



WAKULLA COUNTY

BICYCLE, PEDESTRIAN, AND BLUEWAYS MASTER PLAN



THE WAKULLA COUNTY
BICYCLE, PEDESTRIAN, AND BLUEWAYS
MASTER PLAN



WAS DEVELOPED FOR
WAKULLA COUNTY

BY
KIMLEY-HORN AND ASSOCIATES, INC



Kimley-Horn
and Associates, Inc.

WITH ASSISTANCE FROM
APPLIED SUSTAINABILITY ENTERPRISES, LLC
AND MYRA PLANNING AND DESIGN

ACKNOWLEDGEMENTS



The Wakulla County Bicycle, Pedestrian, and Blueways Master Plan was developed in 2012 through the collaborative efforts of state, regional, and local governments and agencies; stakeholders from local organizations and businesses; an Advisory Committee; as well as through participation and input from the local community.

A special thank you goes to the following entities for their involvement and participation throughout the development of this master plan:

Wakulla County Board of County Commissioners

- Lynn Artz
- Alan Brock
- Randy Merritt
- Jerry Moore
- Mike Stewart

Wakulla County Bicycle, Pedestrian, and Blueways Advisory Committee

Federal, State and Regional Agencies and Organizations

- U.S. Forest Service
- State Forest Service
- Florida Department of Transportation (FDOT)
- Florida Department of Environmental Protection (FDEP) Office of Greenways and Trails (OGT)
- Capital Region Transportation Planning Agency (CRTPA)

Local Government Entities and Organizations

- Big Bend Scenic Byways Corridor Management Entity
- Panacea Waterfronts Florida Group
- Wakulla County Chamber of Commerce
- Wakulla County Sheriff's Department
- Wakulla County Parks and Recreation

- Wakulla County Tourism Development Council
- Wakulla County School Board
- City of St. Marks
- City of Sopchoppy
- St. Marks Waterfronts Florida Partnership, Inc.

Local Businesses and Associations

- TnT Hideaway Outfitters
- The Wilderness Way Outfitters
- The Florida Dog Hunters and Sportsman's Association

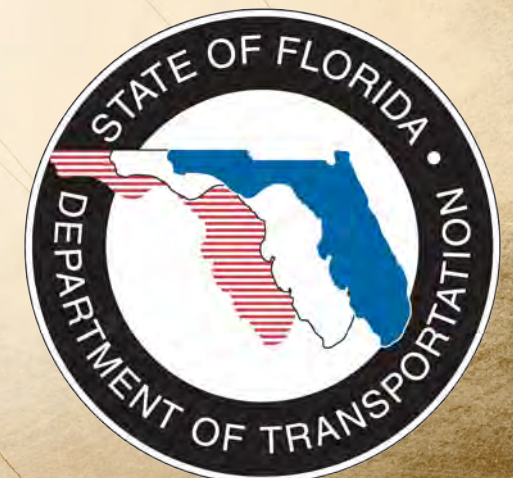




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INTRODUCTION & PURPOSE



Introduction

Wakulla County, established in 1843, is a place of rich history and natural beauty. Wakulla County offers residents and visitors access to numerous walking, biking, and paddling trails, as well as some of Florida's oldest historical sites. This history and beauty make the County a premier destination for geotourism. Wakulla County also provides several recreational opportunities including local and state parks, trails, forests, and boat launches to the rivers and beaches. By leveraging these assets and enhancing the bicycle, pedestrian, and blueway opportunities in the County, Wakulla can continue to improve the quality of life for residents, enhance mobility, attract visitors and tourists, and promote economic development for the small and local businesses in the County.

Purpose

The purpose of this Bicycle, Pedestrian, and Blueways Master Plan is to provide Wakulla County with a specific planning tool that will pinpoint specific projects and policy recommendations focused on improving the quality of multimodal services within the County. During the development of this plan, coordination was made between Wakulla County, The Florida Department of Environmental Protection's Office of Greenways and Trails, The Florida Paddling Trails Association, and other entities to connect trails, parks, and water features in the region. Connecting these features allows Wakulla County to be able to market itself as a true ecotourism community, which would boost the economy and further economic development opportunities.

The Master Plan will be supplemented by an engineering feasibility study, design guidelines, a marketing plan, a bicycle route map, and a mobile application for iOS (iPhone, iPad, iTouch) devices. Together these features will provide the County with a ready-to-implement plan.



Gateway to the St. Marks Trail



THE PLANNING PROCESS

Planning Process

Many different people, organizations, and advocate groups were involved in the development of this Bicycle, Pedestrian, and Blueways Master Plan. Due to this coordination, a comprehensive planning process was used in order to fully capture the ideas, goals, and concerns of the different groups. This planning process included:

- Project newsletters
- Data collection
- Data analysis
- Stakeholder interviews
- An advisory committee
- A public workshop
- A workshop with the Board of County Commissioners
- Establishing a project vision
- Goals, Objectives, and Strategies

Project Vision

Through the development and implementation of the Wakulla County Bicycle, Pedestrian, and Blueways Master Plan, Wakulla County strives to provide more mobility options within the County, specifically through the development of bicycle, pedestrian, and blueway facilities. The development of these facilities should enhance walkability, expand bicycling opportunities, provide for better connectivity and mobility, and promote economic opportunities within the County. The facility and policy recommendations included in the Wakulla County Bicycle, Pedestrian, and Blueways Master Plan were developed in accordance with this vision.



GOALS, OBJECTIVES, STRATEGIES



Goals, Objectives, and Strategies for the Wakulla County Bicycle, Pedestrian, and Blueways Master Plan

Goal 1: Enhance walkability within Wakulla County

Objective 1: Provide safe corridors for students to access school facilities

Strategy 1: Gain input from key stakeholders in the County familiar with the needs of students in the County

Strategy 2: Identify gaps in the bicycle and pedestrian network within a reasonable walking distance from County schools

Strategy 3: Outline strategies to leverage Safe Routes to Schools (SRTS) funding and the Community Traffic Safety Team (CTST) to implement projects that provide for safer routes to Wakulla County Schools

Objective 2: Provide safe connectivity between municipalities

Strategy 1: Identify corridors between municipalities where sufficient rights-of-way exist to construct multiuse trails or wide sidewalks

Strategy 2: Gain input from key stakeholders in the County familiar with the needs of residents in the County

Strategy 3: Gain input from the public in a workshop to identify and prioritize the need for connections between municipalities

Objective 3: Address gaps in the pedestrian facility network

Strategy 1: Collect and analyze data to identify gaps and to develop recommendations to address network gaps

Strategy 2: Gain input from key stakeholders in the County familiar with the needs of County residents

Strategy 3: Gain input from the public in a workshop to identify and prioritize pedestrian facility needs in the County

Goal 2: Expand bicycling opportunities within Wakulla County

Objective 1: Provide a system of multiuse trails within the County

Strategy 1: Collect and analyze data to identify abandoned rail corridors, opportunities for rails to trails and trails with rails, easements, and

corridors with sufficient right-of-way for the construction of multiuse trail facilities

Strategy 2: Identify key destinations within the County and provide recommendations to connect population centers to key destinations

Strategy 3: Establish policy objectives and design guidelines to provide for wide paved shoulders along roadways for use as undesignated bicycle lanes

Objective 2: Enhance mountain biking opportunities within the County

Strategy 1: Identify, collect, and analyze data for existing trail facilities within the County

Strategy 2: Develop recommendations to enhance and promote existing mountain biking opportunities within the County

Strategy 3: Coordinate with public land managers to identify opportunities to expand mountain biking opportunities within the County

Goal 3: Provide better connectivity and mobility for bicyclists and pedestrians within the County

Objective 1: Develop a network of bicycle and pedestrian facilities within the County

Strategy 1: Gain input from stakeholders and the public regarding areas of the greatest need for bicycle and pedestrian facilities

Strategy 2: Identify opportunities for the development of new bicycle and pedestrian facilities within the County

Strategy 3: Identify gaps in the existing bicycle and pedestrian facility network and develop recommendations to address these gaps

Objective 2: Provide a system of signage to aid in wayshowing and wayfinding within the County

Strategy 1: Develop design concepts for a family of signs that provide for wayshowing and wayfinding within the County

Strategy 2: Identify key locations within the County for the placement of wayshowing and wayfinding signage

Goal 4: Promote economic opportunities through bicycle, pedestrian, and blueway facilities within Wakulla County

Objective 1: Provide for connectivity with commercial development within the County

Strategy 1: Provide recommendations for a bicycle and pedestrian facility



GOALS, OBJECTIVES, STRATEGIES

network that connects to local businesses and commercial development

Strategy 2: Provide wayshowing and wayfinding recommendations that identify and direct visitors and residents to areas of commercial development within the County

Objective 2: Promote blueway facilities within Wakulla County

Strategy 1: Identify opportunities to enhance docks and boat launch facilities within the County

Strategy 2: Identify opportunities for the County and the Tourism Development Council (TDC) to promote blueways to attract visitors to the County

Objective 3: Promote mountain biking within Wakulla County

Strategy 1: Identify opportunities to enhance existing mountain biking opportunities within the County

Strategy 2: Identify opportunities to provide additional mountain biking opportunities within the County

Strategy 3: Provide recommendations to provide connectivity between mountain biking opportunities and other key destinations within the County

Objective 3: Develop tools that can assist the County with the promotion of bicycle, pedestrian, and blueway facilities for the purposes of economic development

Strategy 1: Develop an implementation-focused bicycle and pedestrian master plan that provides facility and policy recommendations that address bicycle, pedestrian, and blueway facilities

Strategy 2: Develop a bicycle route map that identifies the County's attributes, highlights key attractions, and promotes bicycling within the County



Sopchoppy River at the US 319 Bridge

EXISTING CONDITIONS



Existing Conditions

Geography

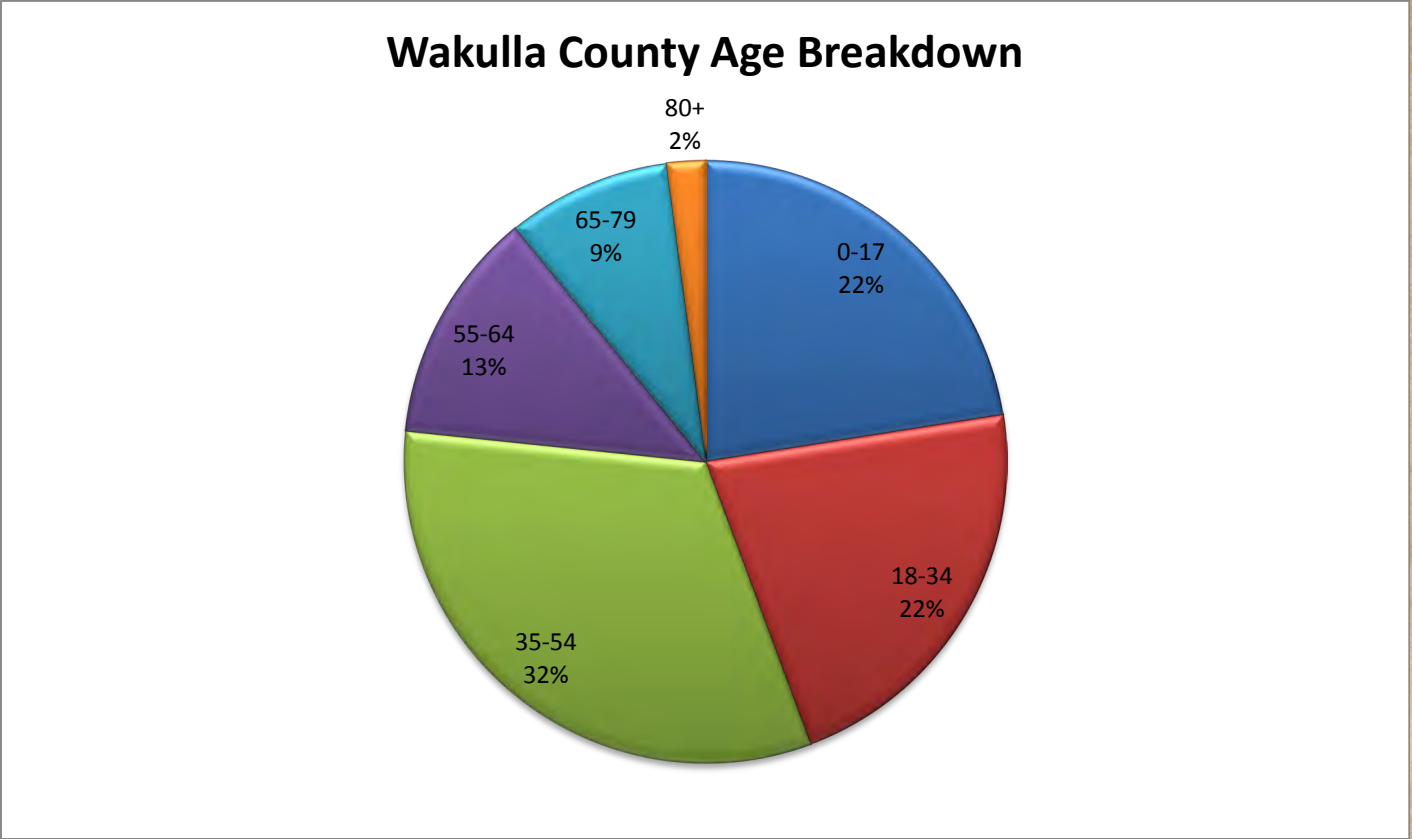
Wakulla County is a 606 square mile coastal county located south of Tallahassee (Leon County) in the Panhandle Region of Florida. According to the 2008 Evaluation and Appraisal Report, approximately 238,943 acres of land in Wakulla is considered conservation land. Wakulla is also unique in the fact that it has only two incorporated cities (St. Marks and Sopchoppy) and neither city holds the County seat. The County seat is held by Crawfordville, an unincorporated area with a majority of the County's population. The county is home to many local parks (Azalea Park, Hickory Park, Hudson Park, Mashas Sands, Medart Park, Newport Campground, Shell Point Beach, and Woolley Park) as well as State Parks (Edward Ball Wakulla Springs State Park and San Marcos de Apalache Historic State Park), a State Forest (Wakulla State Forest), a National Forest (Apalachicola National Forest) and a National Wildlife refuge (St. Marks National Wildlife Refuge). Wakulla County also is home to some of the most unique festivals and events in the world, including The Blue and Stone Crab Festivals, the Mighty Mullet Maritime Festival, the Monarch Butterfly Festival, and The Worm Gruntin' Festival. The County is also one of the top 10 school districts in Florida.



Demographics

According to the 2011 Florida Statistical Abstract, published by the University of Florida Bureau of Economic and Business Research (BEBR), the estimated population for Wakulla County is 30,776. This represents a 34.6 percent increase in population from the 2000 Census, making Wakulla County one of the fastest growing counties in Florida. The age breakdown of Wakulla's population is shown in Figure 1. 22 percent of the population is 0-17 years of age; the age bracket is predominantly below the driving age. 11 percent of the population is above the age of 65, a bracket where some individuals may experience greater need for transportation options beyond personal vehicles. The remaining 67 percent of the population is within the prime driving age.

Figure 1: Wakulla County Age Brackets



The population of Wakulla County is expected to increase steadily in the future. Figure 2 shows the BEBR population projections for Wakulla County for the next 30 years.

Figure 2: Wakulla County Population Projections

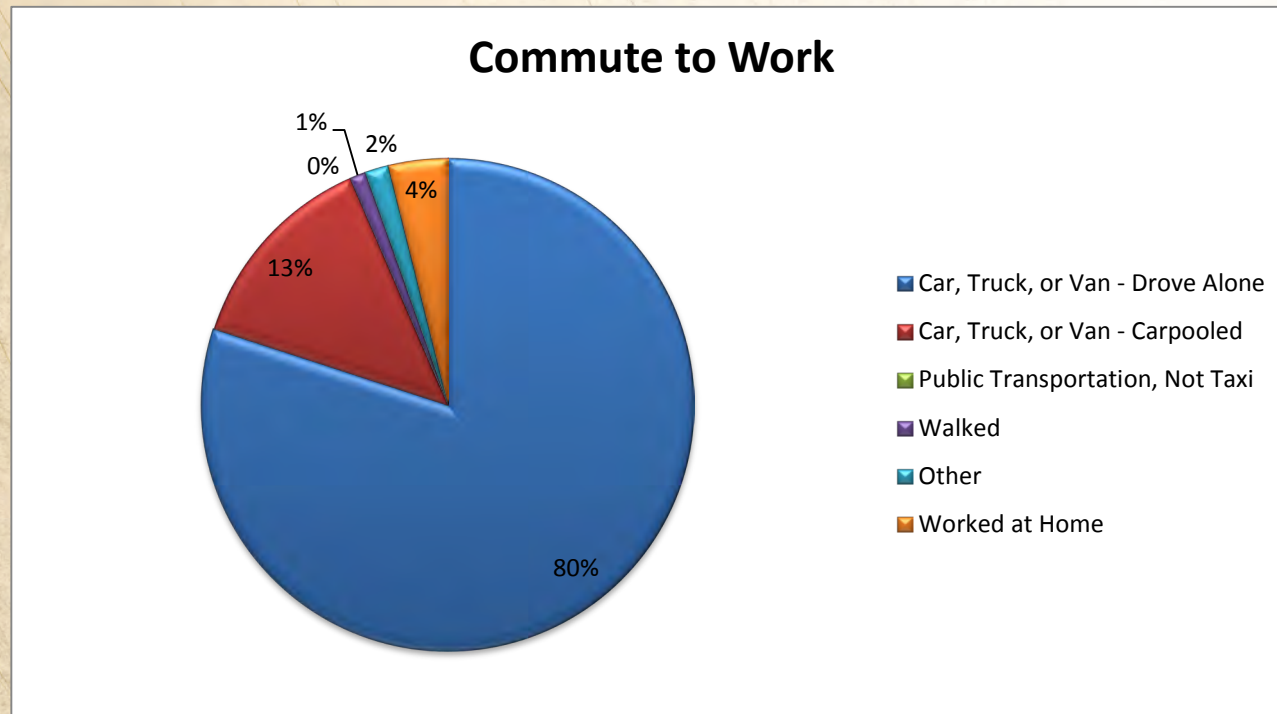
Wakulla County	Population Projections					
	2015	2020	2025	2030	2035	2040
Low	32,100	33,400	34,500	35,300	35,800	36,000
Medium	33,300	36,200	39,100	41,800	44,300	46,700
High	34,800	39,300	44,000	48,800	53,700	58,700



EXISTING CONDITIONS

According to the 2005 – 2009 American Community Survey Five-Year Estimates, 77 percent of all residents over the age of 16 drove alone to work, 17 percent carpooled, 4 percent worked at home, 1 percent walked, and 1 percent relied on some “other” forms of transportation, such as bicycling (Figure 3). Public transportation is currently not available in Wakulla County as a means to travel to work.

Figure 3: Wakulla County Residents' Commutes to Work



As the population of Wakulla County continues to grow and as the current driving-age portion of the population ages, the number of people relying on modes of transportation other than driving a personal vehicle may increase. Some of these individuals will rely on bicycle and pedestrian facilities as well as transit for their transportation needs.

