the Convenience Store and Gas Station at the south side of the intersection of Carolina Forest Boulevard and Postal Way. Next to the existing pedestrian push button for signalized crossing, proposed improvements would also include marking the road for a safe crossing of Carolina Forest Blvd. to the north side. Further considerations in Section 1B include a parallel 5' wide sidewalk along the north side of Carolina Forest Blvd. between Gateway Drive and Postal Way as well extending the drainage pipes underneath Carolina Forest Blvd. next to the existing railroad line to accommodate the proposed 10' width of the pathway and to address current erosion problems. Horry County engineers have estimated this section to cost approximately $324,000 (including all eventual costs as mentioned before).

Section 2

Map B-3 in Appendix B gives an overview of Section 2. Proposed improvements for cyclists, pedestrians and other types of compatible users include extending the existing path in front of Walkers Woods subdivision from its beginning at Quinn Road along the north side

of Carolina Forest Boulevard to Avalon subdivision at Stoney Falls Blvd. As mentioned in Section 1A and 1B, this would be the continuation of the 10' wide asphalt Multi-Purpose Path along the north side of Carolina Forest Boulevard. Depending on when and how Horry County will pursue with Road Widening Plans for Carolina Forest Blvd., bicycle and pedestrian improvements via the Multi-Purpose Path may have to include additional piping of open stormwater drainage in locations where not enough space between proposed pathway and open stormwater drainage, entrance features or even protected wetlands exist. Due to the lack of sufficiently reserved public Right-of-Way (ROW) for both proposed Road Widening and Bike/Pedestrian Infrastructure projects, potential ROW acquisition or the donation of easements by the adjoining Homeowner's Associations of Walkers Woods subdivision to the County for accommodation of the Multi-Purpose Path may become necessary. Cost estimates for Section 2 have been estimated to be $779,000.

Sections 3A and 3B

After focusing on the more populous "front sections" of Carolina Forest closest to the commercial node off US501 and Carolina Forest Elementary School, Sections 3A and 3B (see Map B-4 in Appendix B) jump to the back of the Carolina Forest community between the communities of "Summerlyn" and "Bellegrove Preserve". As mentioned in the Sections before, the main infrastructural component to be proposed is a 10' wide Multi-Purpose Path along the north side of Carolina Forest Boulevard. In Section 3A it runs between Stafford Drive at Summerlyn all the way to Willow Bend Drive at Bellegrove Preserve to provide for connectivity between the fast-growing and populous communities of Summerlyn, The Farm and Bellegrove Preserve, and to create connectivity to nearby destinations such as the Carolina Forest Library and Recreation Center, and the Palmetto Adventure Land playground. Together with above mentioned Road Widening plans for Carolina Forest Blvd., the juxtaposition of additional travel lanes, turn lanes and the proposed Multi-Purpose Path will shift latter into existing open stormwater drainage easements which at the location between Powder Mill Road and Mill Street (The Farm) and between Farm Lake Drive and Willow Bend Drive are so steep that sections of boardwalks would have to be constructed. Section 3A is estimated to cost approx. $1,668,000 due to the high cost of aluminum that is recommended as a material to be used for necessary boardwalks/bridges.

In Section 3B, the 10' wide Multi-Purpose Path would be extended from Willow Bend Drive to River Oaks Drive including proper marking and installation of a signalized crosswalk at the intersection of Carolina Forest Blvd. and River Oaks Drive. From there, it is proposed to have a 5' wide sidewalk be constructed on the north side of Carolina Forest Blvd. to the

entrance of the Forest Village Shopping Center, and to then shift the 5' wide sidewalk to the south side of Carolina Forest Blvd. to align with an existing stretch in front of Longbeard's Bar and Grill near that connects with already existing sidewalks along both sides of Village Center Boulevard. Section 3B cost estimates are $416,000.

Section 4

As Map B-5 in Appendix B shows, Section 4 attaches west of Section 3A and includes the construction of the continuously 10' wide Multi-Purpose Path between the east side of the Socastee Greenway crossing and "Summerlyn". It is one of the easiest achievable sections since there are no real space limitations on the north side of Carolina Forest Boulevard that could impose costly shifting or even bridging of the proposed pathway. Therefore, it is a straight shot and should be relatively easy to accommodate. The only crossings that would have to be provided for would be entrance street crossings to the specific neighborhoods along the way. This section could also be shifted towards the west to include the residential condominium community of "Carolina Willows" and the medical park, called Carolina Forest Professional Park. Engineering, possible legal fees for necessary Right-of-Way acquisition and construction costs among others are estimated to be approx. $498,000.

Section 5

The center piece of Section 5, as seen in Map B-6 in Appendix B, is the crossing of Socastee Greenway, a swamp and also dedicated Wildlife Corridor that runs through the middle of Carolina Forest. The crossing would have to be built simultaneously with the proposed Road Widening Project for Carolina Forest Boulevard to provide for the necessary base and the pilings that would support the proposed boardwalk-type bridge, preferable made of aluminum. Should the bridge be constructed before the Road Widening, the additional roadbed would have to prepared/filled-up. The Horry County Engineering Department estimates the length of the boardwalk to be approx. 1,200 linear feet between the Avalon neighborhood, west of the Socastee Greenway/Swamp, and the east side of it. Cost estimates for Section 5 run around $1,510,000 due to the long boardwalk/bridge that would be required.

Section 6

Centered in the commercial node of Carolina Forest between US 501 and Postal Way, Section 6 as shown in Map B-7 in Appendix B, includes several locations where 5' wide sidewalks are recommended. The construction of sidewalks along both sides of Postal Way from the intersection with Carolina Forest Boulevard to the current end of development as well as a sidewalk along Renee Drive from Postal Way to provide for better connectivity between Postal Way and the Kroger Shopping Center. Undetermined still are the specific locations and routes of the sidewalk

connection between the end of the Horry County Road Maintenance line at Bruster's Ice-Cream Shop and the actual Shopping Center. There are two alternatives – one has the sidewalk continue to the crossing with the access road in front of the Shopping Center or the other alternative would be to build a separate sidewalk connection around the existing stormwater retention pond. These are questions that would have to be resolved together with the owner of the Shopping Center. Excluding the latter part of discussed connectivity alternatives, the estimated cost would be $238,000.

Section 7

Ultimately, it will be the goal to also create connectivity between Carolina Forest Boulevard and Gardner Lacy Road, which is part of the Carolina Forest Community as well. The adjoining neighborhoods as well as Carolina Forest High School, as the most prominent destination, would be connected via a continuous 10' wide Multi-Purpose Path along the south side of Gardner Lacy Road, between Postal Way and its termination at Reed Brook Drive at the subdivision of "Clearpond at Myrtle Beach National" (see Map B-8 in Appendix B). Nonetheless, steep slopes at two bends with space constrictions between the roadbed and adjacent wetlands, where currently guardrails exist, create difficulties for this proposal. One solution to this problem might be the shifting from the south side to the north side of Gardner Lacy Road at those problematic locations via crosswalks, or a plan to implement the Multi-Purpose Path on the north side altogether. Depending on possible routing alternatives to avoid above mentioned trouble spots, cost estimates will vary. But as described above, estimated cost for proposed infrastructure will be at least $824,000.

Section 8

Next to Section 7, Section 8 will take lower priority over the previous sections along Carolina Forest Boulevard, where the bulk of the population and destinations are. Yet, with a viable connection along the Stormwater Drainage Canal easement that the County already maintains, a 10' wide Multi-Purpose Pathway connection could provide for the missing link between the core of Carolina Forest near the Railroad Crossing at Carolina Forest Boulevard and Gardner Lacy Road (see Map B-9 in Appendix B). It would create transportation alternatives for students and faculty staff accessing Carolina Forest High School.