Transportation System

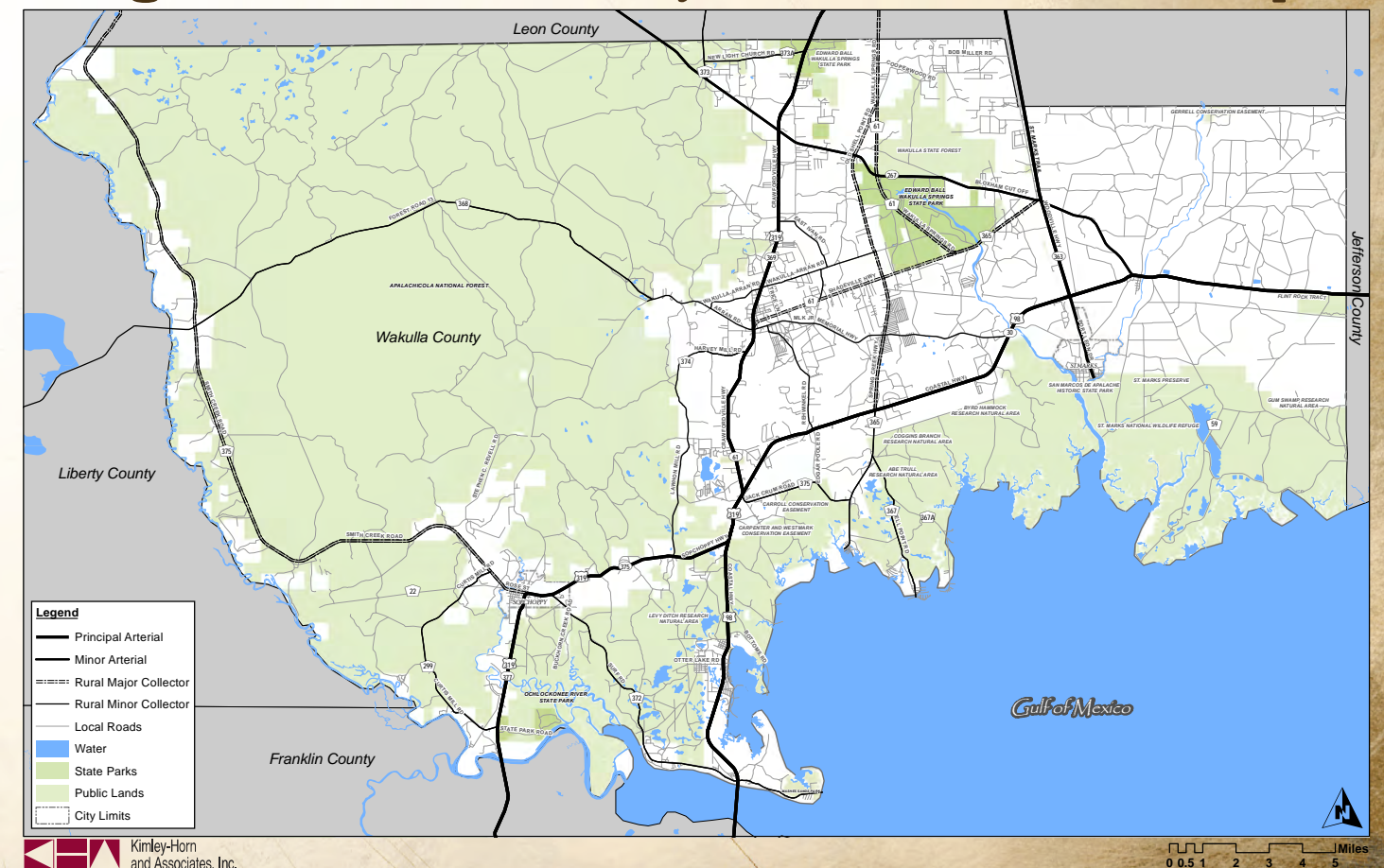
Transportation Network: Two major federal roadways are located within Wakulla County. US 319, locally known as Crawfordville Highway, is a north-south roadway that crosses the Wakulla County/Leon County line, merges with US 98, splits off as US 319/Sopchoppy

Highway where it passes through Sopchoppy before crossing the Wakulla County/Franklin County line. This roadway serves as a through-way for the County and is the primary commercial corridor within the County.

US 98, locally known as Coastal Highway, crosses the Wakulla County/Jefferson County line, runs east-west through the County, merges briefly with US 319, and crosses the Wakulla County/Franklin County line.

In addition to US 319 and US 98, several other roads serve Wakulla County as primary transportation routes. These include SR 267/Bloxham Cutoff Road, SR 61/Shadeville Road, CR 365/Spring Creek Highway, and SR 363/Woodville Highway. Figure 4 shows Wakulla County's vehicular transportation network as adopted in the Wakulla County Comprehensive Plan.

Figure 4: Wakulla County Traffic Circulation Map



EXISTING CONDITIONS



Transit Facilities: Wakulla County currently does not have a public transportation system, but does offer a dial-a-ride system for the elderly members of the community provided by the Wakulla County Senior Citizens Council, Inc. The goal of the coordinated transportation system is to provide transportation disadvantaged citizens of Wakulla County access to health care, local shopping, the Senior Center, and other life-sustaining activities.

Multiuse Trails: A former rail bed converted into a paved multiuse trail, the Tallahassee-St. Marks Historic Railroad State Trail is the predominant bicycling facility in Wakulla County. Approximately 10 miles of the overall 16 miles of the trail are in Wakulla County. The Tallahassee-St. Marks Historic Railroad State Trail is mainly used for recreation, although it is also used for transportation purposes. The trail also has regional importance because it connects Wakulla County to Tallahassee and is in close proximity to various parks and historical sites, including the San Marcos de Apalache Historic State Park in St. Marks.

Wakulla County has also completed construction on the first phase of a five-phase bike trail known as the Ochlockonee Bay Bicycle Trail. Once completed, this multiuse trail will extend from Mashas Sands to the City of Sopchoppy.

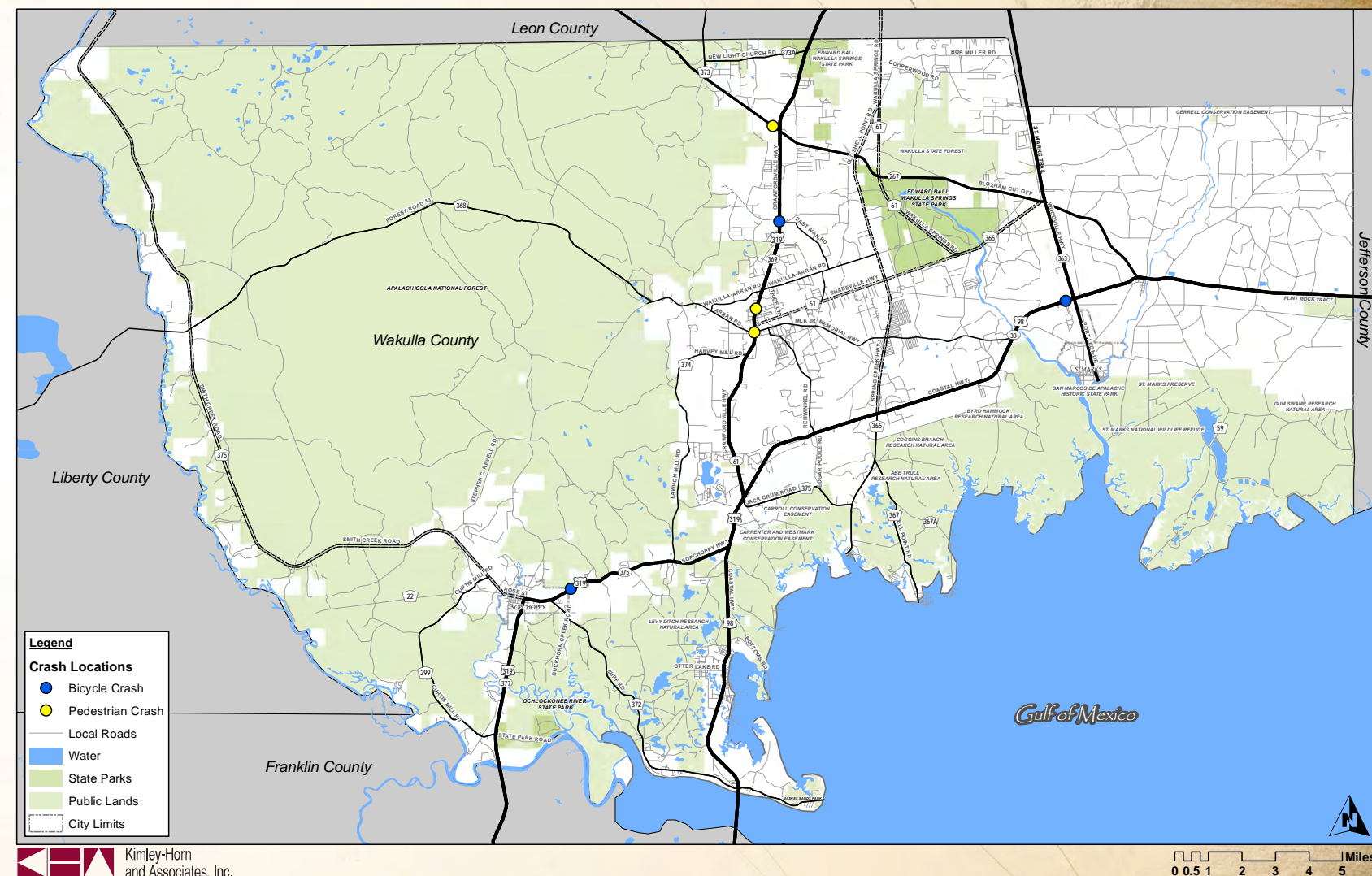
Bike Facilities: Wakulla County lacks designated bicycle lanes, but does have a number of paved shoulders which serve as undesignated bicycle lanes. These wide paved shoulders are located on US 319 from the north border of the county until it crosses Arran road, Sopchoppy Highway, Bloxham Cutoff, and US 98 from the eastern border until it merges with US 319.

Sidewalks: Wakulla County currently has very few sidewalks. The presence of sidewalks is limited to isolated locations within Crawfordville, Sopchoppy, and St. Marks.

Crashes Involving Bicyclists or Pedestrians

Between 2008 and 2011, there have been 11 crashes on Florida Highway System Roads in Wakulla County involving bicyclists or pedestrians. Of the 11 crashes, one crash resulted in fatalities. Figure 5 shows the location of the crashes on the Florida Highway System involving bicyclists or pedestrians in Wakulla County.

Figure 5: Crashes Involving Bicyclists or Pedestrians





EXISTING CONDITIONS

Key Destinations

Senior Center: The Wakulla County Senior Center is located just a few blocks from US 319 in Crawfordville. Located right next to the senior center is a senior citizen housing complex. With these two locations being located so close together and being in such close proximity to US 319, sidewalks are needed to give seniors a safe way to access shops and businesses. The senior center is also located in close proximity to Azalea Park and the undeveloped Crabapple Park.

Commercial Activity: The primary commercial corridor in Wakulla County is US 319 in the Crawfordville area. In Wakulla County, locally owned businesses, restaurants, and shopping opportunities are primarily located on US 319. US 319 is also home to the historic courthouse and is the main connector to nearby Tallahassee. In addition to US 319 in Crawfordville, there are also small areas of commercial activity in St. Marks, Panacea, Medart, and Sopchoppy.

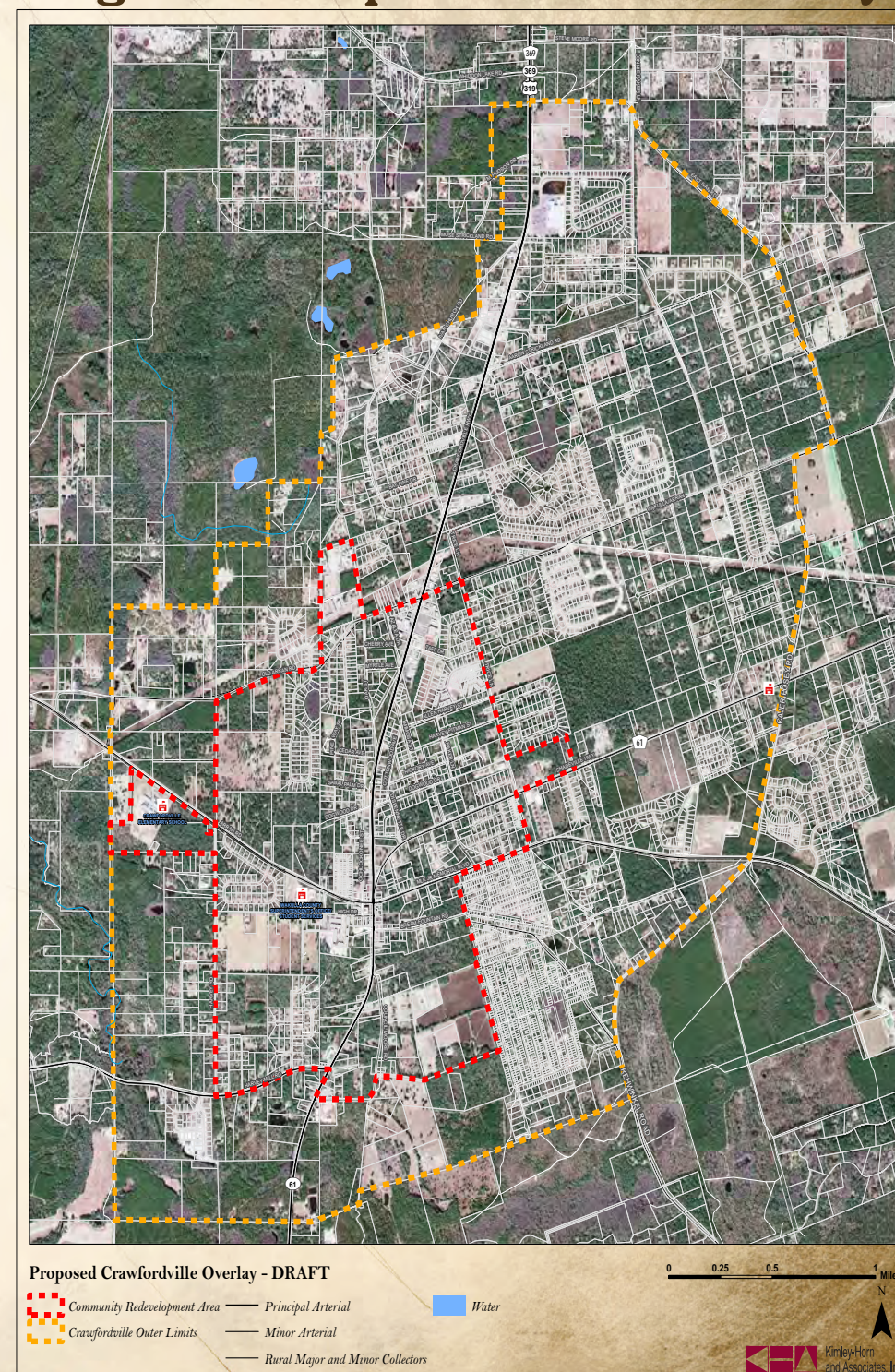
Proposed Community Redevelopment Agency (CRA): The Crawfordville Town Plan recommends the establishment of a Community Redevelopment Agency (Figure 6) that, if adopted, will potentially include the section of US 319 where many local businesses are located. The CRA will help dedicate funding to the area specifically for redevelopment projects. Within the proposed CRA, the Crawfordville Town Plan also proposes creating a Historic Town Square on US 319 that would include the Old County Jail and Old Courthouse.

Medical Centers: Wakulla County has numerous general practitioners and family pediatricians. Wakulla also offers two medical care facilities, the Wakulla Medical Center and Wakulla Urgent Care. The Wakulla Medical Center is located south of Otter Lake Road, west of US 98. Wakulla Urgent Care is located near the intersection of US 319 and Wakulla-Arran Road. Both facilities offer general medical care, immunizations, physicals, and other general medical procedures. In addition to these medical facilities, Wakulla County is home to Eden Springs Nursing Home, which is located just north of US 98 on US 319. Eden Springs is also the third largest employer in the Wakulla County.

Crawfordville Section of US 319



Figure 6: Proposed CRA Boundary



EXISTING CONDITIONS



Parks: Wakulla County is home to many local and State Parks. The main county park is Azalea Park, which is located north of Martin Luther King Jr. Memorial Road on US 319. The park offer amenities such as exercise paths, workout stations, and a lion statue that is painted by citizens for holidays and events. Wakulla County's other parks include amenities such as tennis courts, playgrounds, beaches, piers, boat ramps, athletic fields with organized sports, general athletic fields, baseball and softball diamonds, and camping. These parks include Hickory Park, Hudson Park, Mashas Sands, Medart Park, Woolley Park, Newport Campground, and Shell Point. State Parks in Wakulla County include the Tallahassee-St. Marks Historic State Trail, a Florida Rails-to-Trails project that extends from Tallahassee to the City of St. Marks, and Edward Ball Wakulla Springs State Park.

Big Bend Scenic Byway: The Big Bend Scenic Byway is a 220-mile designated National Scenic Byway that transports visitors from thick pine forests to salt marshes and sand dunes. Covering areas in Leon, Wakulla, and Franklin Counties, the Big Bend Scenic Byway serves as a major attraction for the region. The Byway not only allows visitors to view the undisturbed landscapes of North Florida, but also benefits the residents of the area by serving as a geotourism attractor and economic development stimulator. The Big Bend Scenic Byway is designated both as a Florida Scenic Highway as well as a National Scenic Byway. In accordance with the Big Bend Scenic Byway Corridor Management Plan, the byway will aid Wakulla County by “encouraging enhancement projects along the Byway corridor to improve bicycle and pedestrian connectivity and facilities” (Strategy 2.1.7) and “work with counties and local authorities on the construction and improvement of pedestrian walkways, bridges, parking, and rest areas” (Strategy 2.2.1). The Big Bend Scenic Byway Corridor Management Entity also hopes to improve safety by improving pedestrian crossing at signalized and unsignalized locations (Strategy 2.3.2).

Big Bend Maritime Center: Located in Panacea, the Big Bend Maritime Center expands opportunities for public education on the scenic beauty, economic significance, and historical value of the natural resources and of the people of the Big Bend Region of Florida's Gulf Coast. The maritime center is a museum that links the history of the area to present day experiences. The Big Bend Maritime Center serves as a hub that attracts visitors to experience the history of the area.

Hickory Park



Hudson Park



Azalea Park



EXISTING CONDITIONS

St. Marks National Wildlife Refuge: The St. Marks National Wildlife Refuge was established in 1931 to provide a wintering habitat for migratory birds. The refuge is also known for its coastal marshes, islands, tidal creeks, estuaries, and numerous species of plants and animals. The refuge is of regional importance due to its location throughout three counties in the Florida Panhandle. Located inside the refuge is the St. Marks Lighthouse, which was built in 1832; this lighthouse attracts many tourists to the area to observe old Florida history.

Wakulla Springs: Located inside of Edward Ball Wakulla Springs State Park, Wakulla Springs is one of the largest and deepest freshwater springs in the world. In addition to the numerous amenities provided at the park, including boat tours and hiking trails, Wakulla Springs is also home to numerous different wildlife species such as alligators, turtles, deer, and birds.

Wakulla State Forest: The main section of the Wakulla State forest is located in Wakulla County, northeast of Crawfordville. The forest was acquired from the St. Joe Company in the early 2000's. The forest is home to many different species, ranging from gopher tortoise to fox squirrels. The forest was acquired in order to preserve nearby Wakulla Springs, because the area was being used for timber harvesting and is part of the ground conduit system that supply the springs. Currently the forest is used for recreational purposes, ranging from hunting to hiking, bicycling, and horseback riding.

Apalachicola National Forest: The Apalachicola National forest was designated in 1936 and, at 571,088 acres, is Florida's largest forest. The forest contains a large variety of natural features, including savannahs, prairies, caverns, and sinkholes. In addition to these unique natural features, the forest has numerous recreational opportunities that include, off-road bicycling trail, camping, hiking, and kayaking and canoeing.



Wakulla Springs State Park



EXISTING CONDITIONS



Blueway Facilities

The Florida Department of Environmental Protection's Office of Greenways and Trails identified the following blueways as designated paddling trails in Wakulla County:

Ochlockonee – Lower River: This Florida Blueway covers a 64-mile stretch that originates in Leon County, forms the border between Liberty and Wakulla Counties, and terminates in Franklin County. The Lower Ochlockonee River offers paddlers of all skill levels deep, open waters, with few riverside structures to take away from the natural beauty and wildlife. The Lower Ochlockonee River has 21 different launch sites that allow users to choose a paddling distance that suits them. Convenient access points are located where the river crosses SR 20, the intersection of CR 368 and NF 13, and the Ochlockonee River State Park. In addition to the beautiful natural features and wildlife on the river, the Lower Ochlockonee River is also home to a Civil War Historic Site where in 1863 two USS steamers with 130 men in eight small-armed vessels went ashore at Mashes Island to destroy Confederate salt works and salt boilers.

Sopchoppy River: This 15-mile stretch of river located in the southwest portion of Wakulla County provides residents and visitors the ability to take in the sights and sounds of an old Florida treasure that was originally mapped in 1683. The Sopchoppy River is home to some of Florida's original residents in the turtle, alligator, black bear, and deer, as well as a variety of birds and snakes. The four launch points at Oak Park Cemetery Bridge, Mount Beasor Church Bridge, Myron B. Hodge City Park (Sopchoppy City Park), and US 319 Bridge make it convenient for paddlers to use the river for whatever distance suits them best.

Wakulla River: The section of the Wakulla River that is designated as a Florida Blueway paddling Trail is a short 3.8-mile stretch located just northwest of the City of St. Marks, but what it lacks in length it more than makes up for in beauty, history, and uniqueness. The Wakulla River is fed by two naturally occurring springs, one is an unnamed sulfur spring, and the other is the world famous Wakulla Spring, the largest and deepest freshwater spring in the world. Located just to the south of the designated paddling trail is the San Marcos de Apalache Historic State Park, which is home to a museum and several walking trails. The Wakulla River contains a very diverse set of animals that include alligator, yellow-bellied slider, white ibis, anhinga, kingfisher, pileated woodpecker, osprey, and manatee. The two launch locations on the river are located at the CR 365 bridge and the US 98 bridge. In addition to the access points along the designated paddling trail, access points are also located in the City of St. Marks.

Florida Circumnavigational Saltwater Paddling Trail: Wakulla County also contains roughly 44 miles of the 1,515 total miles of the Florida Circumnavigational Saltwater Paddling Trail, which starts in Pensacola and ends north of Jacksonville. The section in Wakulla County allows paddlers to see the beautiful coastline as well as sites such as the St. Marks Lighthouse. Launch points for this trail include Bald Point State Park and Ochlockonee River State Park.

St. Marks River



Manatee and Paddler on the Wakulla River





EXISTING CONDITIONS

Schools

Four elementary schools, two middle schools, one high school, and three specialty schools are located within Wakulla County:

- Crawfordville Elementary (located west of US 319 on Arran Rd.)
- Medart Elementary (located on the south side of the intersection of Sopchoppy Hwy. and US 98)
- Riversink Elementary (located east of US 319 near Bloxham Cutoff Rd. on Lonnie Raker Lane)
- Shadeville Elementary (located north of Wakulla-Arran Rd. on Spring Creek Highway)
- Riversprings Middle (located north of Wakulla-Arran Road on Spring Creek Highway)
- Wakulla Middle (located north of the US 319/98 intersection on Jean Drive)
- Wakulla High (located on the east side of the intersection of US 319 and US 98)
- Sopchoppy Education Center (located east of Sopchoppy Highway on Yellow Jacket Avenue)
- Wakulla Education Center (located south of Shadeville Highway on Andrew J Hargrett Sr. Road)
- C.O.A.S.T. Charter (located in St. Marks on Shell Island Road)

Existing Signage

There is currently no uniform set of signage in Wakulla County. Because of this, people may often find it difficult to navigate to key destinations throughout the County. Having uniform signage throughout the County will allow users to know that they are receiving trustworthy information and provide a sense of place for the county.



Wakulla County School Board Administration Building



EXISTING CONDITIONS



Consistency with Existing Plans

During the development of the Wakulla County Bicycle, Pedestrian, and Blueways Master Plan, other existing plans and reports for the County were reviewed and assessed. Recommendations included in these documents are included and referenced in this plan where appropriate.

Crawfordville Town Plan – The *Crawfordville Town Plan* was developed as a mechanism to consolidate past visioning efforts and to provide implementation strategies that support the vision for the Crawfordville Area. The *Crawfordville Town Plan* includes recommendations to update the County’s land development code regulations and comprehensive plan, to establish design guidelines, to provide incentives for development and business development, to provide capital improvements, and other policy and facility improvements to support Crawfordville as Wakulla’s downtown. The bicycle and pedestrian recommendations included in the Crawfordville Town Plan were considered during the development of this Bicycle, Pedestrian, and Blueways Master Plan.

Crawfordville Sector Plan – As part of the CRTPA’s *Regional Mobility Plan*, a sector plan was developed for the Crawfordville area. In addition to an analysis of the US 319 corridor, the sector plan’s general recommendations were for “new residential areas to be connected to nearby commercial and retail establishments with shared use paths of sidewalks.” The recommendations of this Bicycle, Pedestrian, and Blueways Master Plan address the general recommendation of the *Crawfordville Sector Plan*.

Plan St. Marks – *Plan St. Marks* was developed to address the redevelopment of the City of St. Marks and to provide a vision for the City’s Growth and Development. To aid in the City’s redevelopment, *Plan St. Marks* identified specific bicycle and pedestrian facilities that would enhance mobility and connectivity. These facility recommendations have been incorporated into this Bicycle, Pedestrian, and Blueways Master Plan.

Preserving and Expanding the Genuine St. Marks Experience – The St. Marks Waterfront Florida Partnership’s plan outlines priority issue areas and includes recommendations related to

wayfinding/wayshowing signage, improving bicycle and pedestrian connectivity, and linking the Tallahassee-St. Marks Historic Railroad State Trail to the City’s blueways. These priority areas and recommendations have been included in this Bicycle, Pedestrian, and Blueways Master Plan as appropriate.

Panacea Waterfronts Florida Community: A Work Plan for a Walkable Community – Improving the walkability of the Panacea Community was one of the priority projects identified by the Panacea Water Fronts Florida Community. *A Work Plan for a Walkable Community* acknowledged major areas of interest, physical impediments to cyclists and pedestrians, and assets for cyclists and pedestrians. *A Work Plan for a Walkable Community* also recommends developing a work plan for improving walkability in Panacea. The recommendations in this Bicycle, Pedestrian, and Blueways Master Plan support the goal of *A Work Plan for a Walkable Community*.

Wakulla County Community and Economic Development Plan – The *Wakulla County Community and Economic Development Plan* includes a profile of the County and identified opportunities to grow the County’s economy through enhanced tourism efforts. The Crawfordville Visioning component of this report specifically notes the County should be “focused on developing a multimodal transportation system with bicycle and pedestrian facilities and transit options that, in particular, provides access to natural and community resources and planning for future county wide infrastructure needs now.” Many of the recommendations in this Bicycle, Pedestrian, and Blueways Master Plan will further the goals identified during development of the Wakulla County Community and Economic Development Plan.

Big Bend Scenic Byway Corridor Management Plan – The Big Bend Scenic Byway is a 220-mile National Scenic Byway that capitalizes on much of Wakulla County’s natural beauty. Marketing the Byway in conjunction with the Bicycle, Pedestrian, and Blueways Master Plan will allow for added exposure of both facilities, which will attract more users. Many of the intrinsic resources listed in the Big Bend Scenic Byway are along current and proposed facility recommendations in the Bicycle, Pedestrian, and Blueways Master Plan. Because of this, it would be ideal for these two plans to complement each other to maximize exposure.



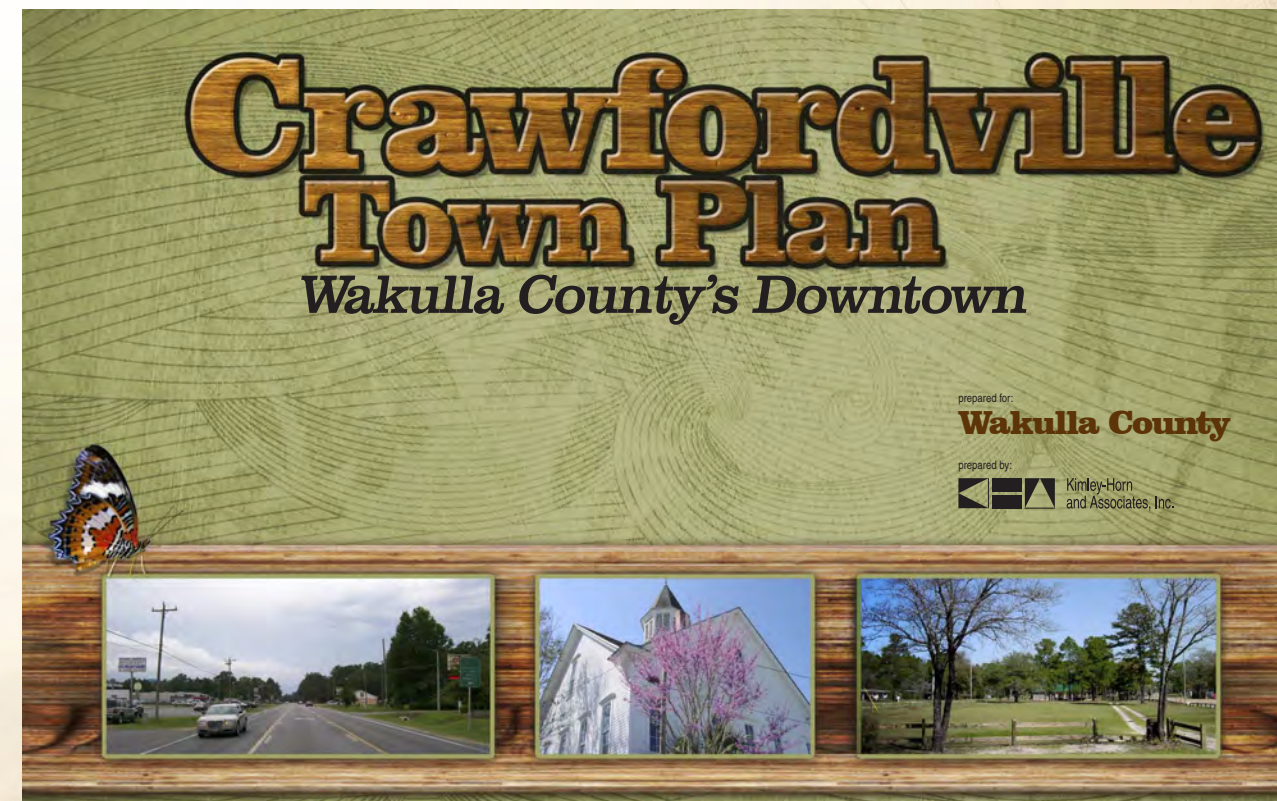
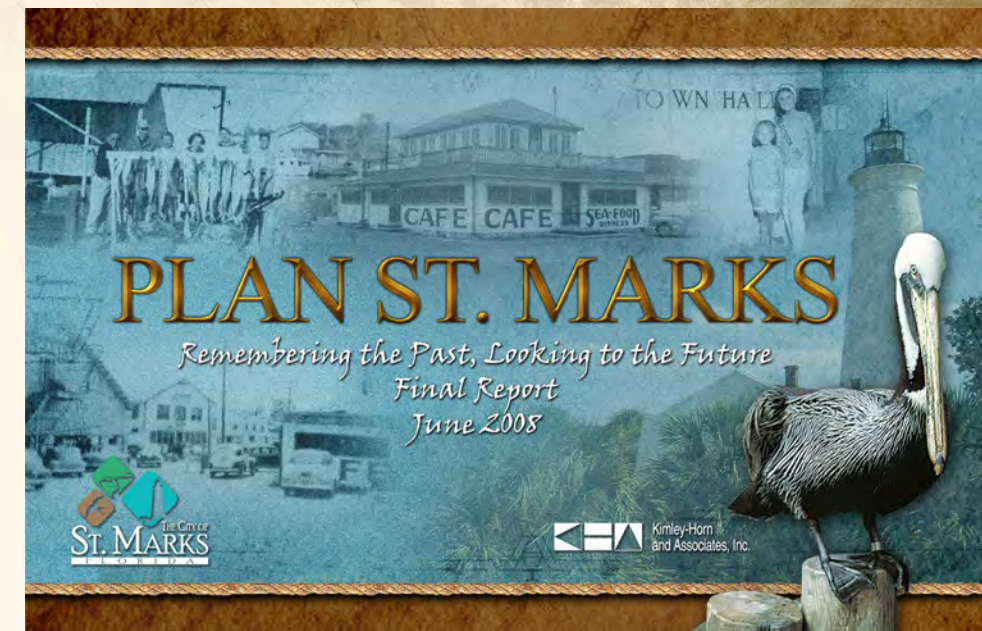
EXISTING CONDITIONS

Big Bend Maritime Center – Still in the planning process, the Big Bend Maritime Center will promote north Florida waterways and serve as an informational resource with a blueway launch site. The portion of the Florida Circumnavigational Saltwater Paddling Trail in Wakulla from Mashas Sands along the coast to the Refuge will be developed and marketed as the Apalachee Bay Maritime Heritage Paddling Trail. The first portion to be developed will be from Panacea to St. Marks, uniting two Waterfront Florida Communities and linking to the Big Bend Scenic Byway. Over time, the Big Bend Maritime Center will be a focal point of activity, with one of the houses on the property devoted to Apalachee Bay. This house will be equipped with charts, nature and heritage information, and parking for launching kayaks.

Capital to Sea Loop Trail – The Capital City to Sea Loop Trail, when completed, will be a 120-mile multiuse trail that will connect Leon, Wakulla, and Franklin Counties. The trail will utilize the existing St. Marks Trail and the completed sections of the Georgia Florida and Alabama (GF&A) Trail. The sections that will be in Wakulla County will be located along the following corridors:

1. Abandoned rail corridor – this section runs through the Apalachicola National Forest. This section will connect to the north via the existing GF&A Trail already constructed in Leon County and to the south in Franklin County.
2. Ochlockonee Bay Trail – this trail, already under construction, will serve to connect Sopchoppy to the Coast and Mashas Sands Park.
3. US 98 Corridor – this section will run from Mashas Sands Park all the way to St. Marks where it will connect with the St Marks Trail.

Wakulla County Evaluation and Appraisal Report (EAR) – According to the *Wakulla EAR*, there are not enough connected sidewalks or bicycle lanes due to the existing rural and suburban development patterns predominant throughout the County. However, there is a desire for an improved network of county wide multiuse bicycle and pedestrian trails. The *Wakulla County EAR* also noted that the needs of bicyclists and pedestrians are not being met through the existing *Comprehensive Plan* policies or the *Land Development Codes*.



EXISTING CONDITIONS



Existing Comprehensive Plan Policies

The existing Wakulla County Comprehensive Plan addresses bicycle and pedestrian facilities in the following policies:

Recreation and Open Space Element (ROSE)

Policy 1.4: Complete bicycle, pedestrian, and open space master plans for unincorporated areas of Wakulla County by 2015.

Objective 3: All public recreation facilities will provide pedestrian and bicycle facilities access.

Policy 3.1: The County shall require bicycle lanes, paved shoulders, or paved private roads in subdivisions to access parks and open space.

Economic Development Element (EDE)

Policy 3.1: The County shall pursue funding opportunities for the development of a bicycle, pedestrian and recreation facilities master plan.

Transportation Element (TE)

Policy 1.4: The County shall seek grant funding to supplement existing sources of revenue for the purpose of improving local streets, bicycle facilities and sidewalks.

Policy 1.5 #7: Required consideration of dedicated easements and improved pathways for use by bicyclists and pedestrians in all development plans in the Sustainable Community land use category.

Policy 4.3: The County shall coordinate with the FDOT to widen state roads for the accommodation of bicycle traffic needs.

Policy 4.4: The County shall develop a county-wide bicycle and pedestrian facilities master plan by 2012.

Policy 7.2: The County shall improve bicycle and pedestrian transportation through the development of a bicycle and pedestrian facilities master plan and through modifications to the Land Development Code.

Coastal Management Element (CME)

Policy 5.2: The County shall seek funding for the creation of a blueways master plan to encourage ecotourism and enhance the recreational opportunities for residents and visitors in Wakulla County.

Future Land Use Element (FLUE)

1.2.9 Sustainable Community:

1) Distinguishable features of a Sustainable Community may include pedestrian and unpaved bicycle trails

5(m) The Transit/TDM measures shall include, but not be limited to, provision of on-site park and ride facilities, implementation of measures identified in the Transit/TDM plan when developed, and incorporation of pedestrian and transit friendly design consideration.

(n) Each development shall be designed to incorporate an overall pedestrian/bikeway network.

Policy 1.2.11.1 Conservation Residential:

4) Specific Restrictions:

(a) Impacts to wetlands are permitted for roadway, pedestrian and utility crossings.

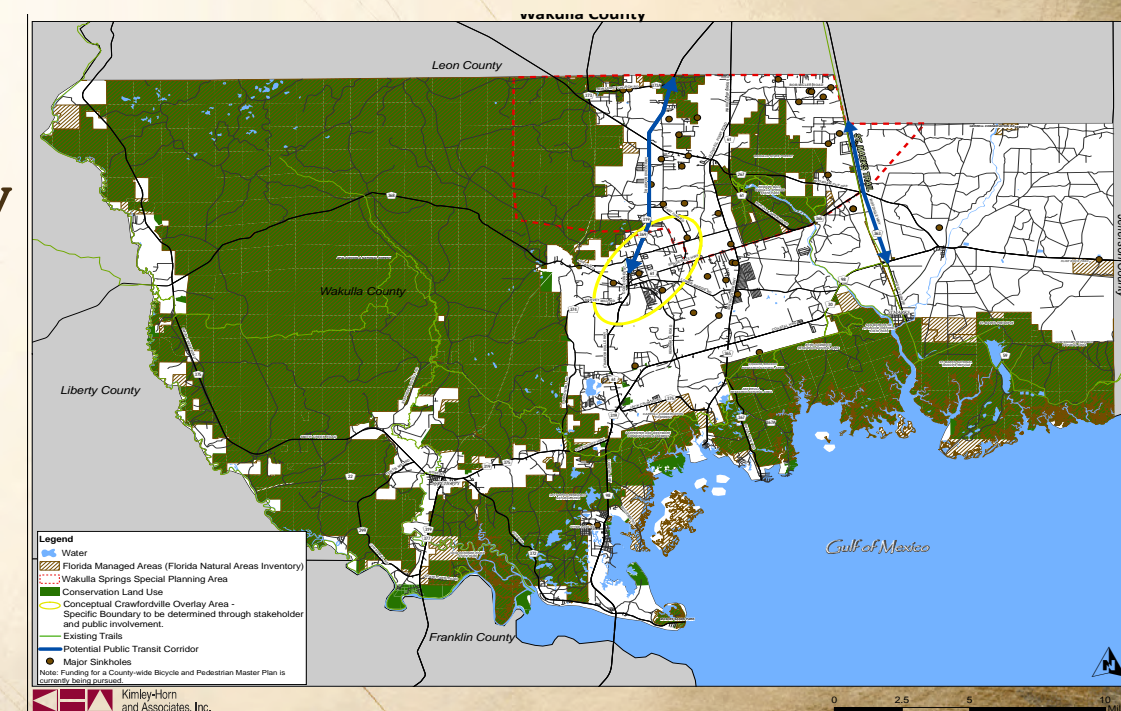
(e) Internal circulation system shall be designed to promote pedestrian and bicycle opportunities for residents

Public School Facilities Element (PSFE)

Objective 1: Assure existing and planned schools provide safe access to schools including sidewalks, bicycle paths.

Policy 1.8: School sites will assure safe access to schools through sidewalks and school crossing zones.

**Figure 7:
Wakulla Energy
Efficiency Map**





PUBLIC PARTICIPATION

Stakeholder Interviews

Before developing draft bicycle, pedestrian, and blueway facility recommendations, the consultant team performed a series of interviews with various stakeholders. Stakeholders consisted of representatives from agencies, organizations, and citizens groups with major influence on managing or implementing related projects and policies within the County. These stakeholders included representatives from:

- Big Bend Scenic Byways Corridor Management Entity
- Capital Region Transportation Planning Agency (CRTPA)
- Florida Department of Environmental Protection (FDEP) Office of Greenways and Trails (OGT)
- Florida Department of Transportation (FDOT) District Three
- Panacea Waterfronts Florida Community
- TnT Hideaway Outfitters
- The Wilderness Way Outfitters
- U.S. Forest Service
- State Forest Service
- Wakulla County Chamber of Commerce
- Wakulla County Parks and Recreation Department
- Wakulla County Planning and Community Development Department
- Wakulla County School District
- Wakulla County Sheriff's Department
- Wakulla County Tourism Development Council
- Dog Hunters Association
- City of St. Marks

A summary of the stakeholder interviews is included as Appendix A.

Advisory Committee

To organize and guide the development of this Bicycle, Pedestrian, and Blueways Master Plan, an advisory committee was formed to provide input and guidance. Members of the advisory committee consisted of representatives of city governments, the Wakulla County Tourism Development Council, Wakulla County School Board, and local citizens. By means of various meetings throughout the life of the project, this group provided additional local knowledge and perspectives on bicycle, pedestrian, and blueway facilities and policies.