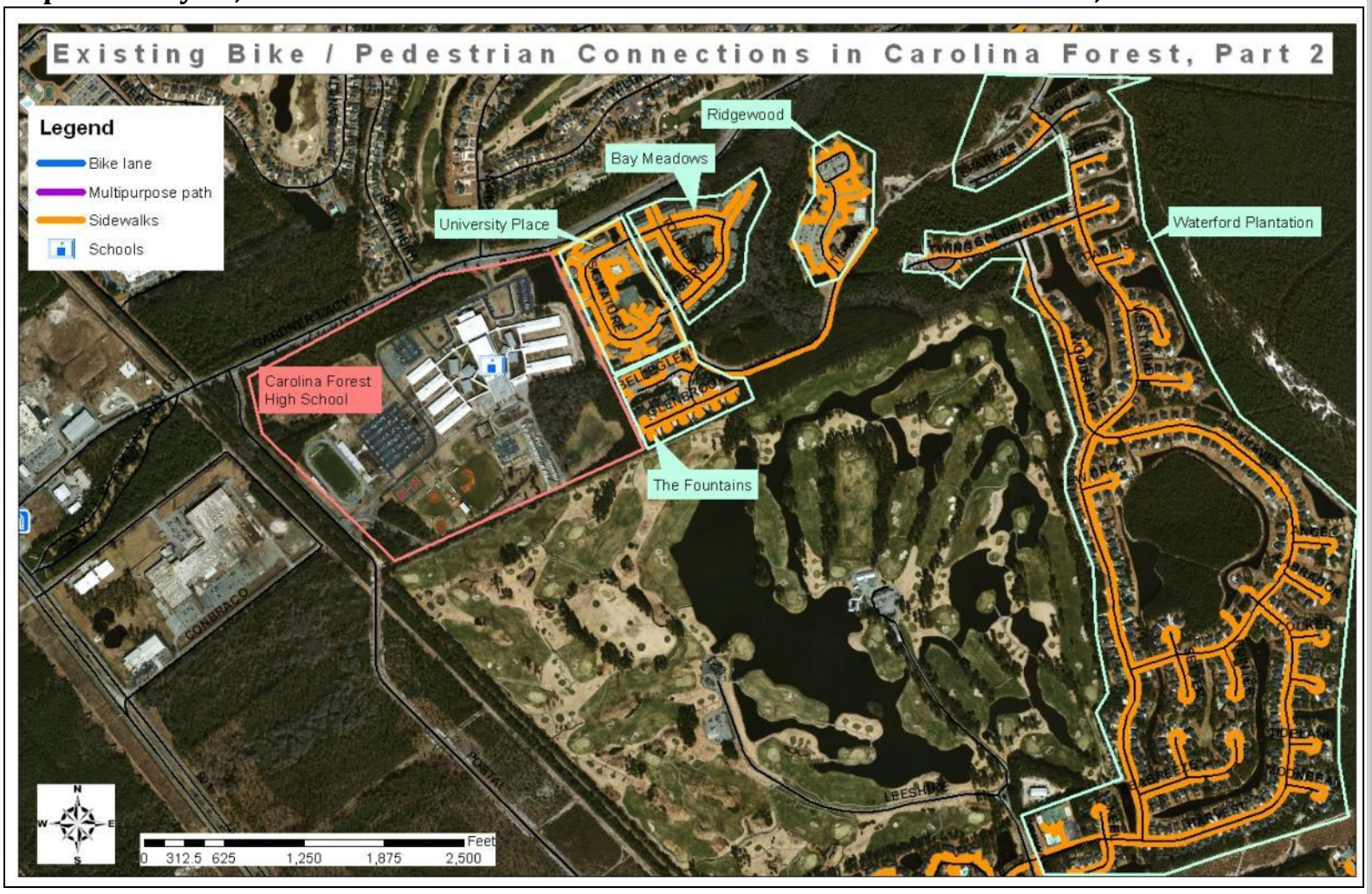
Note: The description of proposed improvements for cyclists, pedestrians and other compatible users within above sections together with their exhibited boundaries are exemplary for planning purposes. This sectioning and boundaries may be subject to change based on public involvement and preference as well as funding availability.

APPENDIX A: EXISTING CONDITIONS

Map A-1: Bicycle, Pedestrian Facilities and Area Destinations in Carolina Forest, Part 1

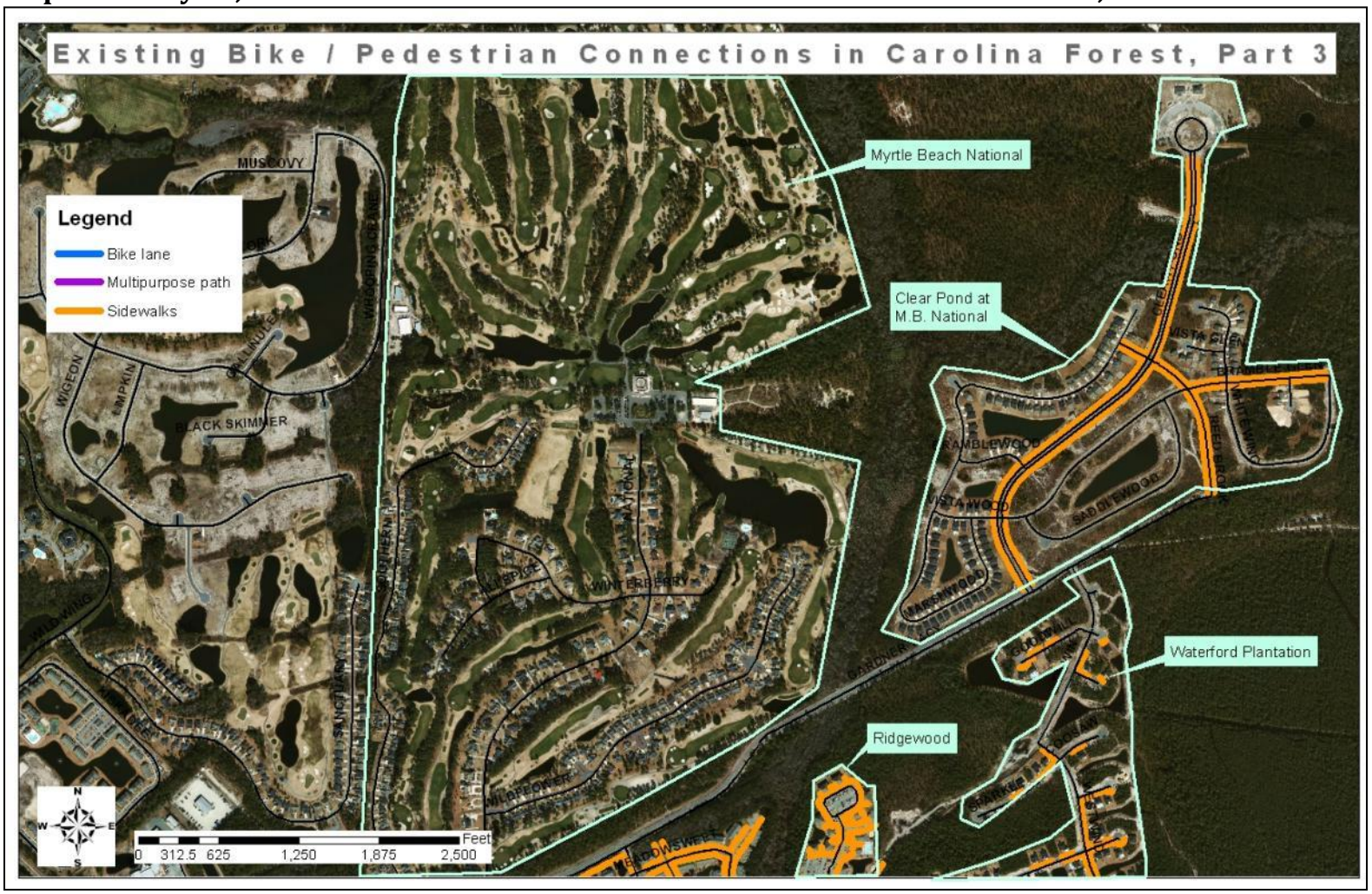
Horry County Planning & Zoning Department, 2012

Map A-2: Bicycle, Pedestrian Facilities and Area Destinations in Carolina Forest, Part 2



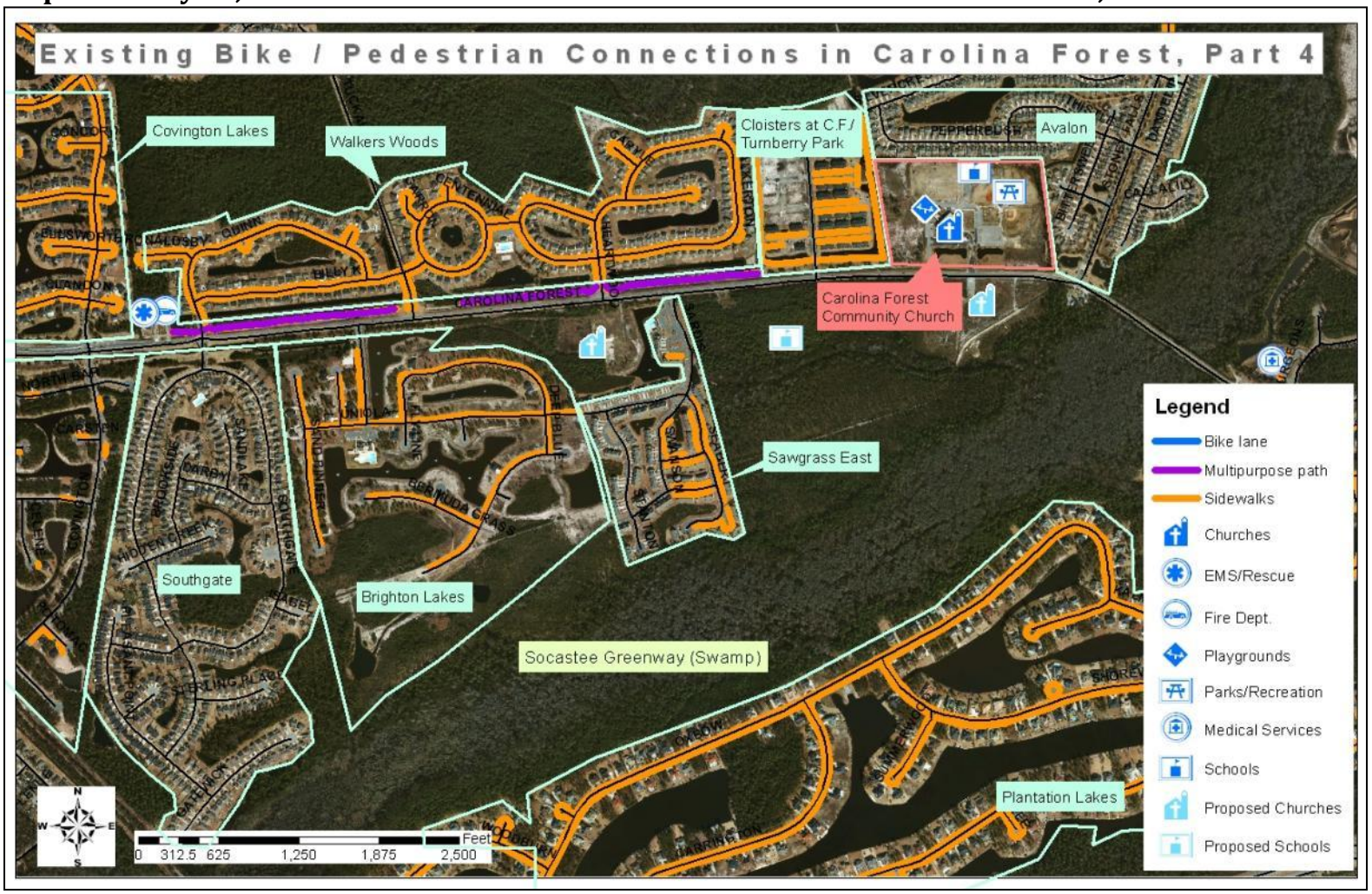
Horry County Planning & Zoning Department, 2012