**Bicycle and Pedestrian Facilities Master Plan**

Draft Master Plan Report

- Existing Conditions and Gaps Analysis
- Project Recommendations
 - Multiuse trails, pedestrian, crosswalk, school safety plans
 - Policies/performance measures
 - Design standards
- Multiuse Trail Feasibility Report
- Implementation Plan/Funding/Cost Estimates
- Marketing Plan & Tools
- Final presentation to BOCC for approval

**Bicycle and Pedestrian Facilities Master Plan**

Goals, Objectives & Policy Needs

- Development of policy that supports bicycling and walking
- Policies that support Ecotourism
- Performance Measures



PUBLIC PARTICIPATION



Project Newsletter #1

A newsletter was created to provide an overview of the project, details on how the public could stay involved in the project, and information about the public meeting. The newsletter also included information about the project's public workshop. The newsletter was available in printed format as well as electronically on the Wakulla County website. A copy of Newsletter #1 is included as Appendix B.

Public Workshop

A public workshop was held on February 16, 2012, at the Wakulla County Senior Center and had over 40 attendees. At the workshop existing conditions and preliminary draft recommendations were presented. The preliminary draft recommendations included:

- Draft policies
- Draft bicycle facility recommendations
- Draft pedestrian facility recommendations
- Draft blueway facility recommendations
- Draft safe routes to schools improvements
- Draft wayfinding and signage recommendations and design concepts

The workshop was advertised in the local newspaper, on the Wakulla County website, through a series of email blasts to local businesses and citizen groups, as well as by word of mouth. During the workshop, a short presentation was given summarizing the steps taken up to that point with opportunity for the public to ask questions and provide feedback. Following the presentation, those in attendance were asked to break into four breakout groups, each consisting of approximately 12 people. The breakout groups allowed the public an opportunity to comment on, refine, and prioritize the draft recommendations and add additional recommendations not yet suggested. Attendees were also provided with comment forms to provide additional input into the project. Input received from the public during the workshop was used to further refine the projects included in this Bicycle, Pedestrian, and Blueways Master Plan.

Wakulla County Board of County Commissioners Workshop

A workshop was held with the Wakulla County Board of County Commissioners on May 17, 2012. During the workshop, a presentation was provided to the Board detailing the draft recommendations included in the Wakulla County Bicycle, Pedestrian, and Blueways Master Plan. Input received during the workshop was used to refine and finalize the recommendations included in the Master Plan.

Adoption of the Wakulla County Bicycle, Pedestrian, and Blueways Master Plan

The Wakulla County Bicycle, Pedestrian, and Blueways Master Plan was adopted by the Wakulla County Board of County Commissioners on June 18, 2012.

Newsletter #2

A second newsletter will be distributed after the completion of the Wakulla County Bicycle, Pedestrian, and Blueways Master Plan and will serve as the executive summary of the report.

A copy of the public workshop agenda and the comment form provided to the public is provided in Appendix C



Commissioners Breaking Ground on the Ochlockonee Bay Trail



PUBLIC PARTICIPATION



Public Meeting Attendees



Public Meeting

MASTER PLAN ELEMENTS



MASTER PLAN ELEMENTS

The recommendations included in this Bicycle, Pedestrian, and Blueways Master Plan are organized into the following Master Plan Elements:

- Bicycle Element
- Pedestrian Element
- School Connectivity Element
- Blueways Element
- Wayfinding Signage Element

Each of these elements include facility and policy recommendations that were developed based on data analysis, stakeholder input, and public feedback. The recommendations include a proposed network of bicycle and multiuse facility connections, identified pedestrian needs, identified blueway needs, an update to the existing County policies and design guidelines, as well as recommended performance measures to guide the county through implementation. The proposed network provides connections to major activity centers, parks, educational facilities, shopping areas, commercial zones, and the local municipalities throughout the County.



Newport Park Boat Launch



Section of US 319



MASTER PLAN ELEMENTS

Ochlockonee Bay Trail



St. Marks Trail- Trail Head



Launching on the Wakulla River



BICYCLE ELEMENT



The following bicycle and multiuse transportation trail recommendations are based on data and analysis, stakeholder interviews, public involvement, and the consultants professional planning and engineering judgment. Together, the recommendations included in this Bicycle Element form a network of facilities that improve connectivity and provide for transportation alternatives throughout Wakulla County. The recommendations connect the major commercial areas as well as important locations within the county, such as Wakulla Springs and the St. Marks Trail. Many of the bicycle facility recommendations support and complement the Capital City to Sea Loop Trail.

BICYCLE AND MULTIUSE FACILITY RECOMMENDATIONS

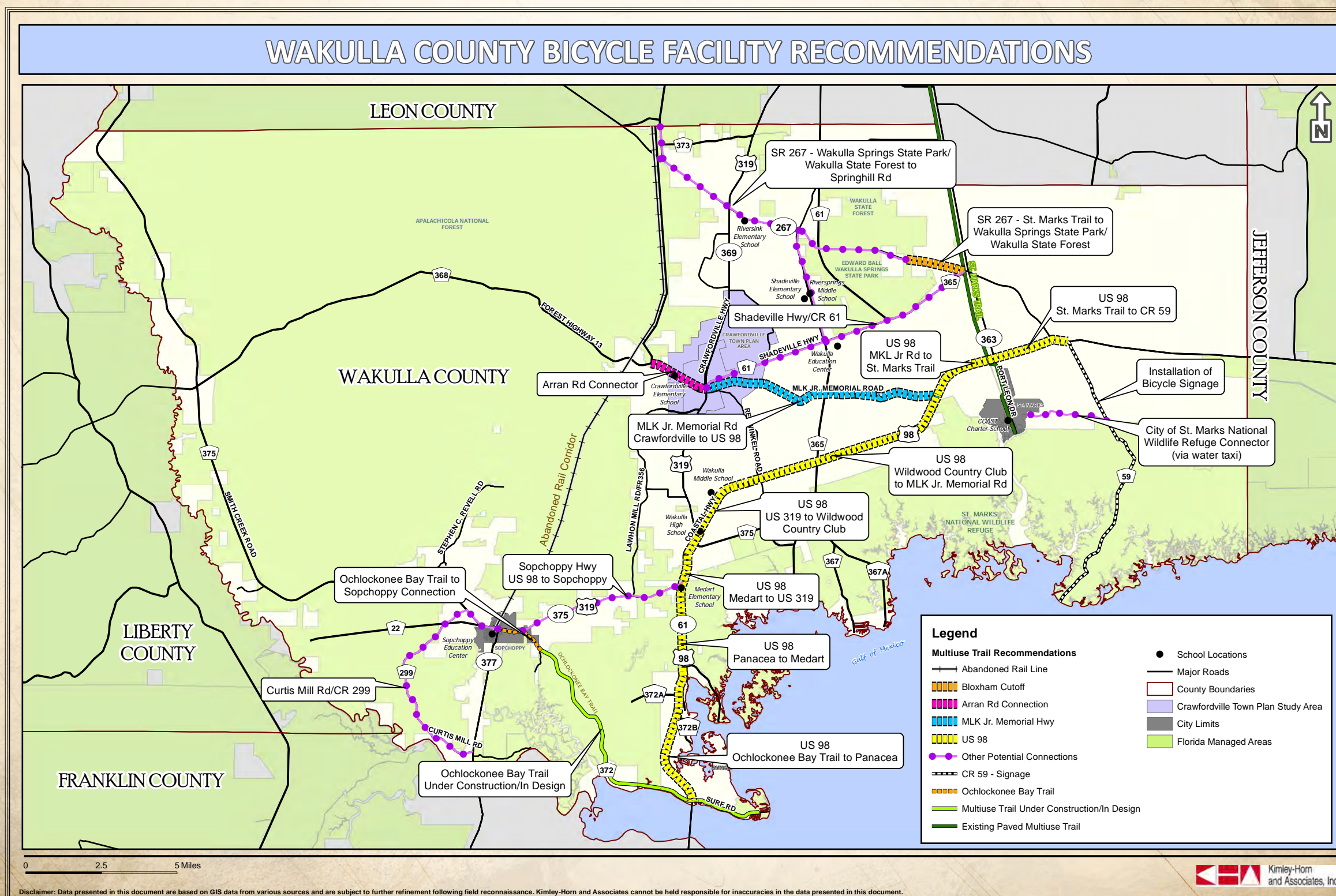
The county currently has few roadways with designated bike lanes or paved shoulders that are suitable for bicyclists to comfortably share the road with automobiles. Through the development of this Master Plan, a series of corridors were identified as potential locations for multiuse trails or bicycle facilities enhancements.

From the data collection, a preliminary list of recommendations were developed. These recommendations were presented at a public meeting where attendees were asked to provide feedback, refine draft recommendations, suggest additional recommendations, and prioritize projects. Based on this public participation, the draft recommendations were refined and included in this element of the Master Plan. The refined recommendations were presented to the Advisory Committee and the Board of County Commissioners. The revised bicycle and multiuse trail recommendations are broken down into specified segments that can be implemented as a whole or in phases, depending on priorities, funding, and levels of usage. A feasibility report has been completed for the highest priority corridor and is outlined in the implementation section of this Master Plan. The recommended bicycle and multiuse facility network is illustrated in Figure 8. The following is a list of the recommendations for the bicycle facilities.

- 1) Ochlockonee Bay Trail to Sopchoppy Connection
- 2) US 98 Corridor – from Surf Road to CR 59
 - a. Segment 1 – US 319 to Wildwood Golf Course
 - b. Segment 2 – Wildwood to MLK Jr. Memorial Highway
 - c. Segment 3 – MLK Jr. Memorial Road to St. Marks Trail
 - d. Segment 4 – St. Marks Trail to CR 59
 - e. Segment 5 – Surf Road to Panacea
 - f. Segment 6 – Panacea to Medart (signage and road makings only)
 - g. Segment 7 – Medart to US 319 US 98 intersection (Signage and road markings only)
- 3) Martin Luther King Jr. Memorial Road
- 4) Arran Road
- 5) SR 267 from St. Marks Trail to abandoned rail corridor
 - a. Segment 1 – St. Marks Trail to Wakulla Springs State Park
 - b. Segment 2 (Potential Connection) – Wakulla Springs State Park to abandoned rail corridor
- 6) Shadeville Highway (Potential connection)
- 7) Sopchoppy Highway, US 319 from US 98 to Sopchoppy (Potential connection)
- 8) Curtis Mill Road (Potential connection)
- 9) CR 59 (Signage and road markings only)



Figure 8: Bicycle Facility Recommendations



BICYCLE ELEMENT



Ochlockonee Bay Trail to Sopchoppy Connection

The Ochlockonee Bay Trail is an ongoing trail project that has multiple phases in different stages of being funded, designed, and built. For this plan it is the first recommendation that final funds be secured to complete Phase 5a. Additional funds that become available should be used to complete Phase 5b.

Phase 5a

This segment, which is already funded through design and partially funded for construction will connect the Ochlockonee Bay Trail to US 319 via a 10-12 foot multiuse path. This corridor can be seen in Figure 9.

Phase 5b

This segment will run from the multiuse trail to the historic train depot in Sopchoppy. If possible this segment should be implemented as a 10-12 foot multiuse trail, but because of limited right-of-way, this segment will require marked paved shoulders and "Share the Road" signage.

Sopchoppy Trailhead

Within the City of Sopchoppy a trailhead should be constructed across the street from the historic train depot. It is planned for the train depot to become a museum and having the museum and the trail head in close proximity will provide for added exposure to each facility.

Trail Signage



Trail Signage





BICYCLE ELEMENT

Figure 9: Ochlockonee Bay Multiuse Trail Phase 5



BICYCLE ELEMENT



Corridor 2 - US 98, Segment 1 - (2 miles)

As illustrated in Figure 10, Segment 1 begins at the intersection of US 98 and US 319 and ends at the driveway of the Wildwood Country Club. This corridor was first identified as a need by the Wakulla County School Board representative. It was identified due to the close proximity to Medart Recreation Park, which is located off of US 98. The Medart Recreation is the largest park in the county and has numerous courts and playing fields. Because of this, many students walk there after school. Currently, to walk there, students must walk on the side of the road with no access to sidewalks of any kind. Implementing a 10-12 foot multiuse trail would give students a safe way to access the park. Another important aspect of this trail is that Wakulla High School's Golf team uses the Wildwood Golf Course to practice on; having a safe location to walk from school to practice would be very beneficial. Additionally, the high schools cross country and track teams would have a facility to practice on that is not on the shoulder of the roadway. In order to make this connection safer for the users, it is also recommended that an enhanced pedestrian crosswalk be added from Wakulla High School to the gas station across the street, this would not only serve as a connection to the paved trail, but also as a safe way for students to access the gas station without having to jaywalk.

Corridor 2 - Highway 98, Segment 2 - (7.9 miles)

This segment begins at the driveway to Wildwood Golf Course and continues on to MLK Jr. Memorial Road. Measuring 7.9 miles, this segment crosses a majority of the county and will connect to the proposed multiuse trail on MLK Jr. Memorial Road. The main function of this segment is to extend connections across the county in accordance with the Capitol City to Sea Loop Trail. This segment also connects to the proposed MLK Jr. Memorial Road Trail. This connection would provide a connection from Crawfordville to US 98 via MLK Jr. Memorial Road.

Corridor 2 - US 98, Segment 3 - (2.3 miles)

As illustrated in Figure 10, Segment 3 will begin at the intersection of US 98 and MLK Jr. Memorial Road and terminate at the St. Marks Trail. This segment was identified by stakeholders because it would connect the proposed multiuse trails along US 98 to the St. Marks Trail. Also along this segment is the lower bridge of the State-designated Wakulla River Paddling Trail as well as TnT Hideaway, a local canoe and kayak outfitter. It is recommended for this segment that a 12-foot multiuse path be constructed along US 98. This segment was also identified as being part of the Capital City to Sea Loop Trail, a regional trail connection that has been supported by the Wakulla County Board of County Commissioners. and the Capital Region Transportation Planning Agency (CRTPA).

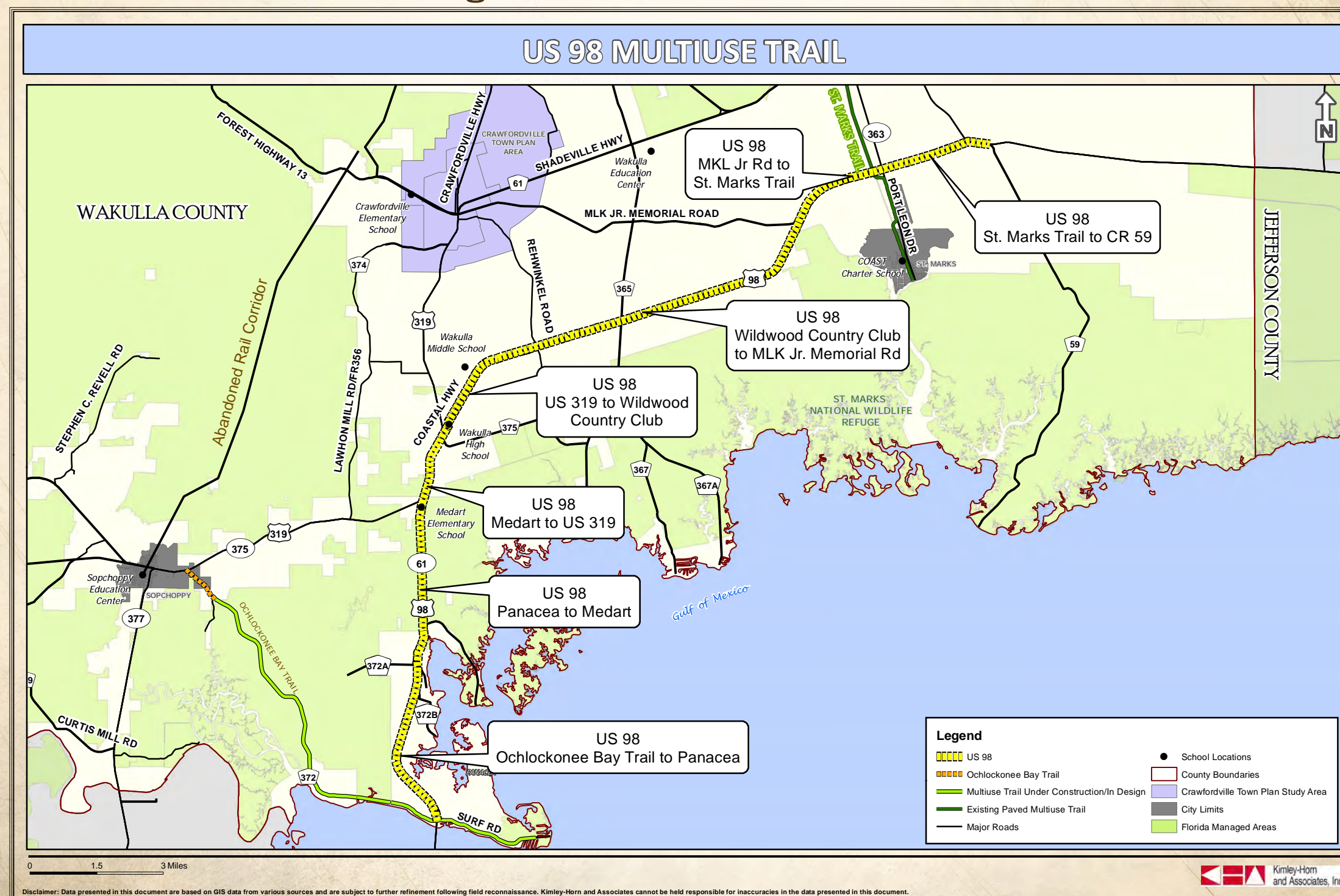


Section of US 98



BICYCLE ELEMENT

Figure 10: US 98 - Phases 1-7



BICYCLE ELEMENT



Corridor 2 - US 98, Segment 4 - (2.5 miles)

This segment extends from the St. Marks Trail to CR 59 near Newport Park and connects to the entrance of the St. Marks National Wildlife Refuge. This segment should be constructed as a 12-foot multiuse trail and would connect users of the proposed US 98 multiuse trail and the existing St. Marks Trail with CR 59. Making this connection was identified to be important by numerous stakeholders because of the popularity of biking along CR 59 in the St. Marks National Wildlife Refuge. Additionally, this segment connects to the campground at Newport Park, which would provide more ecotourism options for the County.

Corridor 2 - US 98, Segment 5 - (1.5 miles)

This segment begins at the intersection of US 319 and US 98 and extends south through Medart, terminating where US 319 and US 98 split. Along this corridor it was recommended that a 10-12 foot multiuse trail be implemented. This corridor would add an additional segment to the overall US 98 corridor as well as provide the residents of Medart and students at Medart Elementary with a designated trail. This corridor is also part of the Capital City to Sea Loop Trail and would further extend the trail along US 98.

Corridor 2 - US 98, Segment 6 - (2.8 miles)

This segment begins where US 319 and US 98 split in Medart and continues to Bottoms Road. Due to the natural features that limit the right-of-way along this corridor a multiuse trail is not feasible in this section. Therefore, it is recommended that signage be added to the corridor to indicate to vehicles that bicyclists may be present. Sign options include “Share the Road” or the bicycle symbol sign. Pavement markings should also be added to the five foot paved shoulders. If possible the speed limit along this segment should also be lowered to increase the ability for vehicles to slow down when a bicyclist is present. Due to the environmental constraints a multiuse trail is not feasible, however, when funding is available, it may be possible to build an elevated boardwalk that would not damage the wetlands.

Corridor 2 - US 98, Segment 7 - (4.8 miles)

This segment would begin at Bottoms Road in Panacea and continue to the Ochlockonee Bay Trail at Surf Road/Mashes Sands Road. This segment would complete the connection of the St. Marks Trail to the Ochlockonee Bay Trail as well as provide the county with over 46 miles of multiuse trails. This segment was also identified by stakeholders to be important because it passes through the city of Panacea and would provide residents with increased mobility options. Along this segment, it is recommended that a 10-12 foot multiuse trail be constructed.