Map A-3: Bicycle, Pedestrian Facilities and Area Destinations in Carolina Forest, Part 3



Horry County Planning & Zoning Department, 2012

Map A-4: Bicycle, Pedestrian Facilities and Area Destinations in Carolina Forest, Part 4

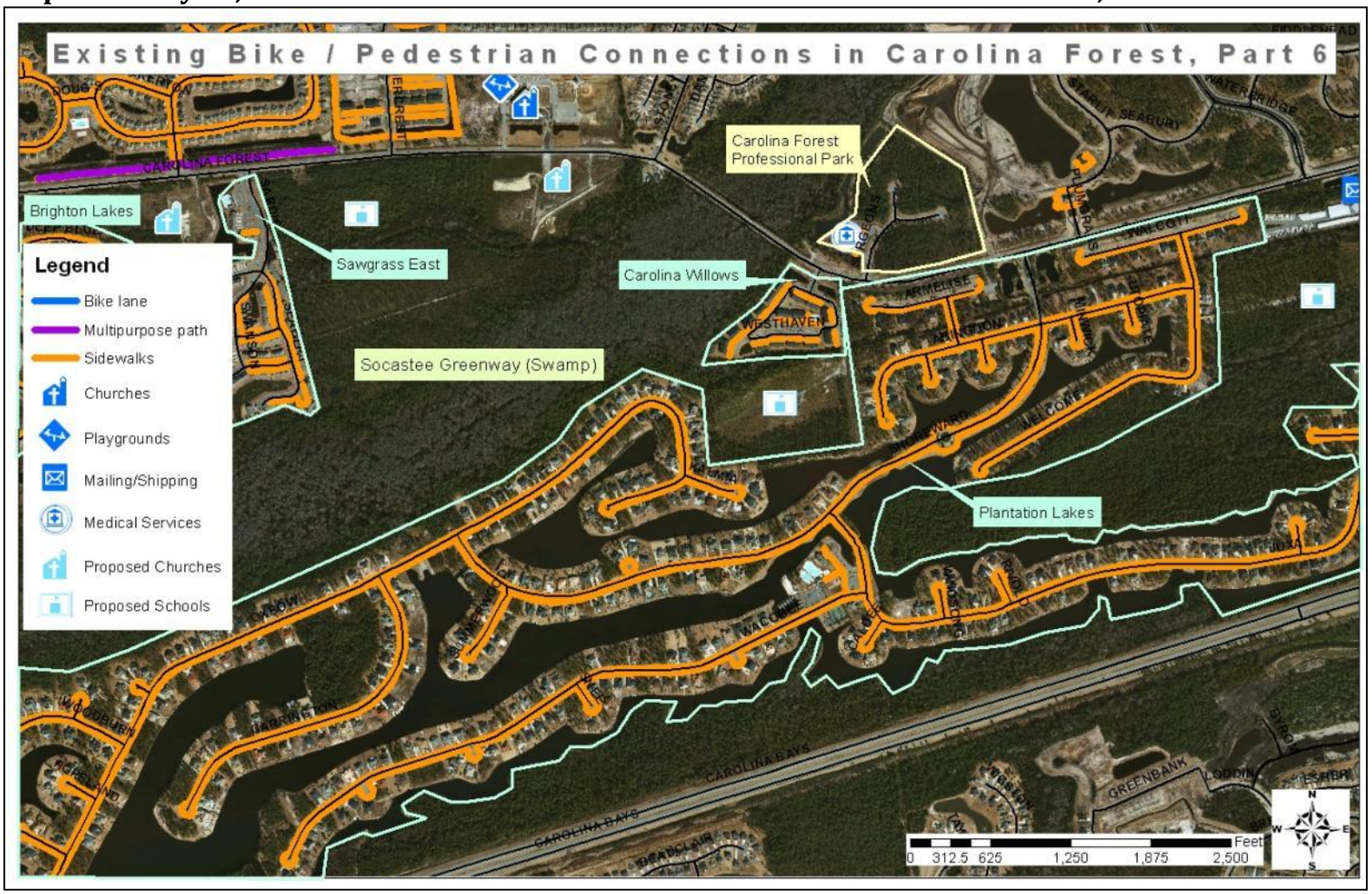


Horry County Planning & Zoning Department, 2012

Map A-5: Bicycle, Pedestrian Facilities and Area Destinations in Carolina Forest, Part 5

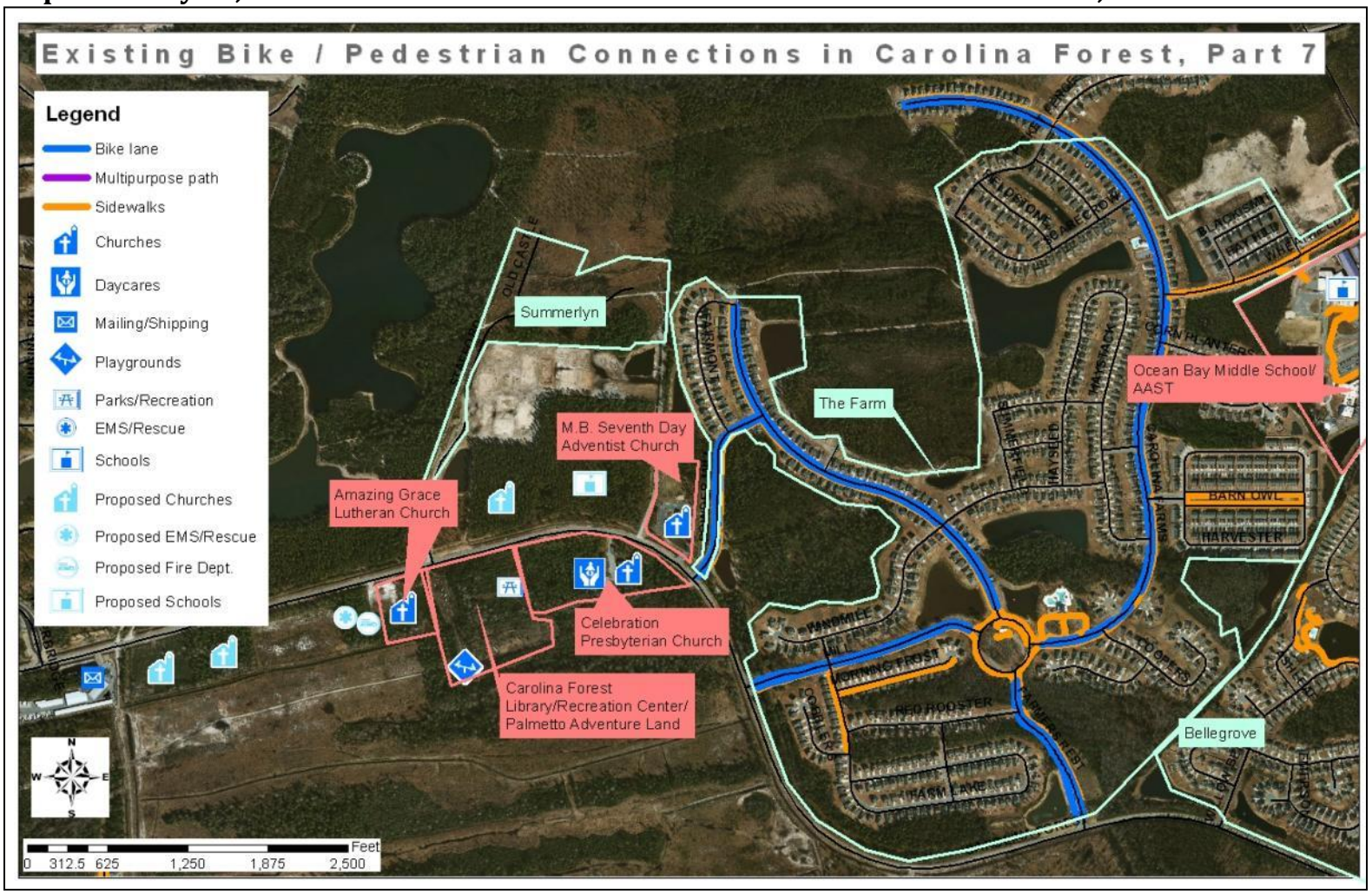
Horry County Planning & Zoning Department, 2012

Map A-6: Bicycle, Pedestrian Facilities and Area Destinations in Carolina Forest, Part 6



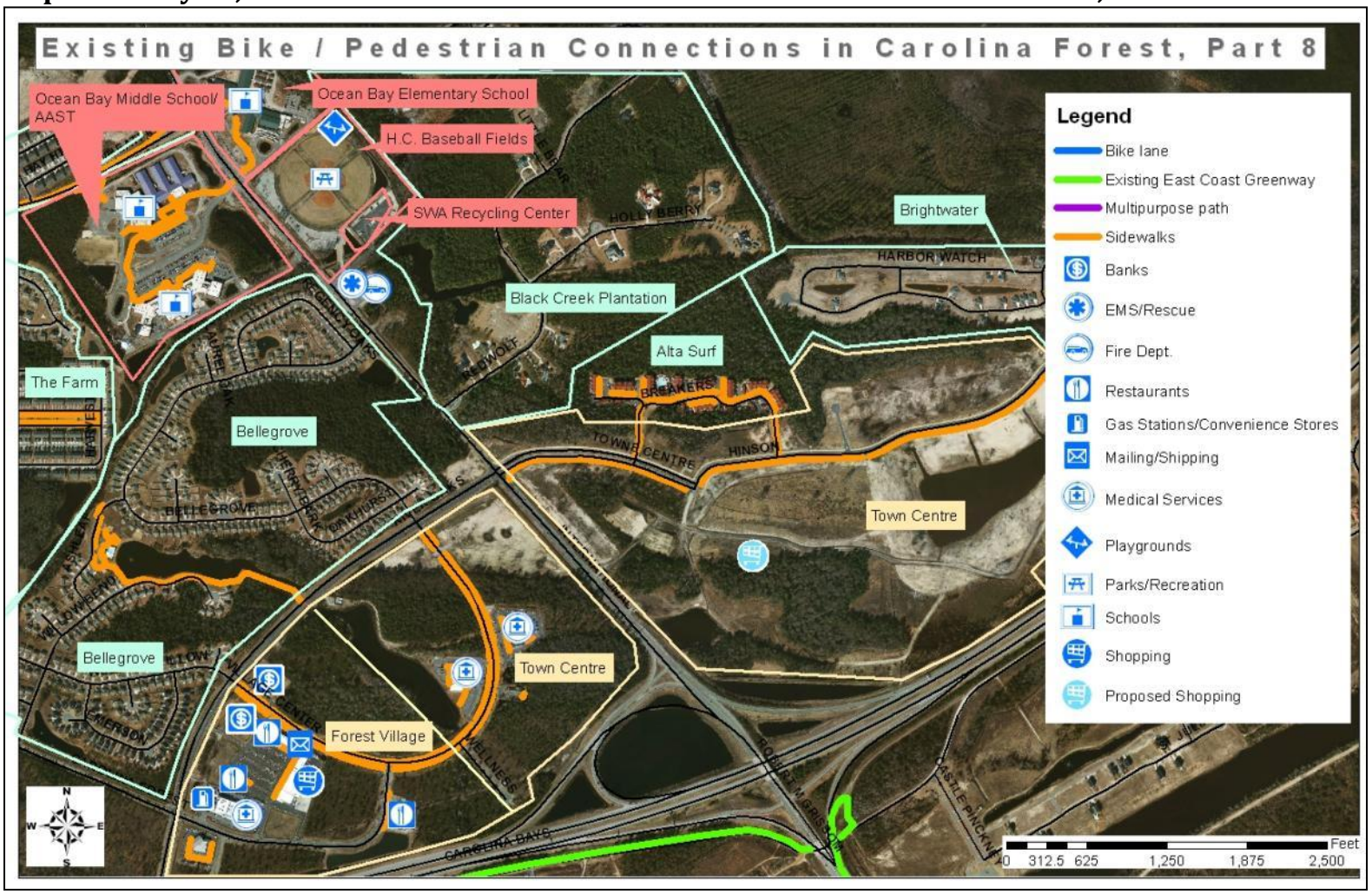
Horry County Planning & Zoning Department, 2012

Map A-7: Bicycle, Pedestrian Facilities and Area Destinations in Carolina Forest, Part 7



Horry County Planning & Zoning Department, 2012

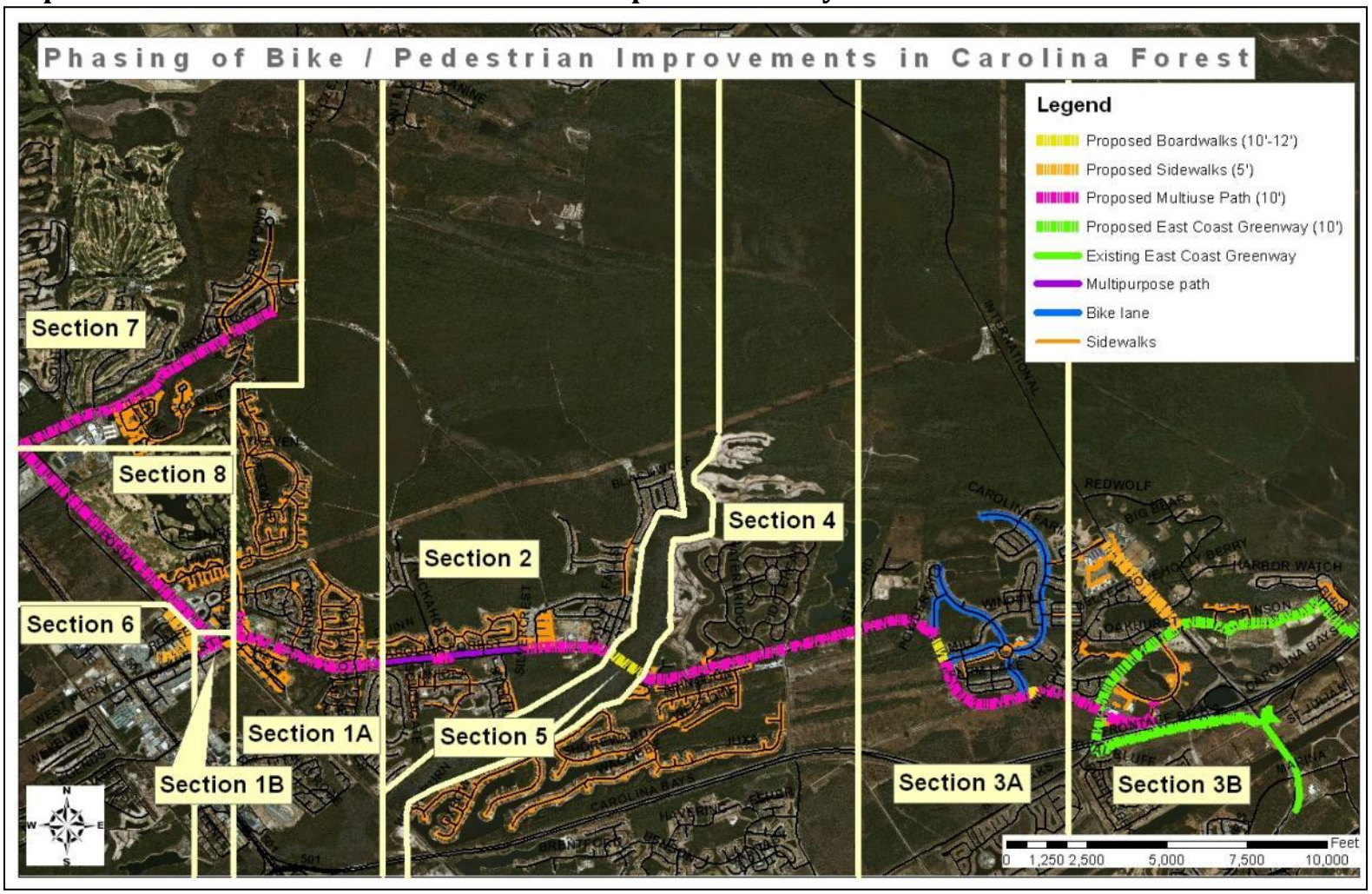
Map A-8: Bicycle, Pedestrian Facilities and Area Destinations in Carolina Forest, Part 8