Section of US 98 in Panacea



BICYCLE ELEMENT



Corridor 3 - Martin Luther King Jr. Memorial Road, Segment 1 (4.2 miles)

This segment begins at the intersection of MLK Jr. Memorial Road and US 319 in Crawfordville and terminates at Spring Creek Highway. It is proposed that a 10-12 foot multiuse trail be located on the most cost feasible side of the road. This segment forms an important connection between downtown Crawfordville and the neighborhood of Wakulla Gardens. During the public workshop, feedback received indicated that this corridor would provide an important transportation option and would increase mobility for residents of the County. Additionally, this segment is an important connection because it will eventually be part of the connection that links the St. Marks Trail to downtown Crawfordville via portions of the US 98 multiuse trail. The entire MLK Jr. Memorial Road corridor can be seen in Figure 11.



MLK Jr. Boulevard Looking East

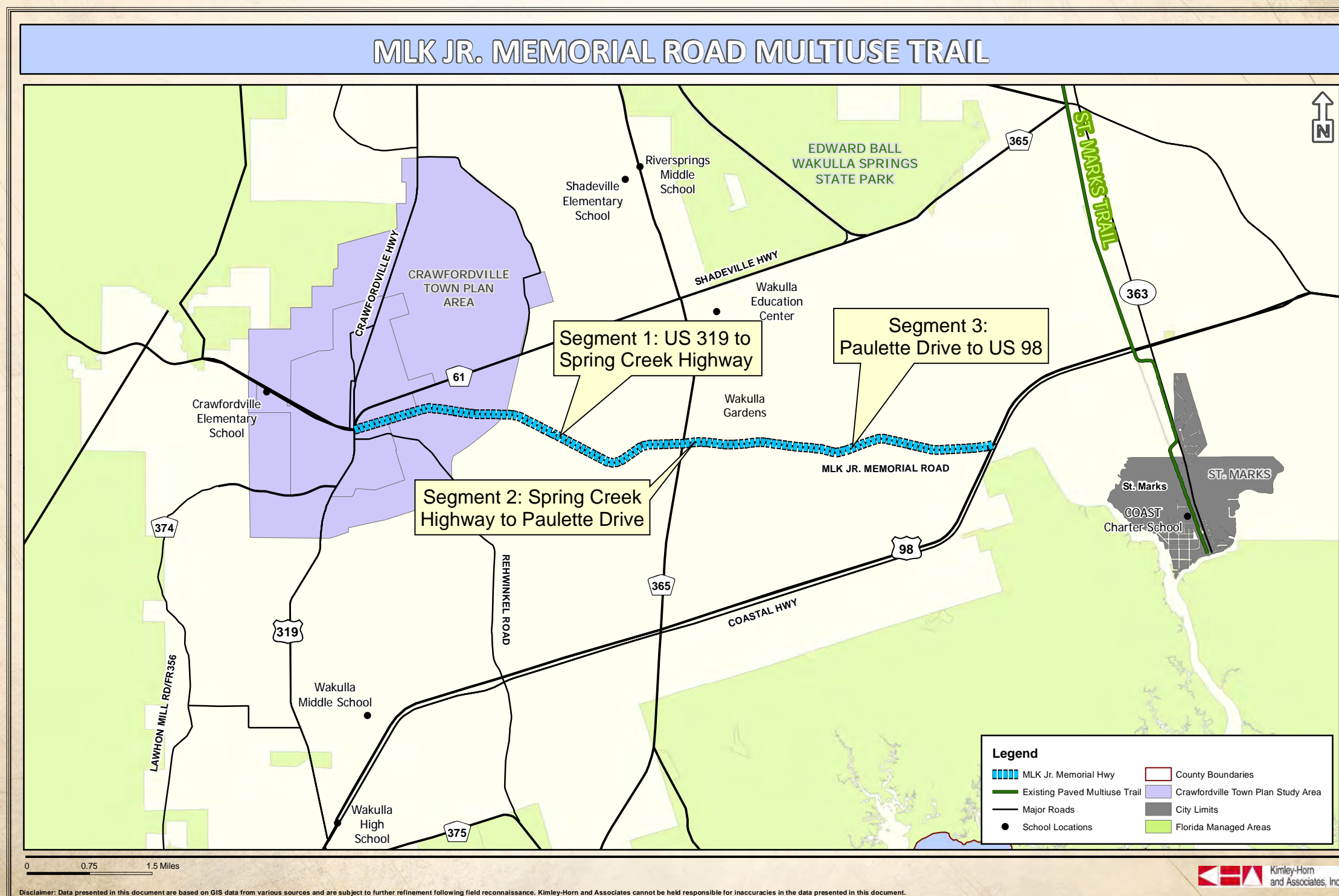


MLK Jr. Boulevard Looking East



BICYCLE ELEMENT

Figure 11: Corridor 3 Segments 1-3



BICYCLE ELEMENT



Corridor 3 - Martin Luther King Jr. Memorial Road, Segment 2 (0.9 miles)

This segment begins at Spring Creek Highway and terminates at Paulette Drive. Here it is recommended that signage and shared use pavement markings (sharrows) be implemented to alert motorists of the potential for bicyclists to be on the road. Signage is recommended due to the fact that this segment cuts through the Wakulla Gardens neighborhood which has very narrow rights-of-way and property lines that reach close to the road. In addition to adding signage, it is recommended that the speed limit be lowered to 20-30 mph along this segment. Not only would this provide a safer environment for bicyclists, but it would also provide safer conditions for the residents of the Wakulla Gardens Community.

Wakulla Gardens Looking East



Wakulla Gardens Looking East



Corridor 3 - Martin Luther King Jr. Memorial Road, Segment 3 (2.9 miles)

The final segment of Corridor 3 starts at Paulette Drive and terminates at US 98. For this corridor it is recommended that a 10-12 foot multiuse trail be constructed on the most cost feasible side of the road. This segment has beautiful natural features that form a canopy street so therefore implementing the trail along the road would be difficult. Because of this it is recommended that the trail be built along an existing power line easement that runs near the road. This segment would provide the final connection between downtown Crawfordville and the proposed US 98 which ultimately connects to the St. Marks Trail. Having significant connections like this provide the county with a greater ability to market itself as a bicycling destination as well as providing the residents of Wakulla Gardens with multimodal transit options.



**Powerline Easement and Canopy Road
Corridor along MKL Jr. Memorial Rd.**



BICYCLE ELEMENT

Corridor 4 - Arran Road (3.3 miles)

This corridor begins at the intersection of Arran Road and US 319 and terminates at a future trailhead that will be located near the intersection of Forest Highway 13. The trailhead will be located along the proposed Capital City to Sea Loop multiuse trail. This connection, in addition to linking to another future regional trail, will also serve the residents of Wakulla County and students at Crawfordville Elementary School with a convenient multimodal transportation option. Currently, the FDOT 5-year work program identifies FPID 431744-1 which would provide for the construction of a sidewalk along CR 368 (Arran Road). The sidewalk would run from east of Lura Lane to the west of Towles Road with a total length of 0.8 miles. It is recommended that this sidewalk be constructed as a wide asphalt sidewalk so that it can become part of the multiuse trail system in the future. There is currently a sidewalk that runs along the south side of Arran Road from US 319 to in front of the Wakulla County School Board Offices. This corridor is illustrated in Figure 12.

Sidewalk in Front of the Wakulla County School Board Offices

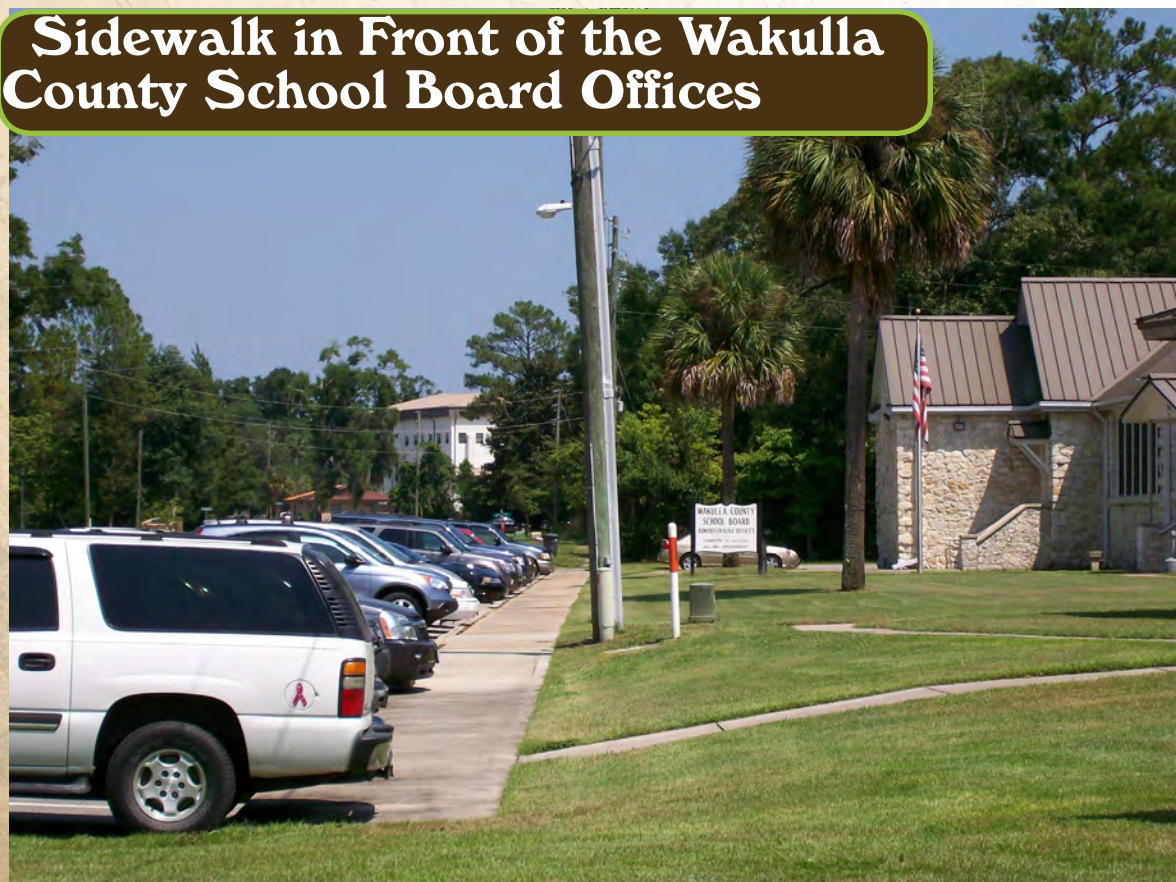
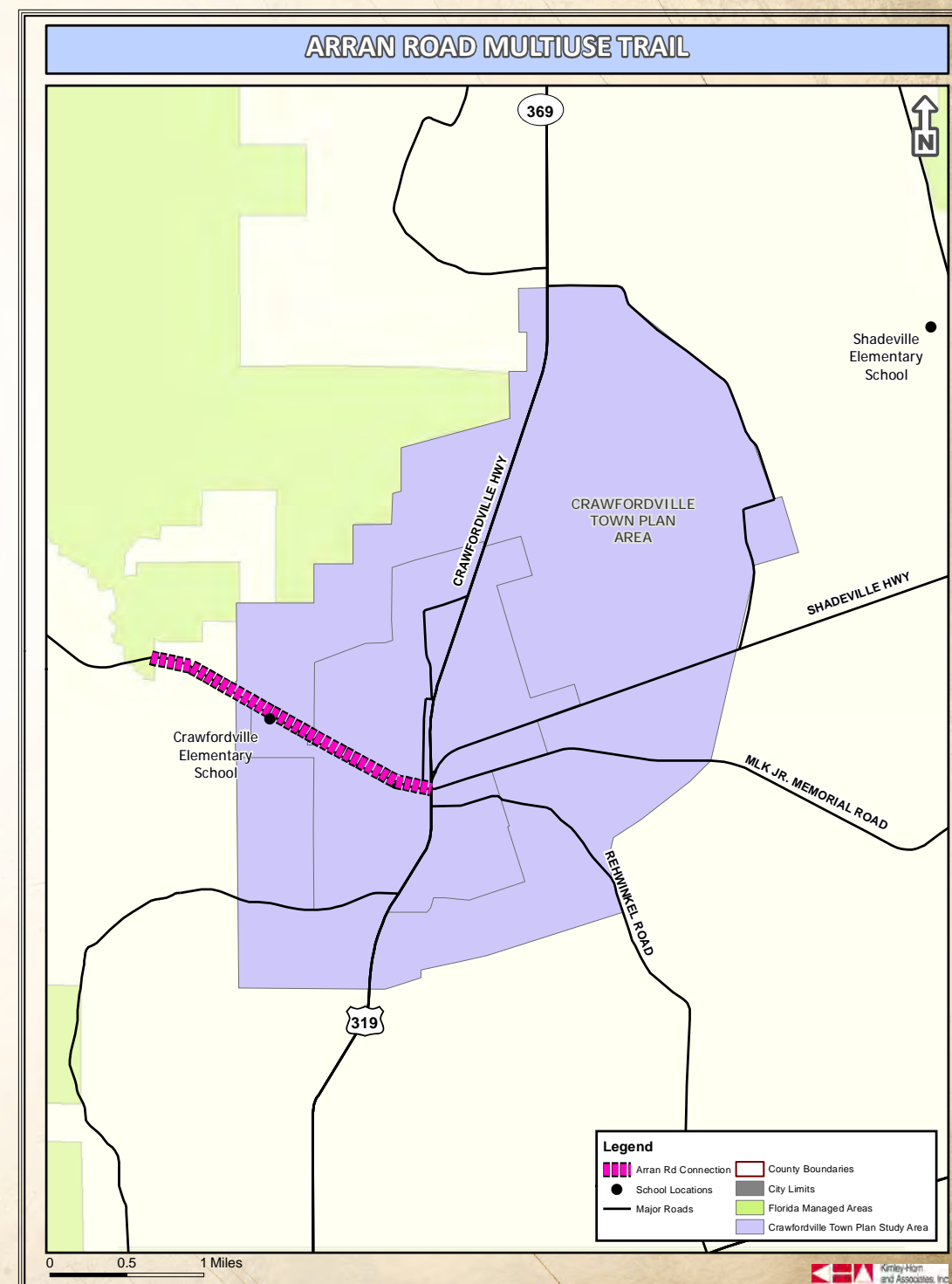


Figure 12: Corridor 4 - Arran Road



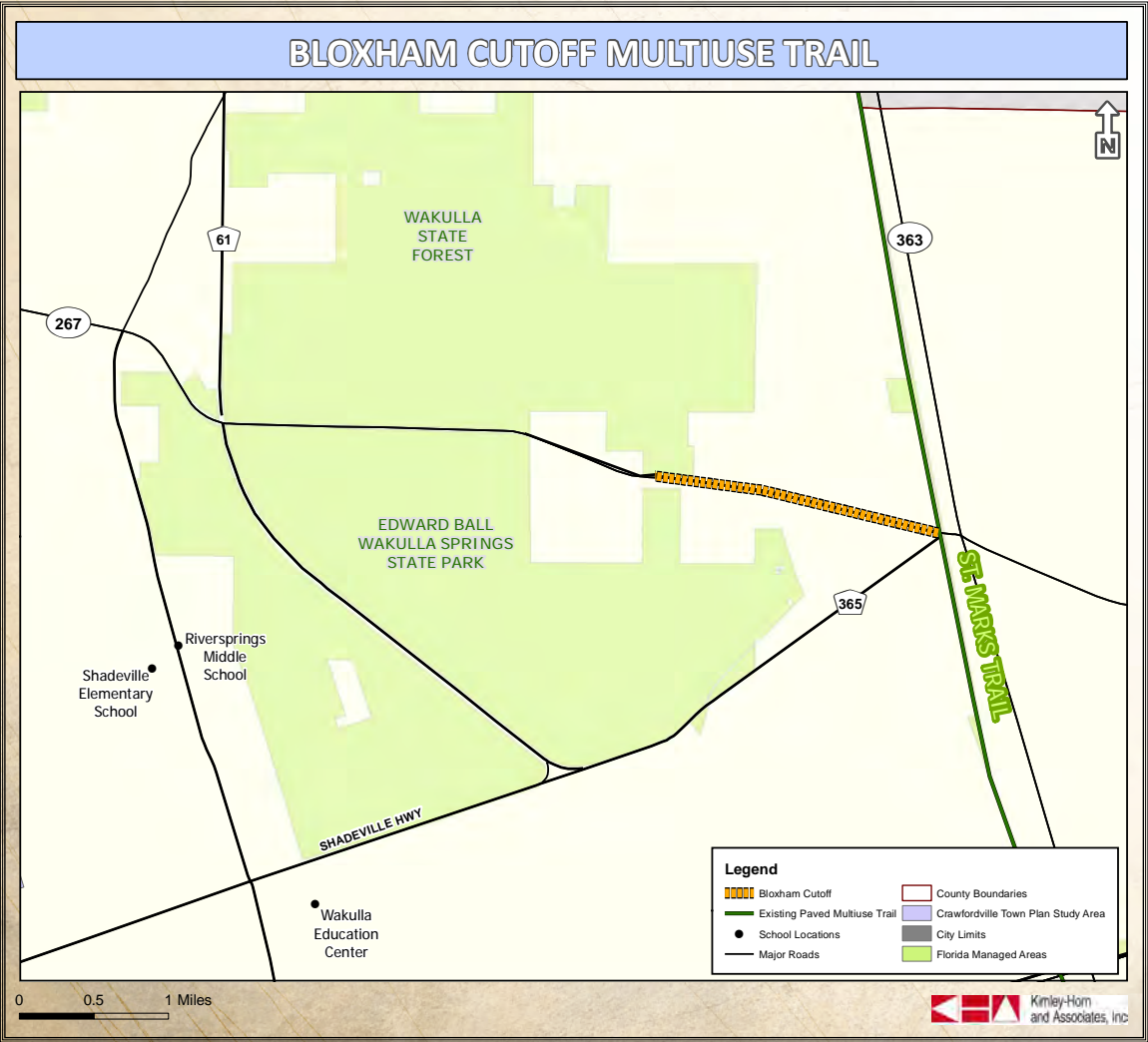
BICYCLE ELEMENT



Corridor 5 - SR 267 (2.9 miles)

This corridor begins at the St. Marks Trail and terminates at the existing trailhead location in the Wakulla State Forest on Rosa Shingles Road. For this corridor it is recommended that a 10-12 foot multiuse trail be constructed on either the north or south side of the road. This connection was identified by numerous stakeholders to be important because it connects the St. Marks Trail with existing mountain biking trails, hiking trails, and the entrance to Edward Ball Wakulla Springs State Park. This connection would also be well served by the existing trail head at the western terminus. Having this connection would give Wakulla County the ability to further market itself as a multimodal bicycling destination. There is also a possible option to have the trail be located in Wakulla Springs State Park or the State Forest. When designing this corridor the most cost feasible option should be used. Corridor 5 is illustrated in Figure 13.

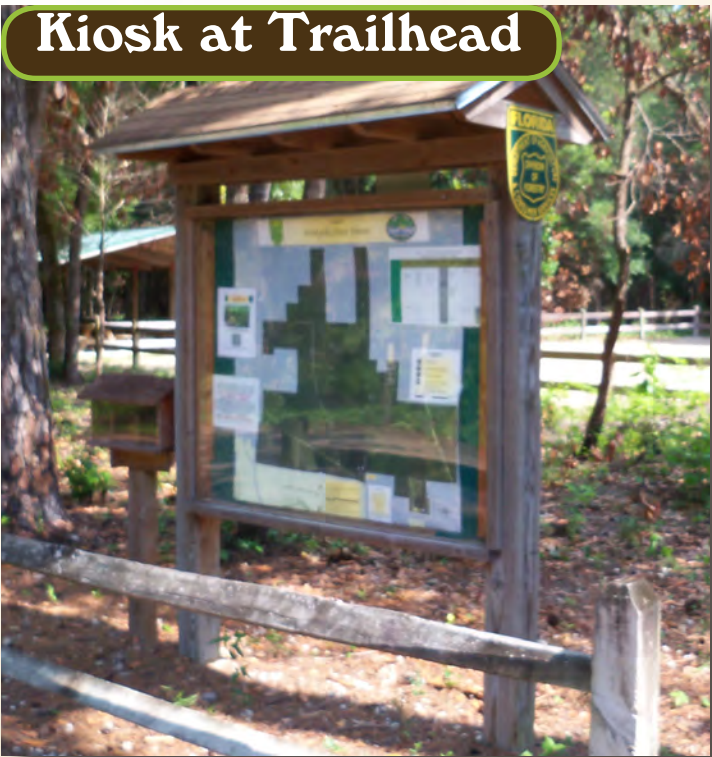
Figure 13: Corridor 5 - SR 267



SR 267 Looking East



Kiosk at Trailhead



Trailhead in Wakulla State Forest



BICYCLE ELEMENT

Future Corridors and Connections

The previously recommended projects are made up of multiuse trail corridors that would provide instant mobility options for the county by linking major population centers with existing trail facilities and commercial areas. The following recommendations (as illustrated in Figure 14) are suggestions for implementation in the future to add connectivity to the network, but were not considered immediately necessary facilities. The long-term recommendations for Wakulla County are:

- 1) Shadeville Highway from US 319 to the St. Marks Trail
- 2) Spring Creek Highway from SR 267 to Shadeville Highway
- 3) SR 267 from the abandoned rail corridor to Rosa Shingles Road
- 4) Curtis Mill Road
- 5) Sopchoppy Highway (US 319 from US 98 to Sopchoppy)
- 6) St. Marks Wildlife Refuge to the City of St. Marks
- 7) CR 59 signage and pavement

Shadeville Highway

This corridor would begin where Shadeville Highway intersects US 319 and would terminate at the St. Marks Trail. This corridor was suggested as a future link due to its direct access between Crawfordville and the St. Marks Trail. This corridor would also serve as a link to the proposed Bloxham Cutoff Trail (Corridor 5). However, due to severe right-of-way limitations along this corridor implementing a multiuse trail of any width would be very difficult and costly. In the future, if funding were to be made available, wider paved shoulders designated as bicycle lanes along this corridor should be implemented due to the increased connectivity it would bring as well as the added benefits of providing access to the north bridge access point on the Wakulla River.

Spring Creek Highway

This corridor would begin at the intersection of Spring Creek Highway and SR 267 and terminate at Shadeville Highway. This corridor is recommended so that a loop could be created to provide cyclists with a shorter route within the County. It would also provide residents of Wakulla Gardens with multimodal access to Shadeville Elementary and River Springs Middle.

Shadeville Hwy Typical Section



Along this corridor it is recommended that a 10-12 foot multiuse trail be implemented.

SR 267/Bloxham Cutoff Road

This corridor would begin at the abandoned rail corridor located on the edge of the Apalachicola National Forest near the edge of the Leon County line and end at the trailhead at Rosa Shingles Road. The abandoned rail corridor has been identified as a future multiuse trail that will be part of the Capital City to Sea Loop Trail. The SR 267 corridor will connect users of the proposed Capital City to Sea Loop Trail with Wakulla State Forest, Edward Ball Wakulla Springs State Forest, and the St. Marks Trail. Implementing a corridor of this length would be very costly and due to some right-of-way constraints a multiuse trail might not be feasible in all areas. However, if funding is ever available this corridor would provide mobility options as well as connect many key features in the County. Along this corridor it is recommended that a 10-12 foot multiuse trail be implemented. This connection would link the St. Marks Trail with trails in the western part of the County including an important connection with Trout Pond Trail in Leon County.

BICYCLE ELEMENT



Curtis Mills

The Curtis Mills Road corridor begins to the west of the City of Sopchoppy at the intersection of Curtis Mills Road and Smith Creek Road and terminates where Curtis Mills Road intersects Sopchoppy Highway (US 319). This corridor was identified to provide recreational opportunities to residents of Sopchoppy by providing a 10-12 foot multiuse trail through the national forest. This corridor would also act as an extension of the Ochlockonee Bay Trail.

Sopchoppy Highway

This corridor begins where US 319 splits from US 98 in Medart and terminates at Municipal Avenue. This is recommended as a future connection because it would connect the proposed US 98 multiuse trail with the City of Sopchoppy. Having this connection would provide users of the trail facility with increased routes and distance options as well as bring economic development to Sopchoppy.

St. Marks Wildlife Refuge to St. Marks Connector

This corridor will follow the Florida National Scenic Trail path from CR 59 to the City of St. Marks city limits. Along this corridor the trail passes the St. Marks River, at this location it is recommended that an agreement be made with local marinas and outfitters to provide a water taxi service for bicyclists on the trail.

CR 59

This corridor begins at the intersection of CR 59 and US 98 and terminates at the coast near the St. Marks Lighthouse. A large portion of this corridor runs through the St. Marks National Wildlife Refuge, which makes additional construction not feasible. Therefore, along this corridor it is recommended that signage and pavement markings be added to alert vehicles of the presence of bicycles.

Heritage Village Connection

Currently, the Wakulla County Historical Society has plans to build a Heritage Village. It is suggested that a multiuse trail connection be made from Bloxham Cutoff to the corner of US 319 and Zion Hill Road, where the Heritage Village is currently planned to be located.



Spring Creek Hwy Typical Section

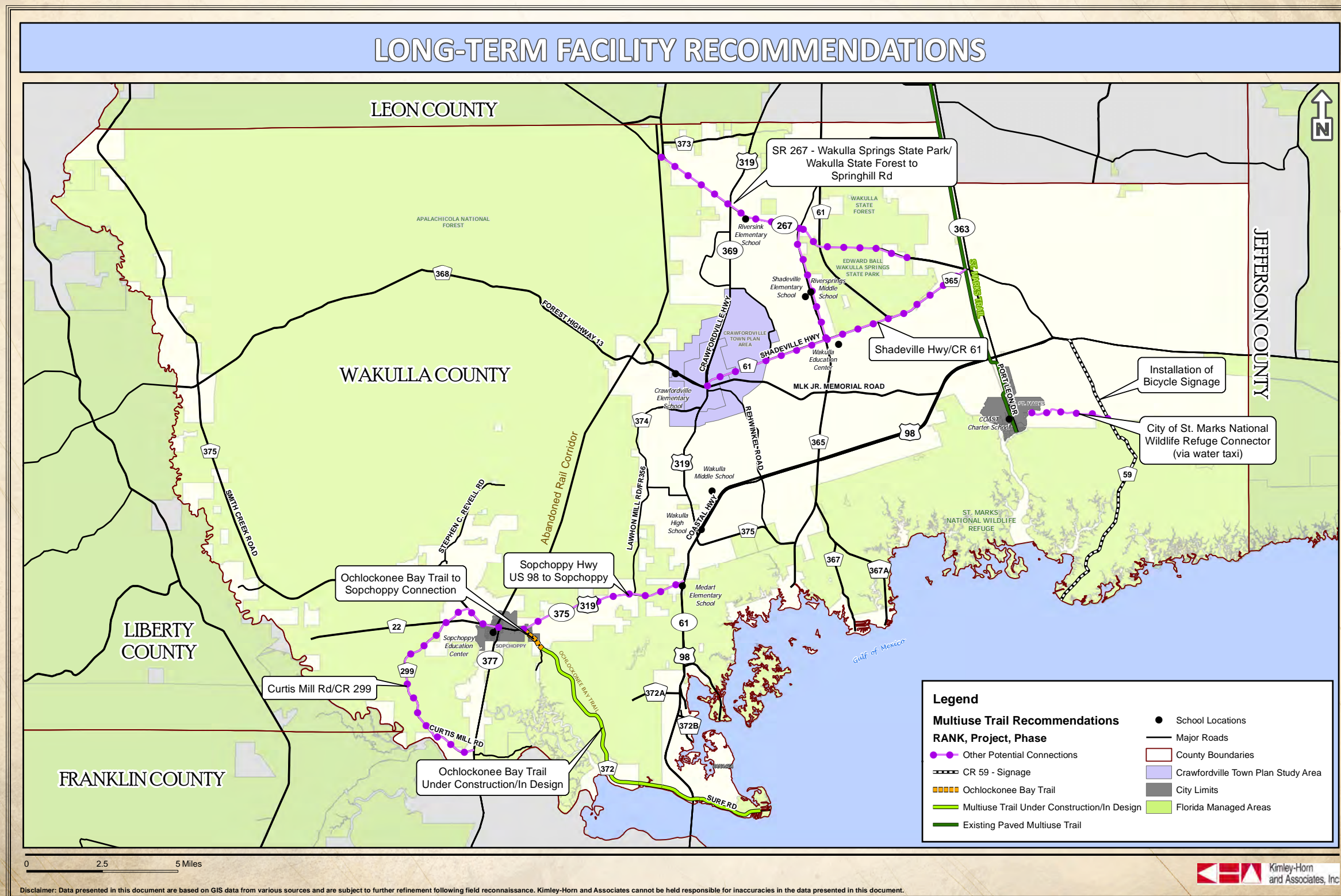


View From CR 59 of the Gulf



BICYCLE ELEMENT

Figure 14: Long-Term Recommendations



BICYCLE ELEMENT



Figure 15: Multiuse Trail Cost Estimates

Segment	Recommendation/Description	Length	Improvement(s)	Coordination with Other Agencies/Property Owners	Part of Capital City to the Sea Loop Trail	Funding Source	Next Steps for Project Implementation	Cost/Mile	Estimated Cost of Project
Multiuse Trails									
Ochlockonee Bay Trail - Phase 5	Phase 4 to Sopchoppy Highway	0.95 mi.	8-10 foot multiuse trail	Wakulla County, City of Sopchoppy	No	CRTPA, CRTPA Capital City to the Sea Loop Trail Funding, Transportation Enhancement Grant, General Funds	Construction	\$340,073	\$323,069
US 98 Corridor	Ochlockonee Bay Trail to CR 59 (Lighthouse Road)	24 mi.	10-12 foot multiuse trail	FDOT	Yes	CRTPA, CRTPA Capital City to the Sea Loop Trail Funding, Transportation Enhancement Grant, General Funds	Design	\$340,073	\$8,161,752
Martin Luther King Jr. Memorial Road	US 319 to US 98	6.2 mi.	10-12 foot multiuse trail	Wakulla County, homeowners, utilities	No	Recreational Trails Program, Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$2,108,453
SR 267 Connector	St. Marks Trail to Rosa Shingles Road	2.9 mi.	10-12 foot multiuse trail	FDOT	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$986,212
Arran Road Connector	US 319 to Forest Highway 13	3.3 mi.	8-10 foot multiuse trail	Wakulla County, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$1,122,241
Spring Creek Highway	SR 267 to Shadeville Highway	4.0 mi.	8-10 foot multiuse trail	FDOT, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$1,360,292
Shadeville Highway	US 319 to St. Marks Trail	9.4 mi.	8-10 foot multiuse trail	FDOT, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$3,196,686
Sopchoppy Highway	US 98 to Railroad Street	5.8 mi.	8-10 foot multiuse trail	FDOT, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$1,972,423
Curtis Mills Road	Railroad Street to US 319	8.0 mi.	8-10 foot multiuse trail	Wakulla County	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$2,720,584
SR 267 Connector	GF&A Trail to Rosa Shingles Road	9.4 mi.	8-10 foot multiuse trail	FDOT, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$3,196,686
CR 59 St. Marks Connector	CR 59 to Port Leon Drive	1.5 mi.	8-10 foot multiuse trail	Wakulla County, Wildlife Refuge	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$510,110



Construction of the Ochlockonee Bay Trail

POLICY RECOMMENDATIONS



Policy Recommendations

Provision of Bicycling Facilities

The County should adopt a complete streets policy that is sensitive to the streets' context. The policy should include provisions for bicycle and pedestrian facilities on streets, and should establish a hierarchy for the types of facilities provided. The hierarchy should include:

- Provision of a 12-foot or wider multiuse trail where right of way is available
- Provision of an eight to 10-foot multiuse trail where a 12-foot multiuse trail is not feasible
- Designated bicycle lanes or paved shoulders on all roadways, where feasible
- Shared lane markings (sharrow) on roads with speed limits below 35 miles per hour where bicycle lanes are not feasible
- Speed limits of 20 miles per hours or less on residential streets

Bicycle Lanes and Paved Shoulders

During resurfacing and reconstruction, 5-foot paved shoulders should be added to all roadways when right-of-way is available. Four-foot paved shoulders should be considered if 5-foot paved shoulders are not feasible. In urban areas, these paved shoulders should be marked as designated bicycle lanes.

Maintenance Policies

Wakulla County should consider adopting maintenance policies that address:

- Regular street sweeping that clears bicycle lanes and paved shoulders
- Post-storm street sweeping to remove debris
- Pothole and surface repair with a specific timeframe following a complaint (i.e. 24 hours, one week, or one month following a complaint)
- Sweeping of multiuse trails
- Vegetation maintenance on multiuse trails

Bicycle Parking Ordinance in LDCs

Wakulla County should update their existing Land Development Regulations to require developments to provide bicycle parking facilities.

The land development code ordinance should specify that bicycle racks or other acceptable

bicycle parking device shall:

- Be designed to allow each bicycle to be supported by its frame
- Be designed to allow the frame and wheels of each bicycle to be secured against theft
- Be anchored to resist removal and solidly constructed to resist damage by rust, corrosion, and vandalism
- Be located to prevent damage to bicycle by cars
- Be located in convenient, highly-visible, active, well-lighted areas
- Be located so as not to interfere with pedestrian movement
- Be located as near the principal entrance of the building as practical
- Provide safe access from the bicycle parking to the right of way or bicycle lane

Additional bicycle parking guidelines can be found in the Association of Pedestrian and Bicycle Professionals (APBP) publication Bicycle Parking Guidelines.

http://www.apbp.org/resource/resmgr/publications/bicycle_parking_guidelines.pdf

Bicycle Parking Retrofit Program

For existing development, it is recommended that a bicycle parking rack retrofit program be established in Wakulla County. Information can be provided on the County website about how bicycle parking can be added through a grant program that can be funded in the Crawfordville area through the proposed CRA budget with a match from local businesses.

Bicycle Advisory Committee

The County should consider establishing a bicycle advisory committee (BAC) to build public support for bicycling improvements. The establishment of this committee creates a systematic method for ongoing citizen input into the development of bicycle-related policies, plans, and projects. The committee membership should be comprised completely or predominantly of volunteer citizens with involvement from law enforcement representatives. The committee should be involved with developing relevant policy and planning documents, setting priorities, reviewing annual pedestrian program work plans, and reviewing major public and private projects. The committee can meet monthly, bi-monthly, quarterly, or annually. It is suggested that the members of the BAC come from the members of the advisory committee for this plan.



POLICY RECOMMENDATIONS

Bicycle Program Manager

The County should consider designating a Bicycle Program Manager. This role can be part of the regular duties of an existing position in the County. The Bicycle Program Manager would be responsible for implementing the recommendations in this plan, coordinating with other entities to provide training courses (such as Traffic Skills 101, Cycling Skills, Commuting, and other League of American Bicyclist courses), and promoting bicycling events (such as National Bike Month and Bike to Work Day). Additionally, it is recommended that the Bicycle Program Manager coordinates with the Tallahassee Community College (TCC) Wakulla Environmental Institute for bicycle, pedestrian, and blueway projects.

Bicycle Education

The County should look for opportunities to promote bicycle education through a variety of means, including:

- Bicycle education in schools through Safe Routes to Schools
- Public service announcements
- Community newsletters
- Utility bill inserts
- New resident packets
- Newspaper articles
- Blogs and social media
- Bicycling page on the County's website
- Drivers education courses

County Employee Training

County engineers and planners should be trained in American Association of State Highway and Transportation Officials (AASHTO) and Manual on Uniform Traffic Control Devices (MUTCD) standards.

Bicycle Suitability Map

The County should make available bicycle suitability maps in both printed and electronic format. The maps could be available on the County's website for download. This map serves

two main purposes:

- The map identifies the suitability of roadways for bicycling based on speed limits and traffic volumes.
- The back of the map provides bicycle resources and safety information

Bicycle Friendly Community Designation

As the projects identified in this plan are implemented, the Wakulla County should consider applying for designation as a Bicycle Friendly Community (BFC).



PEDESTRIAN ELEMENT



Introduction

Four areas have been identified as primary areas of concern for pedestrian access and connectivity in Wakulla County. The four areas are:

- Crawfordville
- The City of St. Marks
- Panacea
- The City of Sopchoppy

Increasing pedestrian access and connectivity in these areas will allow for neighborhoods to gain access to recreational facilities as well as the businesses that surround them. Pedestrian facilities provide direct access to commercial areas as well as provide safe routes throughout residential neighborhoods. From meeting with various stakeholders as well as representatives from both cities and municipalities where pedestrian facilities are being recommended, numerous projects have been identified that will allow for increased pedestrian options as well as greater access to goods and services throughout the County.

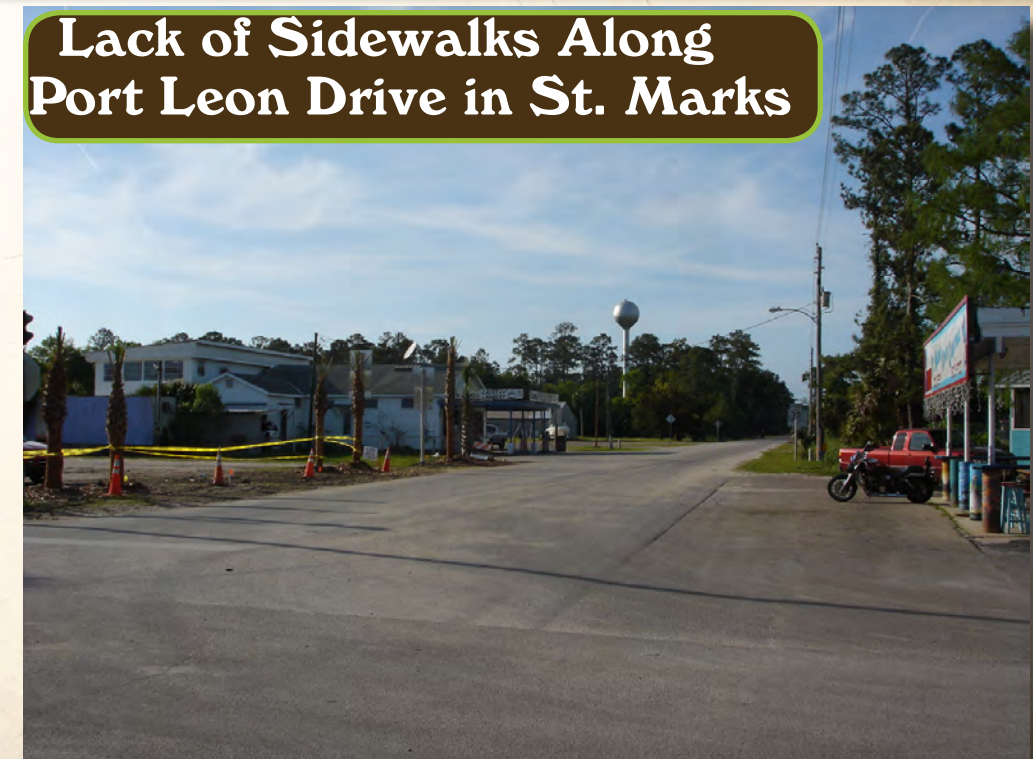
Lack of Sidewalk Along US 319 in Crawfordville



Lack of Sidewalks Along Park Avenue in Sopchoppy



Lack of Sidewalks Along Port Leon Drive in St. Marks





PEDESTRIAN ELEMENT

Crawfordville Recommendations

Pedestrian recommendations for the Crawfordville area are consistent with the recommendation in the Crawfordville Town Plan, which was adopted by the Wakulla County Board of County Commissioners on May 23, 2011. These recommendations can be seen in Figure 16. Crawfordville has the largest population in the County and therefore sees a large amount of both commercial and pedestrian activity. Recommendations for the Crawfordville area include sidewalks along the main arterial, US 319, as well as connections to various community buildings such as the Community Center and Senior Citizen Center. Pedestrian facilities will include:

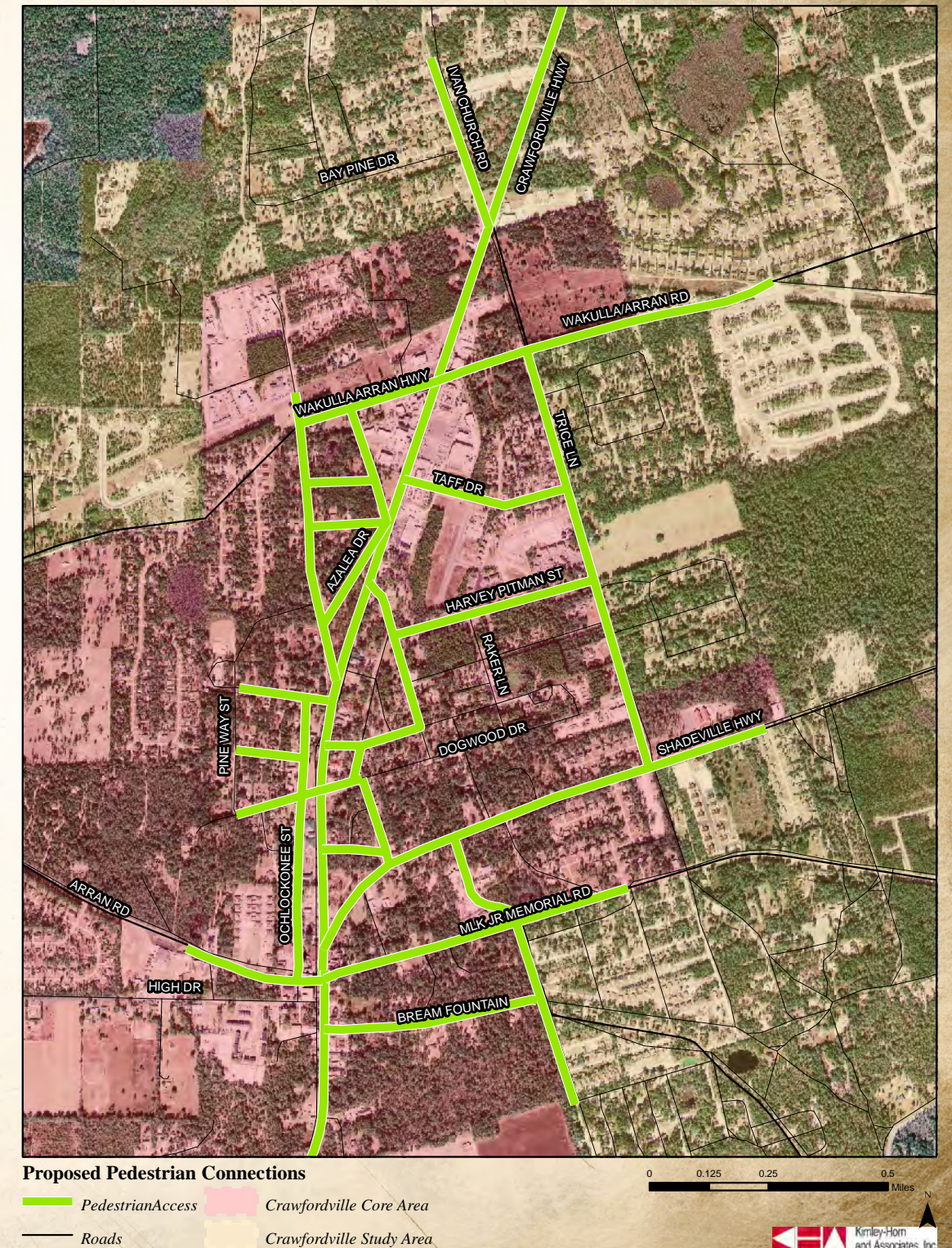
- Sidewalks
- Enhanced crosswalks
- Mid-block crossings
- Enhanced curb ramps at intersections and driveways

Along the US 319 corridor, high intensity crosswalks should be installed at significant intersections within Crawfordville. Locations for such facilities include the connection across US 319 between Hudson Park and Hickory Park, the connection across US 319 at Wakulla-Arran Road, the intersection of US 319 and MLK Jr. Memorial Drive/Arran Road, or any future connections that become significant when redevelopment occurs within Wakulla County. Additionally, high intensity crosswalks should be implemented at locations along US 319 where there is heavy commercial activity. The enhancements could include pedestrian actuated signals, the use of materials with visual and textual differences, or motion detecting crossing caution lights that are activated when bicyclists or pedestrians are present at the intersection. The motion detection crossing caution lights only flash when bicyclists or pedestrians are present, therefore motorists pay more attention when the lights are flashing. All curb ramps should be brought up to current design standards and built in accordance with the design guidelines provided in the supplemental Design Guidelines document. The following sidewalk recommendations were developed in the Crawfordville Town Plan and are the product of numerous stakeholder interviews and public meetings.

Pedestrian Actuated Signal in Largo Florida



Figure 16: Crawfordville Sidewalk Recommendations



PEDESTRIAN ELEMENT



Crawfordville Sidewalk Recommendations

● Wakulla Arran Road (East of US 319)

Wakulla Arran Road connects the commercial portion of US 319 located at the northern most portion of the core Crawfordville area within the project study area with businesses, such as McDonald's, Huddle House, Walgreens, and Capital City Bank, to residential neighborhoods, such as the Gardens of Saralan, Fox Run, and The Hammocks. Sidewalks along Wakulla Arran Road would improve pedestrian connectivity between these areas. For this connectivity, approximately 0.74 miles of sidewalks are needed. Additional survey and coordination will be required because right-of-way varies from no dedicated right-of-way to 60 feet of right-of-way along the segment



● Trice Lane

Connecting Trice Lane from Wakulla-Arran Road to Shadeville Highway would provide pedestrian access from the Community Center and multiple residential areas to the commercial developments at Wakulla-Arran Road and US 319. This connection is 0.91 miles in length and will require additional survey and coordination because right-of-way varies from no-dedicated right-of-way to 60 feet of right-of-way along the segment.

● Taff Drive

The addition of sidewalks along Taff Drive from US 319 to Trice Lane would provide connections from the commercial areas, which currently include Winn-Dixie, Ace Hardware, and several eating establishments to both platted but undeveloped residential subdivisions such as Commodore Commons and developed residential neighborhoods such as Camelot Townhomes. Taff Drive is approximately 0.36 miles. The right-of-way for Taff Drive is 60 feet.

● Mimosa and Hickory Street

Sidewalks on 0.33 miles of Mimosa Street from US 319 to Hickory Avenue and on Hickory Avenue from Mimosa Street to US 319 would provide connections between commercial areas on US 319, residential areas, and Hickory Park. Mimosa Street and Hickory Street both have 50 feet rights-of-way.



● Harvey-Pittman Street

Sidewalks on the 0.44 mile section of Harvey Pittman Road would provide pedestrian connections between the proposed sidewalks on Trice Lane and Mimosa Street, increasing the connectivity between residential developments and the US 319 corridor. Additional coordination will be required for this sidewalk project due to right-of-way constraints. The existing right-of-way is 50 feet from Mimosa Street to Raker Lane, but no right-of-way is dedicated along the remainder of the roadway.



P E D E S T R I A N E L E M E N T

● Cottonwood and Mary Avenue, and Dogwood and Dispennette Drive

A pedestrian network created through the addition of sidewalks on 0.08 miles of Cottonwood Avenue between Hickory Avenue and Dogwood Drive, 0.09 miles of Dogwood Drive between US 319 and Dispennette Drive, 0.19 miles of Dispennette Drive between Dogwood Drive and Shadeville Highway, and 0.13 miles of Mary Avenue between US 319 and Dispennette Drive would provide additional connections between the commercial development on US 319, the community center, residential areas, and other proposed pedestrian networks. Rights-of way are 50 feet on Cottonwood Avenue, 50 feet on Dogwood Drive, 50 feet on Dispennette Drive, and 50 feet on Mary Avenue.

● Wakulla Arran Road (West of US 319)

Sidewalks on Wakulla Arran Road should extend from Oak Street to US 319. This connection would be 0.3 miles and would provide access from the Senior Center and adjacent residential neighborhood and other residential areas to the commercial developments on US 319. Accessing the proposed sidewalks on Wakulla Arran Road via the proposed sidewalks on Oak Street would improve safety for Crawfordville Area seniors. This sidewalk project will require additional coordination due to right-of-way constraints. No right-of-way is dedicated between US 319 and Azalea Drive. The right-of-way within the Hudson Heights community is 50 feet.



● Oak Street

Sidewalks on Oak Street from US 319 on the south to the Senior Center and Health Department on the north and with connections via Myrtle Avenue, Cherry Avenue, and Wakulla Arran Road would improve pedestrian access from the Senior Center and adjacent Senior Housing and the residential neighborhoods along Oak Drive to both Azalea Park and to commercial areas such as Midtown Center and the businesses on US

319. Approximately 0.61 miles of sidewalks on Oak Street is needed. The right-of-way for Oak Street is 60 feet.

● Myrtle Avenue

Sidewalks on Myrtle Avenue would provide connectivity between Oak Street and Azalea Drive. This connectivity would provide better access for pedestrians from residential neighborhoods to Azalea Park and commercial areas along US 319. Sidewalks could be added when the 0.17 mile length of Myrtle Avenue is paved. The existing right-of-way on Myrtle Avenue is 66 feet.

● Cherry Avenue

Like Myrtle Avenue, Cherry Avenue also connects Oak Street to parks and commercial opportunities. Cherry Avenue could also connect residential areas to Crabapple Park when it is developed. Sidewalks could be included when the 0.15 mile length of Cherry Avenue is paved. The existing right-of-way on Cherry Avenue is 66 feet.



● Azalea Drive

Like sidewalks on Oak Street, the addition of sidewalks to Azalea Drive from US 319 on the south to Wakulla Arran Road on the north with connecting sidewalks on Wakulla Arran Road from Oak Street to US 319 would serve to improve access from the Senior Center and adjacent Senior Housing and the residential neighborhoods along Oak Drive to both Azalea Park and to commercial areas such as Midtown Center and the businesses on US 319. Azalea Drive is 0.5 miles in length with a right-of-way of 66 feet.

● Ochlockonee Street

Ochlockonee Street sidewalks would improve connectivity with the parks and would support

PEDESTRIAN ELEMENT



the proposed parade route and proposed cottage commercial industry zoning as shown on Figure 5a. The sidewalks would extend along 0.6 miles of Ochlockonee Street. The right-of-way on Ochlockonee Street is 50 feet.

● MLK Jr. Memorial Drive

Sidewalks on MLK Jr. Memorial Road from US 319 to Home Stretch Lane, a roadway segment approximately 0.67 miles would provide greater connection between the residential development on MLK Jr. Road, including Bridlewood Apartments and Magnolia Gardens, and the commercial development both on Feli Way and on US 319. MLK Jr. Memorial Road has a dedicated right-of-way of 100 feet, which is more than adequate for the inclusion of both sidewalks and bicycle lanes.

● Shadeville Highway

Like the addition of sidewalks to MLK Jr. Memorial Road, sidewalks on Shadeville Highway would connect the residential developments, including the Bridlewood Apartments, to the commercial development on Feli Way and on US 319. Additionally, the sidewalks would provide important connections to the new Wakulla County Community Center located at the former River of Life Church property. With a dedicated right-of-way of 66 feet, there is adequate right-of-way for sidewalks and bicycle lanes.

● Feli Way

Commercial properties are currently located on Feli Way and at the intersection of Feli Way and MLK Jr. Memorial Road. These commercial areas would be better connected to residential areas, the community center, and commercial areas on US 319 with the network of sidewalks formed by including sidewalks for the 0.24 miles of Feli Way and the proposed sidewalks on both MLK



Jr. Memorial Road and Shadeville Highway. Additional coordination will be required for this project because Feli Way is a private road although commercial developments are located on both sides of the roadway.

● Bream Fountain Road

The recently paved Bream Fountain Road connects the Magnolia Gardens subdivision to US 319 at the Wakulla County Administration offices. The addition of sidewalks along 0.45 miles of the road would connect the Magnolia Gardens neighborhood to segment where US 319 intersect with MLK Jr. Memorial Road, Shadeville Highway, and Arran Road. The feasibility of adding sidewalks will require additional investigation and coordination because there is no dedicated right-of-way for Bream Fountain Road.

● Rehwinkel Road and Tafflinger Road

The addition of sidewalks along the 0.4 mile section of Tafflinger Road/Rehwinkel Road from Dan's Drive to MLK Jr. Memorial Road would connect the largest residential subdivision in the Crawfordville Town Plan study area, Magnolia Garden's (including Greiner's Addition), to proposed sidewalk network connections at Bream Fountain Road, MLK Jr. Memorial Road, and Feli Way.

● Cedar Avenue, Sabal Palm Drive, and Dogwood Drive

Connections from residential areas to Hudson Park, the proposed Cottage Commercial area, and US 319 can be made via Cedar Avenue, Sabal Palm Drive, and Dogwood Drive. The sidewalks





P E D E S T R I A N E L E M E N T

would extend 0.19 miles along Cedar Avenue. The sidewalks on Sabal Palm Drive and Dogwood Drive could be installed in conjunction with the paving of 0.14 miles of Sabal Palm Drive and 0.19 miles of Dogwood Drive west of US 319. Sabal Palm Drive and Cedar Avenue both have a right-of-way of 75 feet and Dogwood Drive has a right-of-way of 50 feet.

● Ivan Church Road

To connect the Bridlegate subdivision to the commercial areas along US 319, sidewalks should be added from just north of Bridle Gate Drive south to Crawfordville Highway. This segment of sidewalks would be approximately 0.37 miles. As future development occurs between Ivan Church Road and Crawfordville Highway, the sidewalks could be extended north to Crawfordville Highway near the Wal-Mart shopping center. Within the Bridlegate subdivision, the right-of-way is 60 feet. No right-of-way is dedicated at either the northern or southern ends of Ivan Church Road at US 319.

PEDESTRIAN ELEMENT



St. Marks Recommendations

The City of St. Marks is a small incorporated city in Wakulla County that is home to just over 300 residents. The location of St. Marks at the confluence of the Wakulla and St. Marks Rivers and the terminus of the Tallahassee-St. Marks Historic Railroad State Trail gives St. Marks a unique opportunity to capitalize on both blueway and bicycle amenities. Because such a highly used trail is already located in the City, even minor improvements would make the area friendlier for bicyclists and pedestrians. It is recommended for this plan that features of the *Plan St. Marks* project be implemented. In *Plan St. Marks*, the city was divided into nine districts (Figure 17), each of which had their own set of interconnected recommendations (Figure 18). The districts with proposed pedestrian facilities are: the Riverwalk District, Residential District, and the Live-Work District.

Riverwalk District- Here it is recommended that sidewalks be added to both sides of the street on both Port Leon Drive and Riverside Drive. It is further recommended that intersection improvements be made to Port Leon Drive and Shell Island Road. The addition of these amenities would make the area much safer to traverse on foot, and would allow people who bicycle into the city on the St. Marks Trail options for walking around and seeing more of the city.

Residential District- In this district, it is recommended that sidewalks be added to all existing paved roads in the district, this would be complemented by having a sidewalk connection along Shell Road leading to the Riverwalk District. This connection would link the main residential area to the main commercial area and would offer residents another means of getting to shops and restaurants other than driving.

Live-Work District- In this district sidewalks are proposed along Port Leon Drive on both sides of the streets. This connection would link with the residential district giving the city a pedestrian connection that links the three main districts in the city. By adding these connections, the City will be able to capitalize on the location of the St. Marks Trail and offer visitors the ability to safely access all parts of the city.

Figure 17: St. Marks Districts

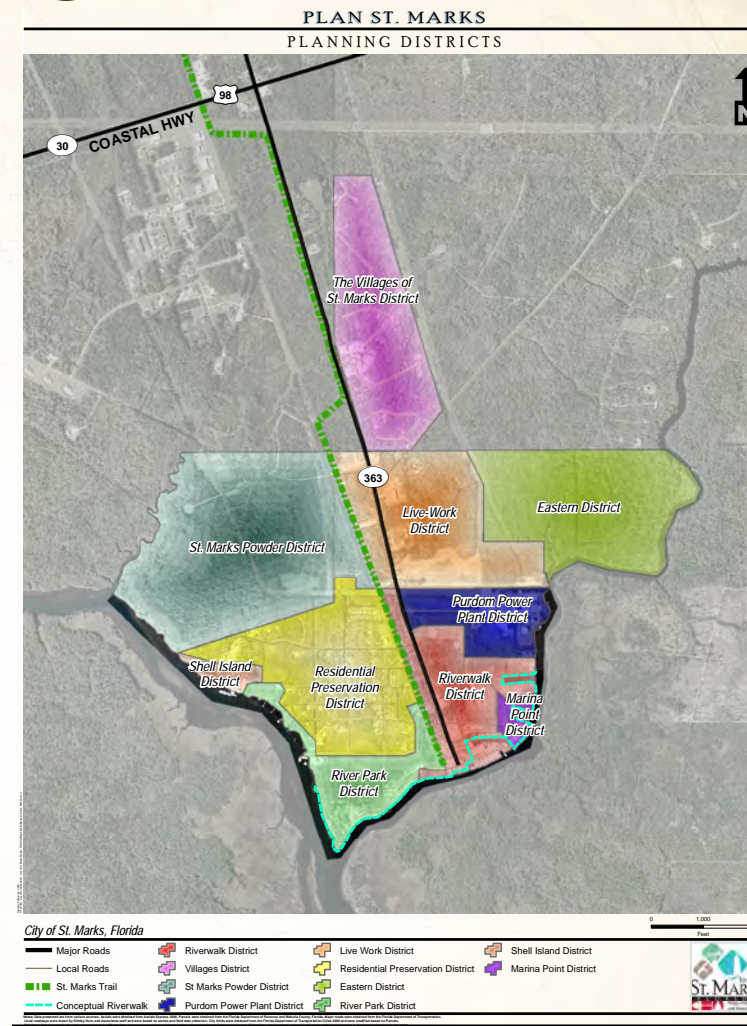
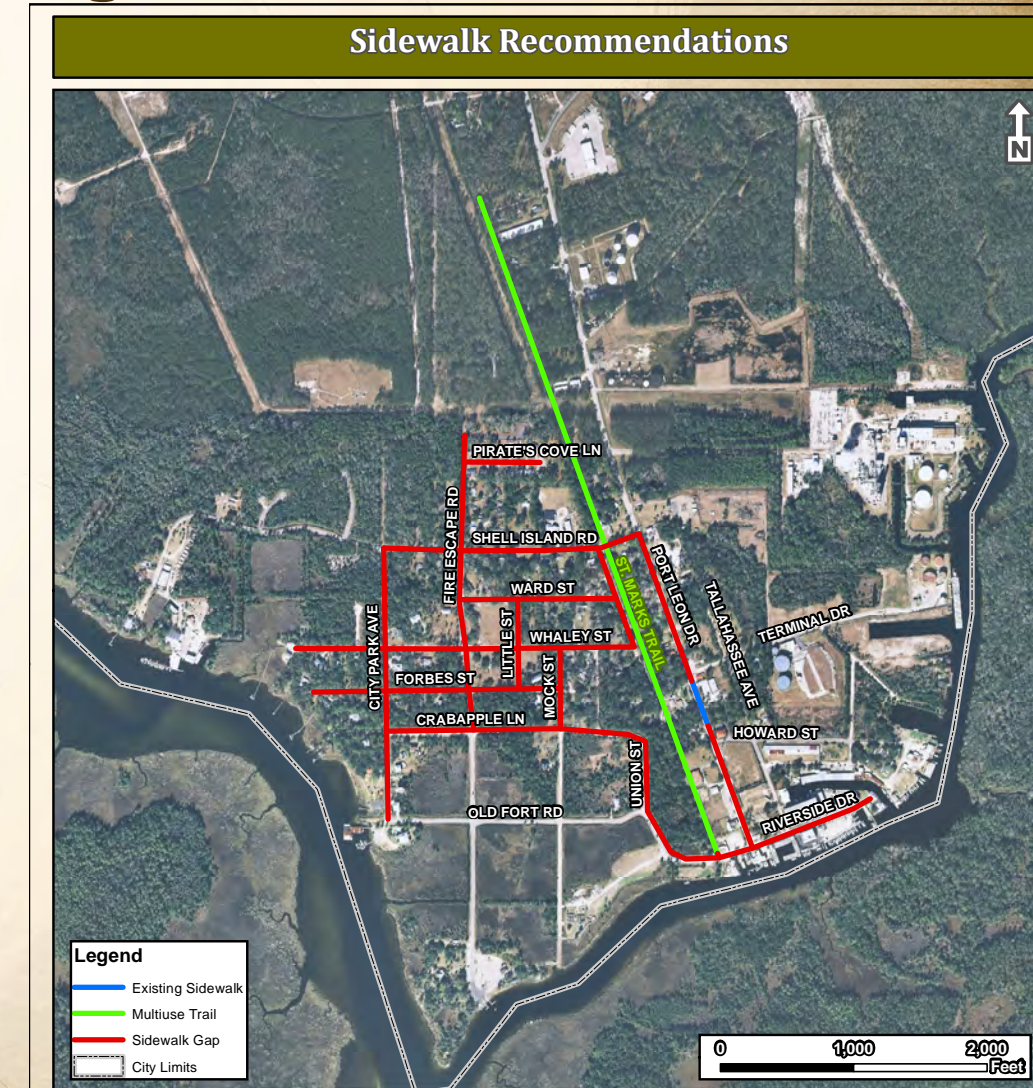


Figure 18: Sidewalk Recommendations





PEDESTRIAN ELEMENT

Panacea Recommendations

The following locations in Panacea have been identified as potential pedestrian connections (Figure 19). The recommendations combine a mix of sidewalks, crosswalks, and signage that would provide residents and visitors with added mobility options. Recommendations were adapted from the Panacea Walkable Waterfronts Florida Community Group Pedestrian project.