Horry County Planning & Zoning Department, 2012

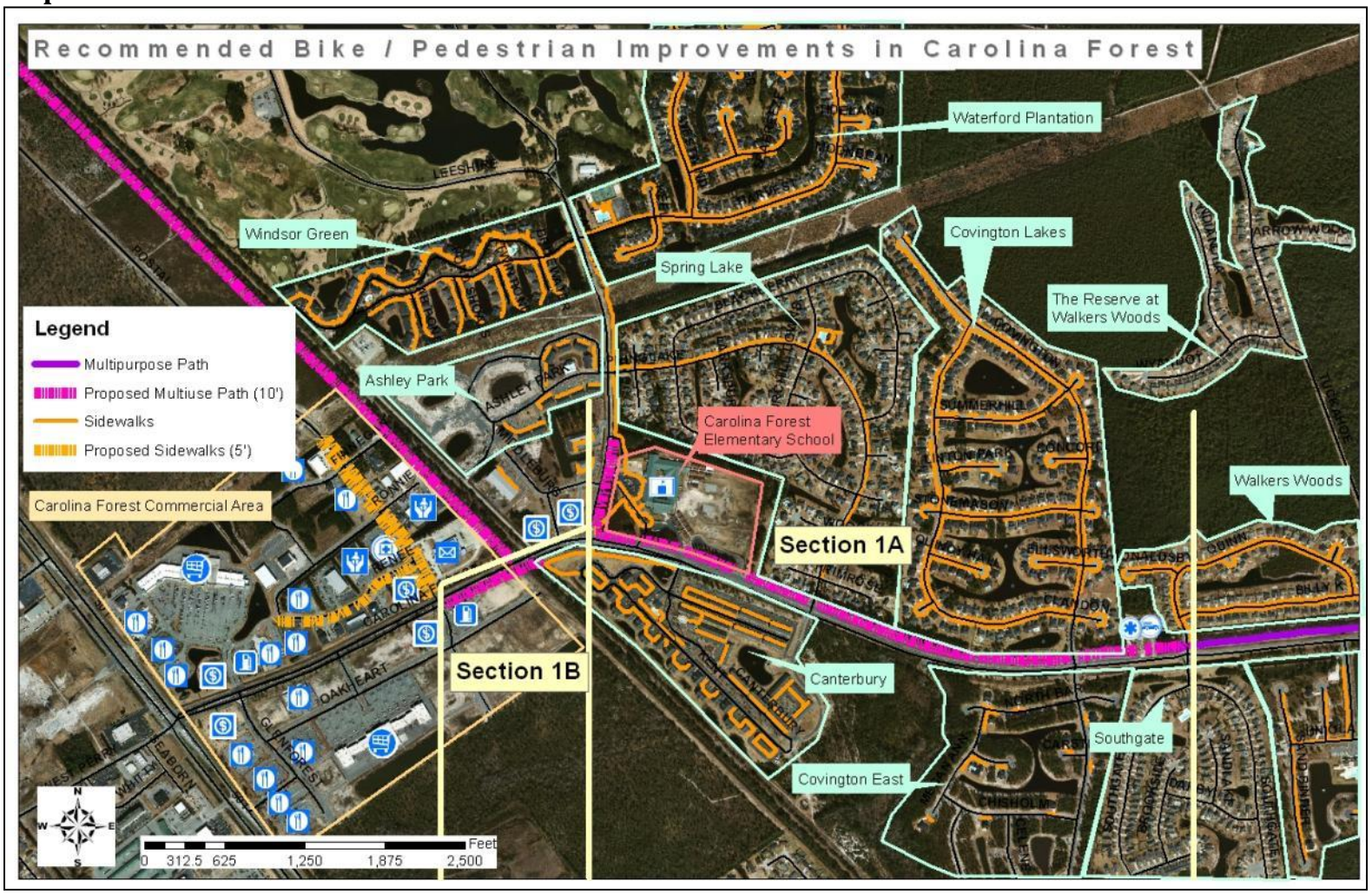
APPENDIX B: RECOMMENDED NETWORK

Map B-1: Overview of Carolina Forest Area Improvements by Sections



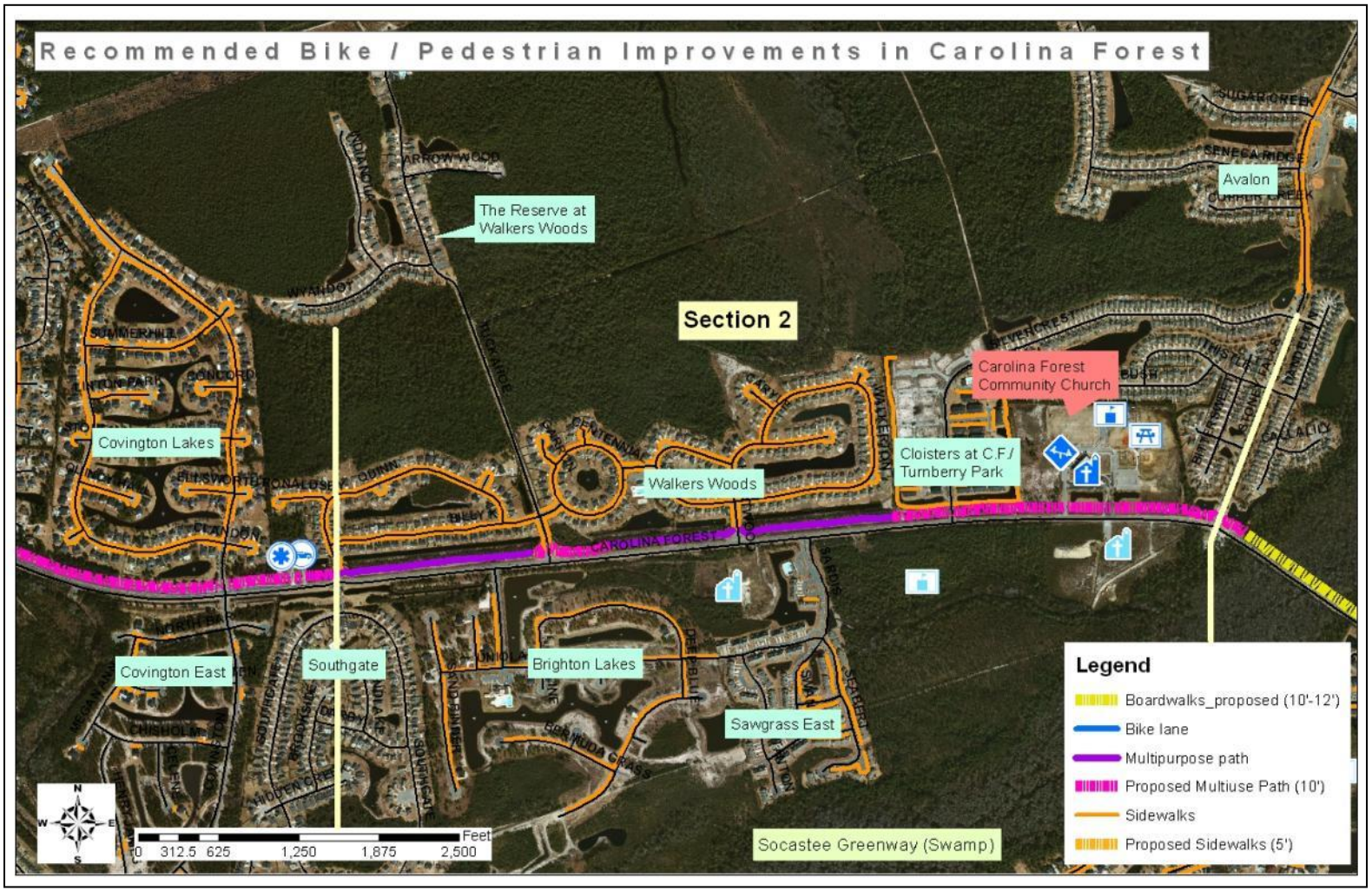
Horry County Planning & Zoning Department, 2012

Map B-2: Sections 1A and 1B



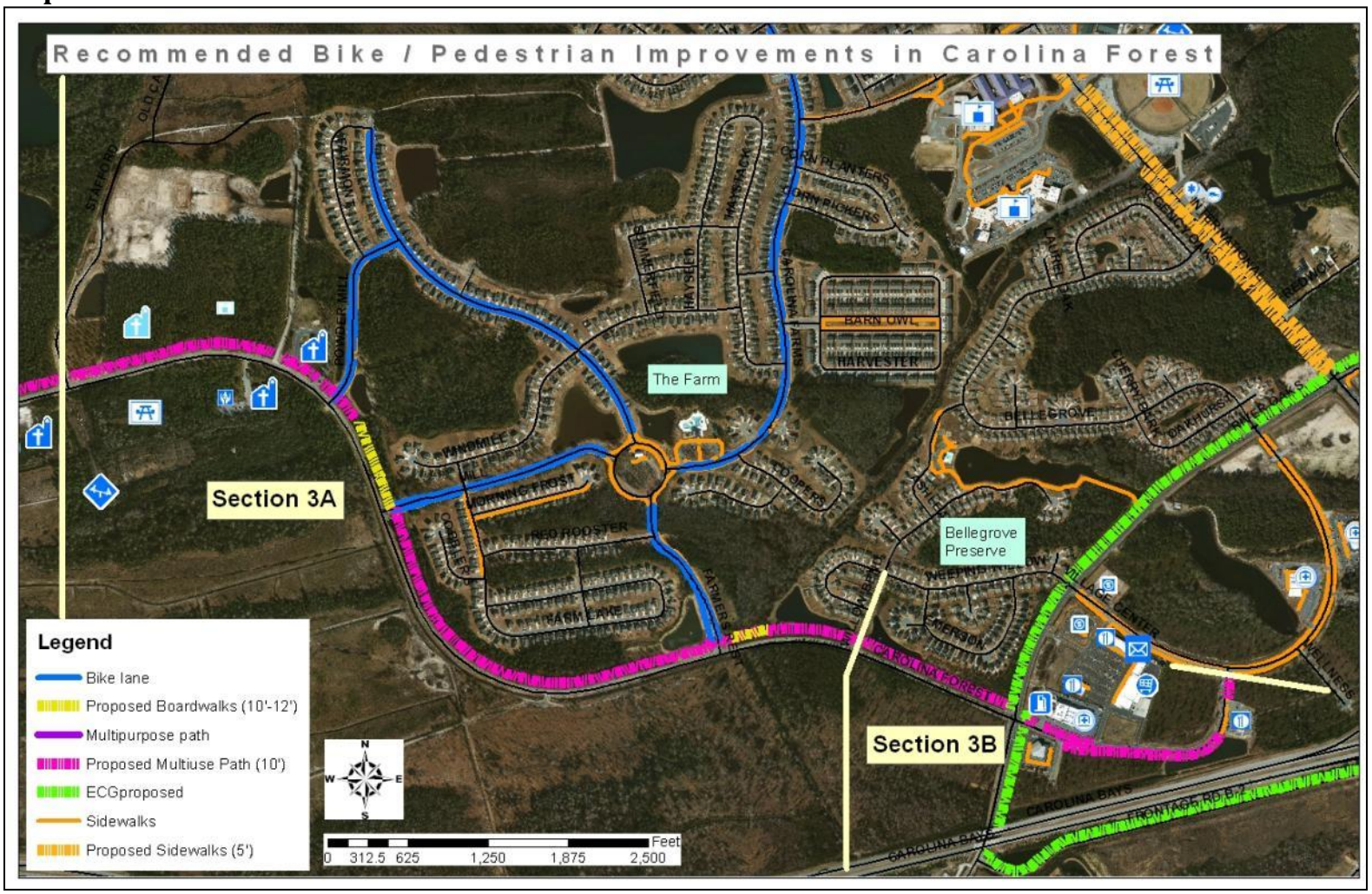
Horry County Planning & Zoning Department, 2012

Map B-3: Section 2



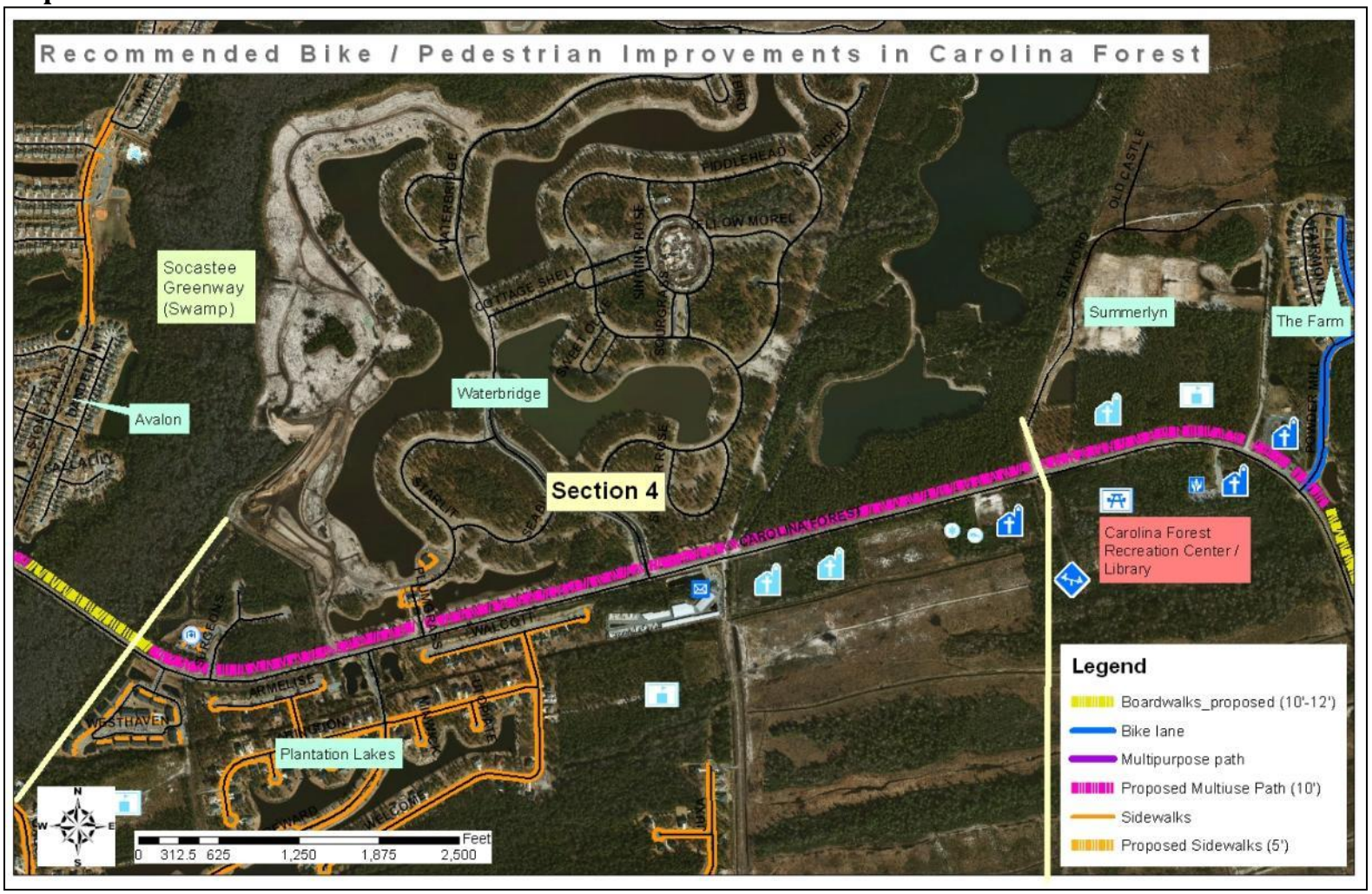
Horry County Planning & Zoning Department, 2012

Map B-4: Sections 3A and 3B



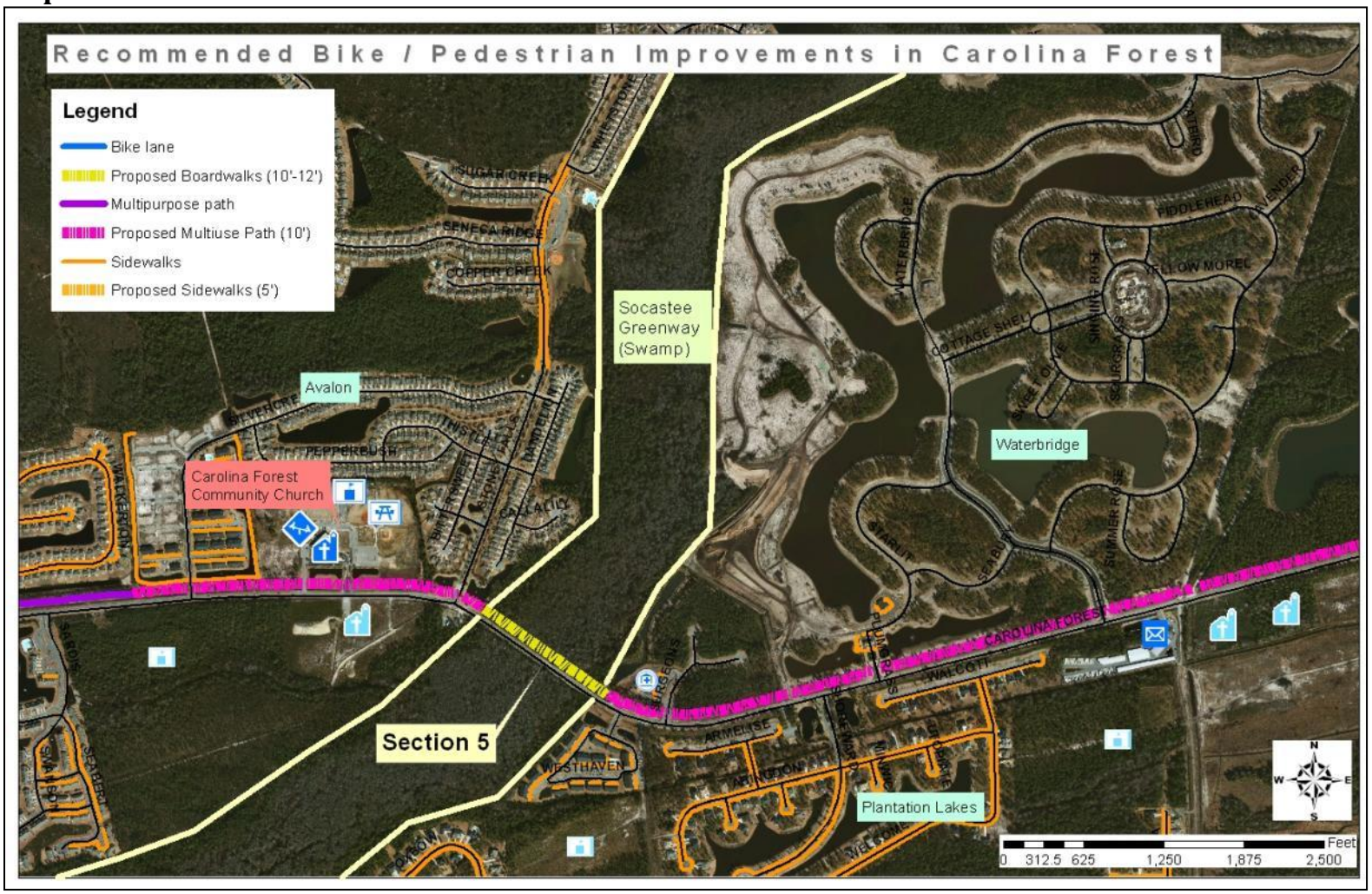
Horry County Planning & Zoning Department, 2012

Map B-5: Section 4



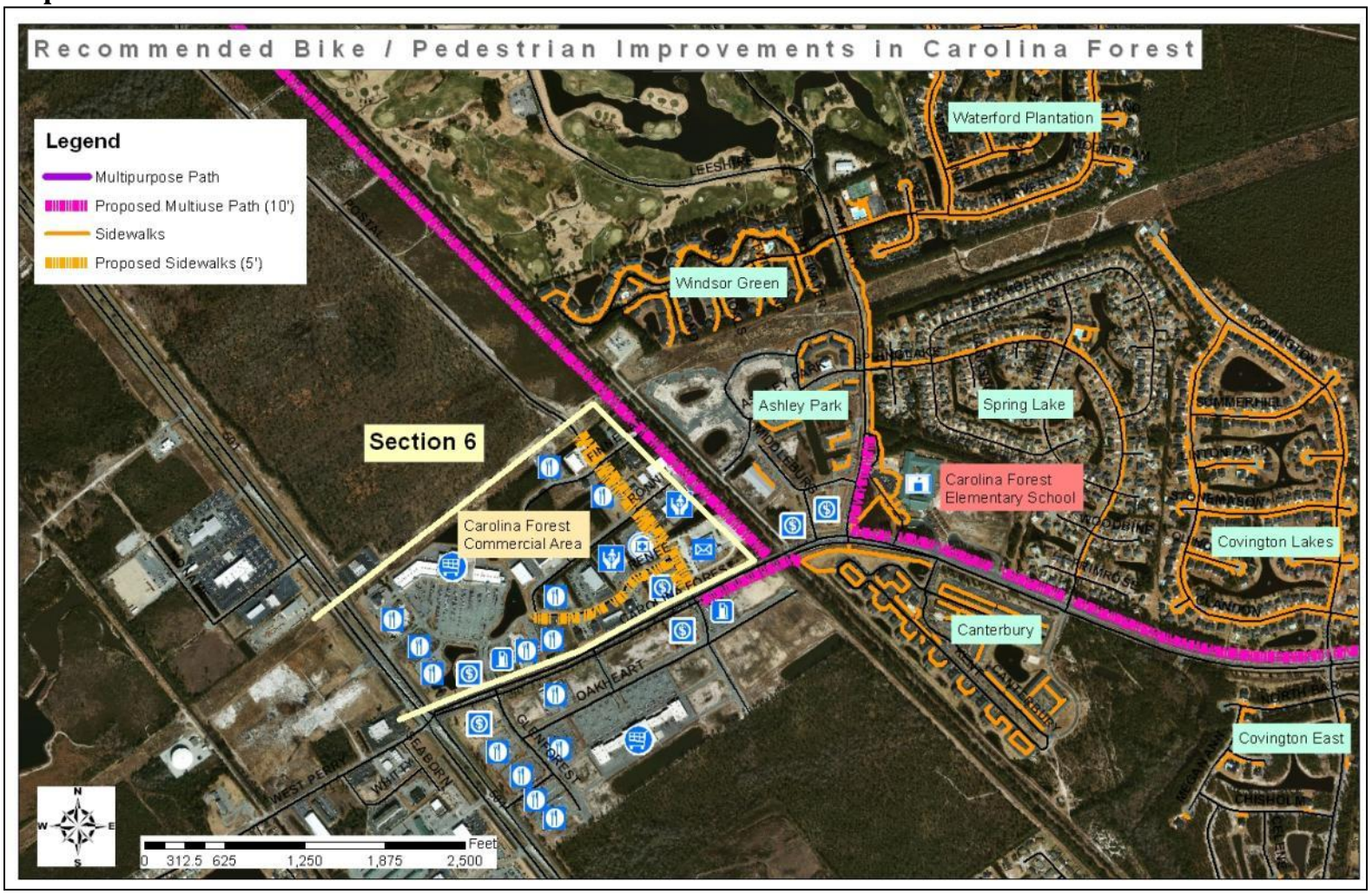
Horry County Planning & Zoning Department, 2012

Map B-6: Section 5



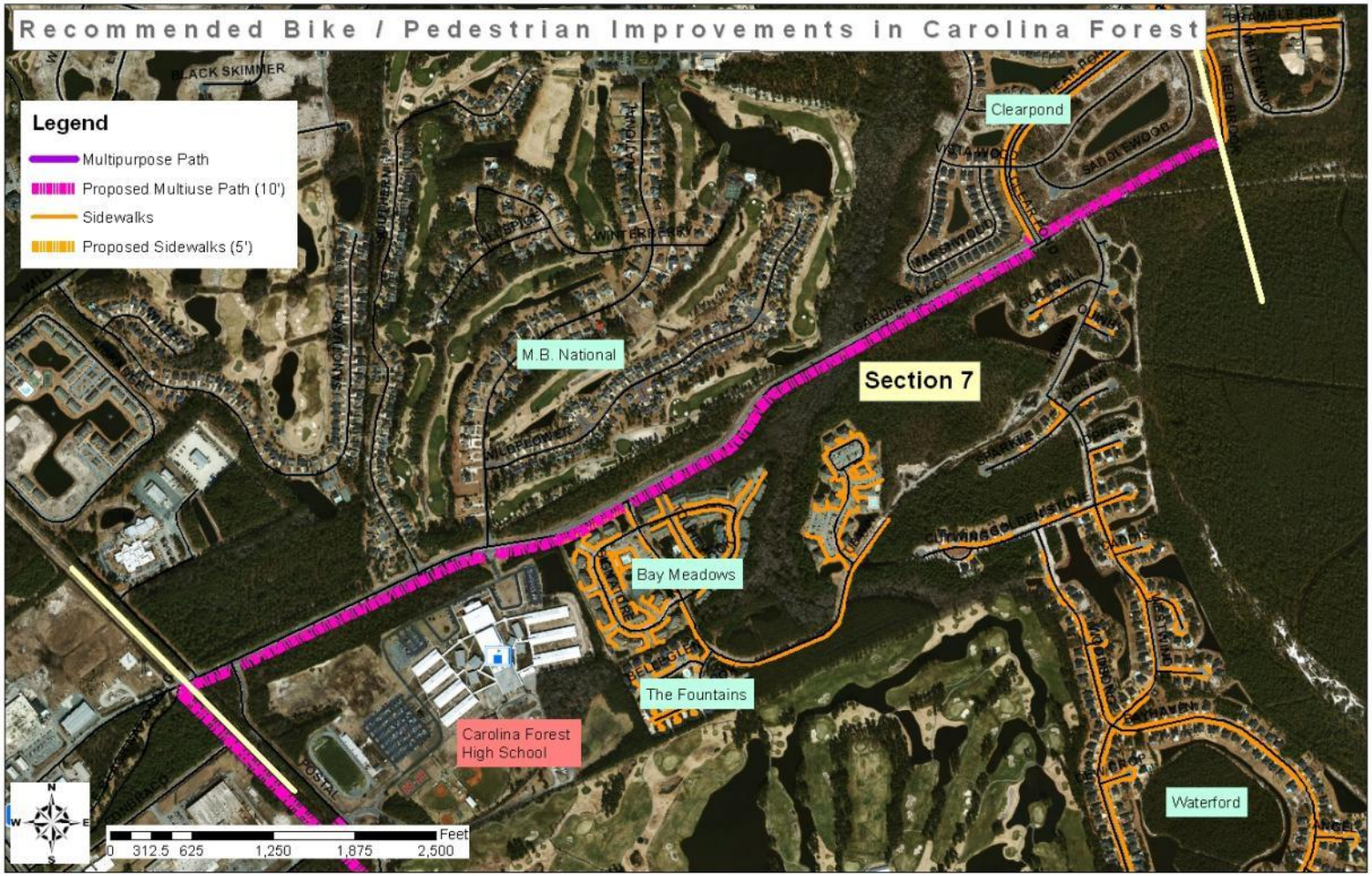
Horry County Planning & Zoning Department, 2012

Map B-7: Section 6



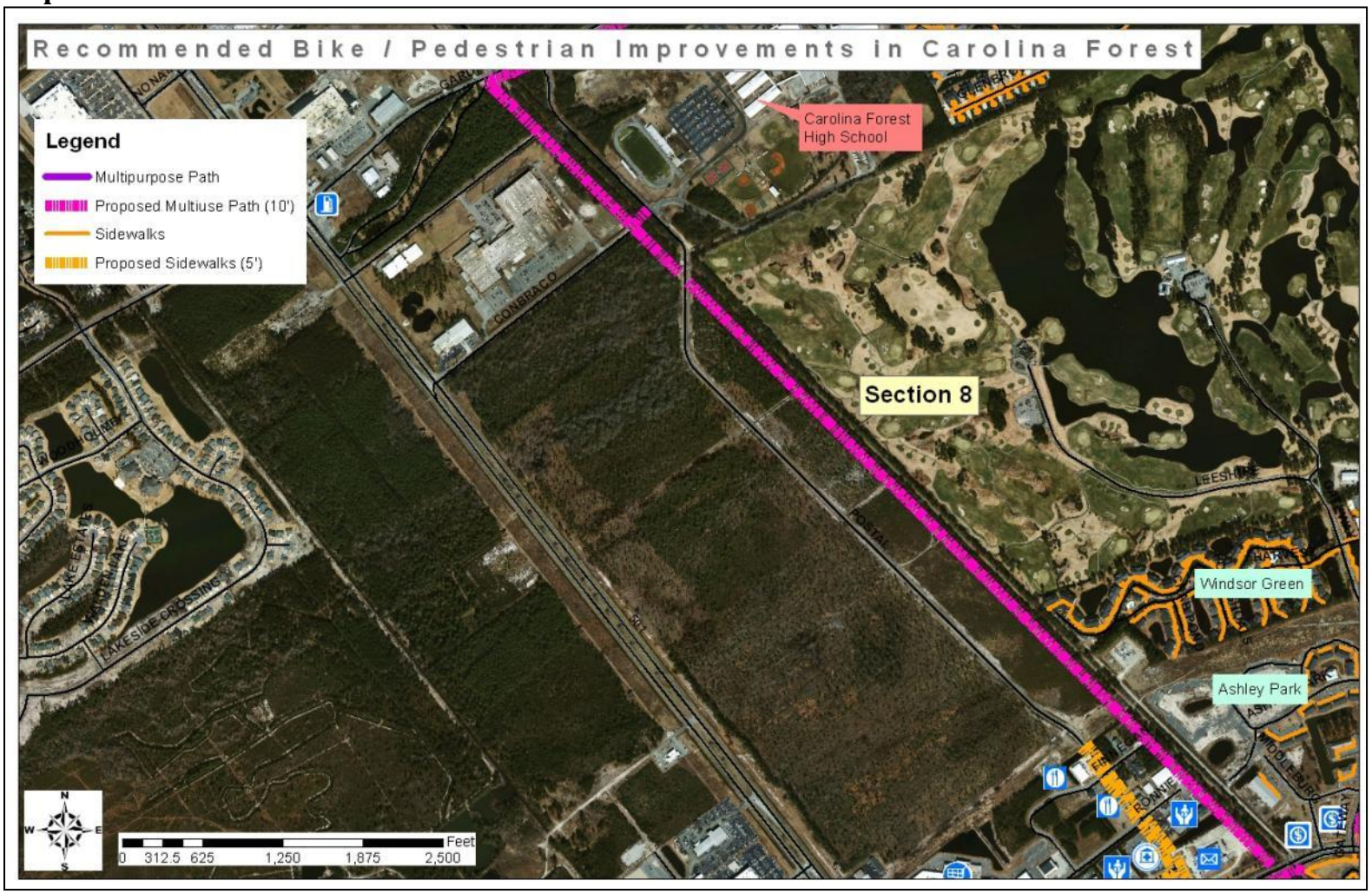
Horry County Planning & Zoning Department, 2012

Map B-8: Section 7



Horry County Planning & Zoning Department, 2012

Map B-9: Section 8



Horry County Planning & Zoning Department, 2012

APPENDIX C: OTHER MAPS

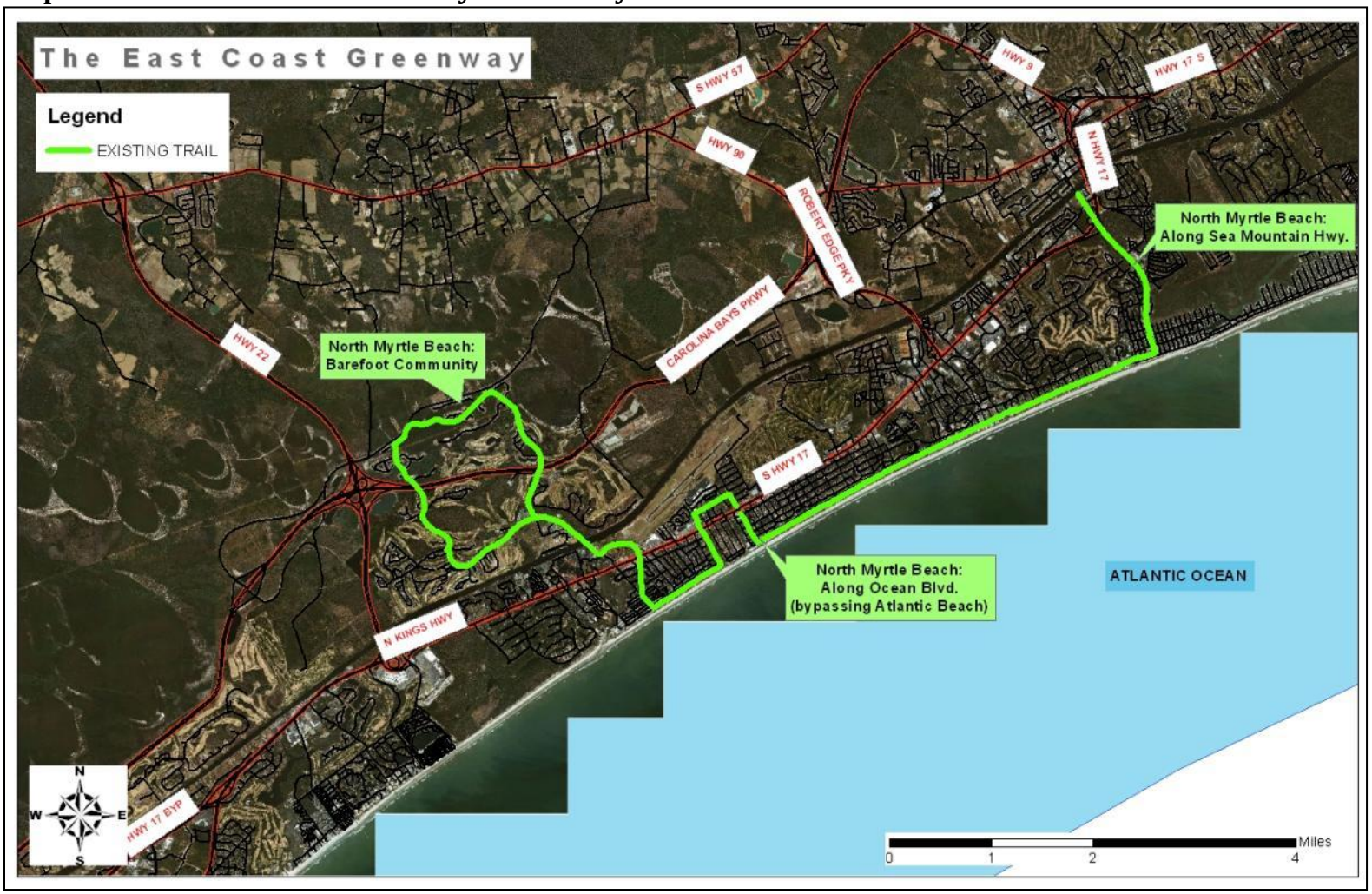
Map C-1: The East Coast Greenway – South End

Horry County Planning & Zoning Department, 2012

Map C-2: The East Coast Greenway – Myrtle Beach

Horry County Planning & Zoning Department, 2012

Map C-3: The East Coast Greenway – North Myrtle Beach



Horry County Planning & Zoning Department, 2012