Panacea Visitor Center

Adding an enhanced crosswalk would allow pedestrians to safely cross between the visitor center and the proposed multiuse path along US 98. This would allow visitors to gather information from the Panacea Visitor Center and have pedestrian access to the Panacea commercial district.

Panacea Post Office

Adding enhanced crosswalk features to the existing crosswalk will allow for more visible pedestrian access by residents. This location also sees significant pedestrian traffic due to the fact it is located in the commercial district.

Panacea Shopping Area

Additional crosswalk features should also be added to key locations within the commercial district. Ideal locations would be at Mound Street, Piney Street, Division Street, Palmdale Street, Rock Landing Street, and Levy Bay Road. These crosswalks, in addition to the existing ones would allow pedestrians easy access to the areas of interest within the shopping district of Panacea.

Rock Landing Boat Ramp and Marina

Here it is recommended that a 1,200 foot sidewalk be built from the marina to the US 98; this sidewalk would connect to the multiuse trail running along US 98 via a crosswalk. Additional wayfinding signs could also be implemented to guide visitors to their destination

Otter Lake Recreational Area and Boat Ramp

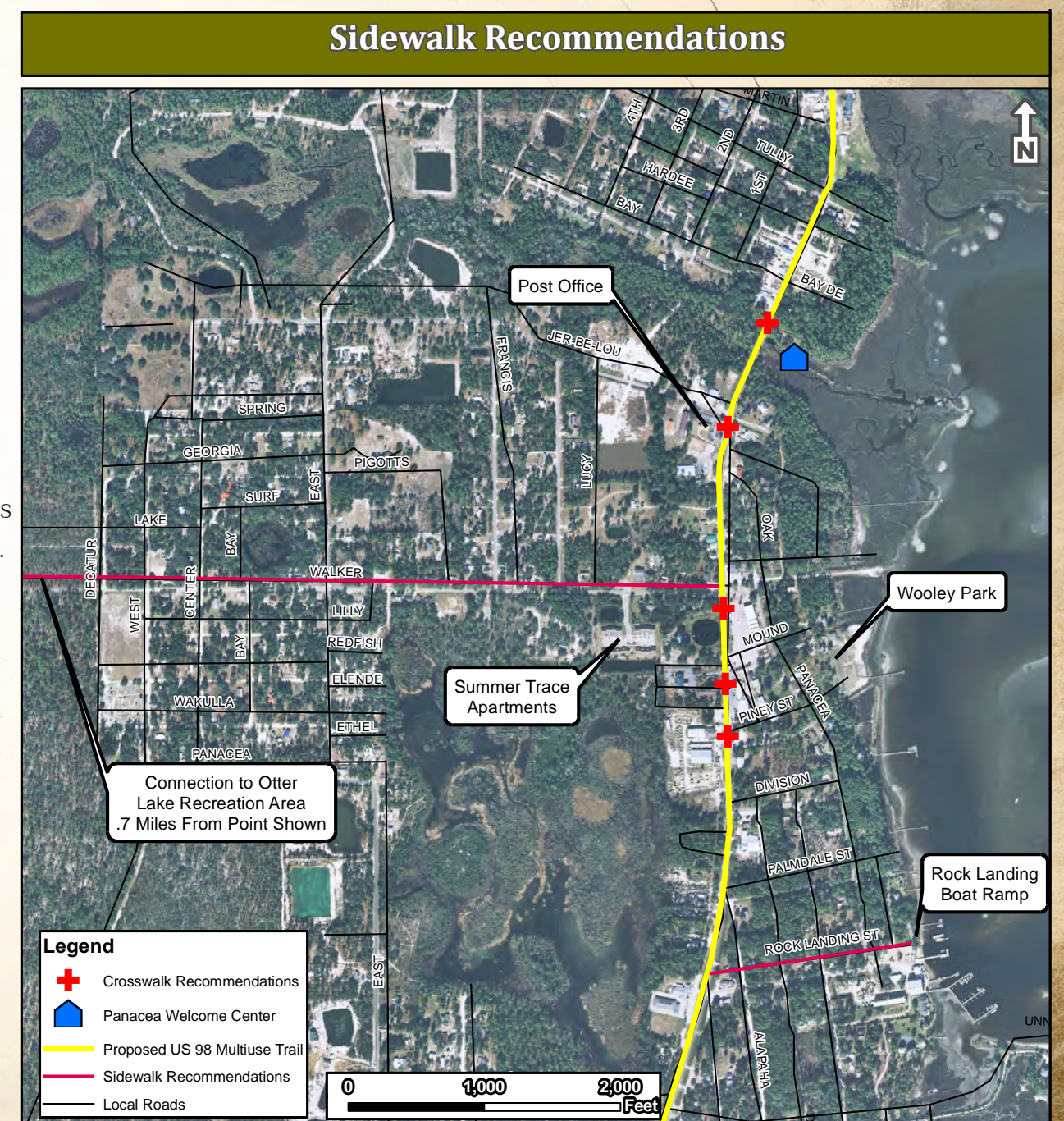
Otter Lake is an important recreational destination within Panacea. Connecting this amenity to the shopping district with a sidewalk would provide added recreation and mobility opportunities to the community. It would also connect to the high intensity crosswalk located near the post office.

Summer Trace Apartments

The Summer Trace Apartment Complex is a residential development for the elderly located on Otter Lake

Road. Due to limited mobility options for the elderly in Panacea, it is suggested that a connection be made to access Dollar General as well as the Big Top Super Market. To do this, a 0.1 mile sidewalk to connect the apartment complex to US 98 is needed. An enhanced pedestrian crossing is also needed at Walker Street.

Figure 19: Sidewalk Recommendations



PEDESTRIAN ELEMENT



Sopchoppy Recommendations

Sopchoppy is another small, incorporated city located in Wakulla County. Due to its size, relatively small changes can have a large impact on the walkability of the city. Currently, Sopchoppy has two roads with sidewalks. They are located on Municipal Avenue from Argyle Street to Boyd Street and on Rose Street from Faith Avenue to Wintrap Avenue. Sidewalk connections are on both sides of the roads, except on Municipal Avenue south of Rose Street where they are only on the west side. While these sidewalk connections do connect the biggest streets leading from the residential areas to the commercial district, they are lacking in many ways. All of the sidewalks are in very poor conditions, showing signs of neglect and disrepair, cracks are very common, and many of the sidewalks do not connect over driveways, forcing users to move from sidewalk to grass then back onto the sidewalk (Figure 20).

From conducting interviews with residents and stakeholders living and working in Sopchoppy, a few key projects and locations were identified where additional sidewalks could be added in order to make pedestrian activity a safer, more viable option in Sopchoppy. The two proposed projects are: adding a sidewalk to Yellow Jacket Road from Gulf Street to Wakulla Street, and adding a sidewalk that connects downtown Sopchoppy to Myron B. Hodge City Park.

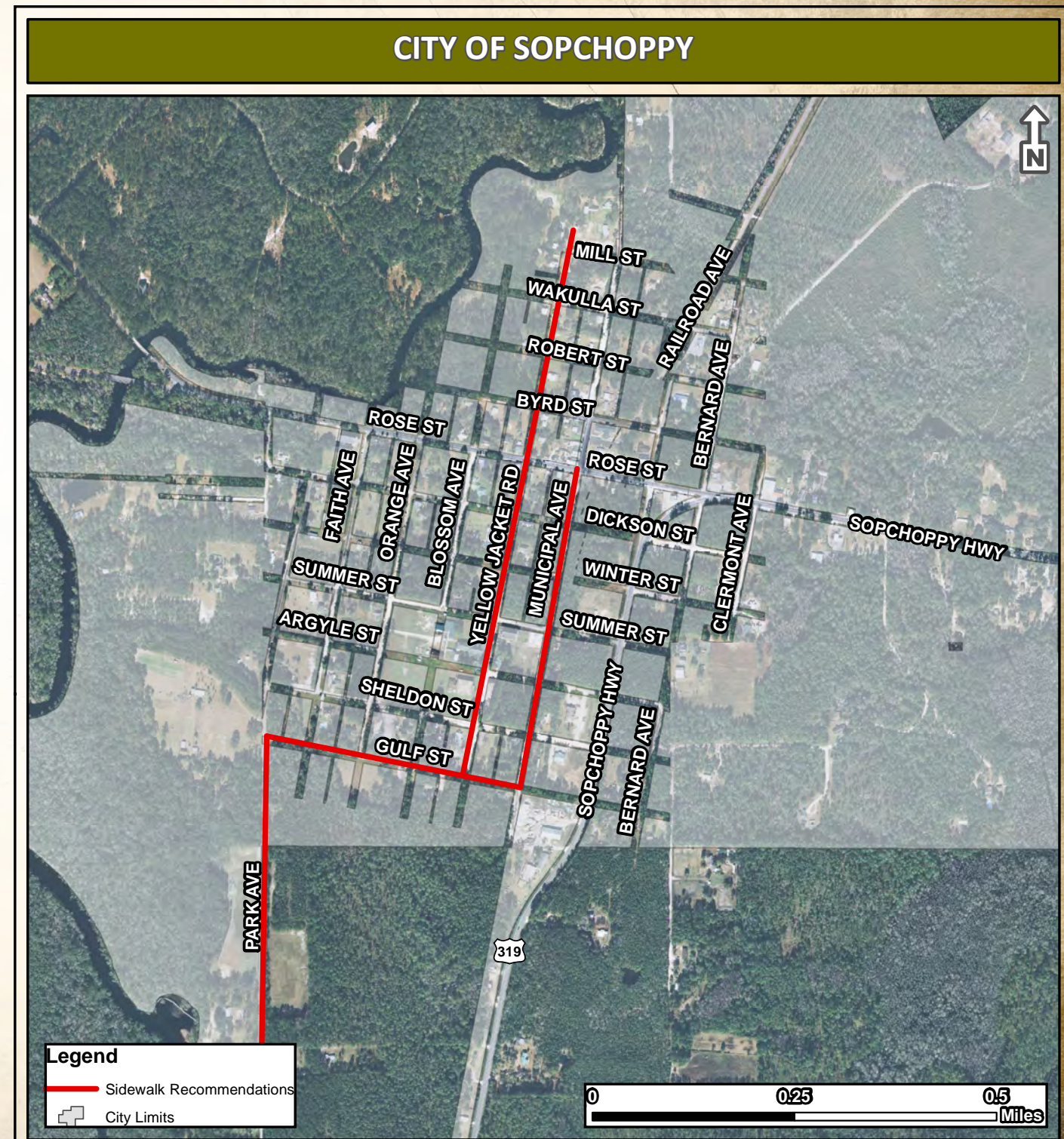
Yellow Jacket Road

It was stated in the stakeholder interviews that this road has a particularly high number of residential units located on it. In addition to this, it also has a large number of children living and walking along the corridor. Having a sidewalk on this road would give the children a safe way to walk between houses as well as access the downtown area. One potential concern for this sidewalk connection is that many of the residents on this street feel that all the land up to the road is theirs, so acquisition of this right-of-way regardless of who owns it could present a problematic issue. The total length of this sidewalk connection is 0.7 miles.

Downtown to Myron B. Hodge City Park

This connection could be made utilizing the existing sidewalks on Municipal Avenue. The additional sidewalk facilities that would need to be built could continue south on Municipal Avenue to Gulf Street, they would follow Gulf Street west to Park Avenue, on Park Avenue they would follow the road south until it reached the entrance to the park. Pedestrian crossings would be needed at the corner of Municipal Avenue and Gulf Street and at Gulf Street and Park Avenue. The total length of the sidewalk that would need to be built would be 0.9 miles.

Figure 20: Sopchoppy Recommendations





PEDESTRIAN ELEMENT



Non-connected sidewalk in Sopchoppy



Lack of Sidewalks on Port Leon Drive in St. Marks



Lack of Sidewalks Parks

SCHOOL CONNECTIVITY ELEMENT



SAFE ROUTES TO SCHOOLS PROGRAM

The Safe Routes to School (SRTS) Program was authorized in August 2005 by Section 1404 of the federal transportation act, SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users). This program provides Federal aid highway funds to State Departments of Transportation (DOTs) to make it safer and easier for children in grades K through 8, to walk or bicycle to and from school. Safe Routes to School (SRTS) initiatives can help communities address their school transportation needs and encourage more students to walk or cycle to school. The federal SRTS program is a reimbursement program administered by the Federal Highway Administration (FHWA). SRTS strives to enable and encourage children in grades K-8, including those with disabilities:

- To walk and cycle to school;
- To make walking and biking to school safer and more appealing; and
- Facilitate the planning, development, and implementation of projects that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools.

In addition to encouraging more children to walk or cycle to school, the program also seeks to address the safety needs of children already walking or biking in less than ideal conditions. The application window for FFY 2018 will open November 2012-March 2013. The following is a summary of the requirements needed to apply for SRTS funding, the existing conditions surrounding the schools, and the recommendations for each school within the study area.

SRTS funding can only be applied to schools serving grades K-8th grade. A safe routes to school analysis was still performed for the high school and is included in the countywide recommendations though it is not eligible for SRTS funding. Three public schools were evaluated for the purpose of applying for SRTS funding these are: Crawfordville Elementary School, Wakulla Middle School, and C.O.A.S.T. Charter School. The State recommends that proposed SRTS projects be within a 2-mile radius from the school the project would support. Projects closer to the school are given higher priority during the ranking process.

The Five E's of Safe Routes to School

Federal Highway Administration (FHWA) recommends that SRTS efforts incorporate - directly or indirectly - five components, often referred to as the "5 E's". They are:¹

1. **Engineering** - Creating operational and physical improvements to the infrastructure surrounding schools that reduce speeds and potential conflicts with motor vehicle traffic, and establish safer and fully accessible crossings, walkways, trails and bikeways.
2. **Education** - Teaching children about the broad range of transportation choices, instructing them in important lifelong bicycling and walking safety skills, and launching driver safety campaigns in the vicinity of schools.
3. **Encouragement** - Using events and activities to promote walking and bicycling.
4. **Enforcement** - Partnering with local law enforcement to ensure traffic laws are obeyed in the vicinity of schools (this includes enforcement of speeds, yielding to pedestrians in crossings, and proper walking and bicycling behaviors), and initiating community enforcement such as crossing guard programs.
5. **Evaluation** - Monitoring and documenting outcomes and trends through the collection of data, including the collection of data before and after the intervention(s).

¹: Information provided by: http://www.dot.state.fl.us/Safety/SRTS_files/SRTS.shtm



SCHOOL CONNECTIVITY ELEMENT

Eligible Project Categories

Infrastructure Projects

Proposed Infrastructure or Engineering projects may be located on or off the state highway system. These types of projects typically take longer to plan and implement, and cost more than most Non-Infrastructure programs, but usually have a great potential to help more children walk and bike safely to and from school. Examples of eligible infrastructure projects under Florida's Guidelines include:

Pedestrian facilities: Includes new sidewalks and other pathways, sidewalk widening and sidewalk gap closures, on the public right-of-way. All of these facilities must include ADA ramps and meet other ADA requirements. Short pedestrian bridges may be able to be funded with SRTS funding. However, longer pedestrian bridges over roadways will most likely be cost prohibitive, given the limited SRTS funding. Other types of funding should be pursued for these larger projects.

Bicycle facilities: Includes new or upgraded bike lanes, shared-use paths, geometric improvements and shoulder widening, on the public right of way, and bicycle parking facilities such as racks, and lockers on school grounds.

(Note: Bicycle parking facilities, racks, and lockers may be purchased with SRTS funds for placement on public school property, but not on private property.)

Traffic control devices: Includes new or upgraded marked crosswalks, pavement markings, traffic signs and signals, flashing beacons, bicycle-sensitive signal actuation devices, pedestrian countdown signals, pedestrian activated signal upgrades, and all other pedestrian- and bicycle related traffic control devices.

(Note: For any traffic control devices that require minimum 'warrants' to be satisfied prior to their installation, warrant sheets must be attached to the application. Coordinate with the appropriate traffic engineering office on this. The cost for a required traffic signal warrant study will not be funded by SRTS funds.)

Traffic calming: Includes roundabouts, bulb-outs, speed humps, raised crosswalks, raised intersections, median refuges, narrowed traffic lanes, lane reductions, full- or half-street closures, and other speed reduction techniques. Generally these are not stand-alone projects, but some traffic calming devices may be included as part of an overall pedestrian or bicycle facility

project. (Note: to be eligible for SRTS funding, the primary benefit of the proposed traffic calming must be to benefit children walking to or from school).²

Projects that are ineligible for SRTS funding include projects such as:

- Supplanting or replacing any existing or approved funding.
- Purchase of right of way
- Sidewalks or other pathways on school property, which are the responsibility of the school board or private school
- Improvements to routes to bus stops
- Improvements to pick-up and drop-off areas, unless the primary purpose is to benefit children walking and bicycling to school
- Stand-alone curb ramps, which should be done with other funds to meet ADA requirements
- Stand-alone items that should be addressed by regular maintenance, such as pavement repairs, repainting of roadway markings or replacement of signs

Non-Infrastructure Projects

Non-Infrastructure SRTS funds are limited and considered start-up funds. As a result, local non infrastructure program funding should not exceed three consecutive years for the benefit of one school or group of schools. However, local Applicants can apply to expand or adapt successful programs to different schools, or propose different programs after that time.

Application's for non-infrastructure programs can be applied for at any time, as long as the District has uncommitted funds.

²: http://www.dot.state.fl.us/Safety/SRTS_files/SRTS%20Guidelines,%2011-30-10.pdf

SCHOOL CONNECTIVITY ELEMENT



Application Process

Applicants applying for infrastructure funding are required to form a school-based SRTS Committee and are required to meet a minimum of three times before their application can be submitted. The School-based SRTS Committee can be based on an existing committee such as a Community Traffic Safety Team, a Parent Teacher Association or Parent Teacher Organization (PTA/PTO) committee or a School Safety Committee, but other members must be added so the final committee includes school and community representatives from all 5E's. The Committee should include representatives from the school or schools, elected officials, Metropolitan Planning Organizations (MPO), appropriate county and city agencies, local neighborhood associations and non-profit organizations. It is important to involve the public and neighborhood associations in planning efforts so everyone will be on board if a project is selected for funding.

Prior to and during the application phase it is recommended that the applicant use the planning steps outlined in the “Steps for Creating a Safe Routes to School Program” available on the National Center for Safe Routes to School website and provided in the Appendix. Other resources and suggested guidelines available can be found in the Florida Safe Ways to School Tool Kit.

This tool kit is available for download from the University of Florida’s College of Health and Human Performance (HHP) website and a link is available on the FDOT website.


Data collection is required in both a) the application phase, and b) the implementation phase of SRTS projects and programs. The standard data collection forms are located under the Data Central tab on the National Center for Safe Routes to School website. A copy of the data collection forms overview is provided in Appendix D.

a) A student in-class travel tally is required to be conducted before an application is submitted. The results must be submitted to the National Center for SRTS data base and also summarized in the Infrastructure Application or Non-Infrastructure Information Form. The Parent survey is not required before an application is submitted, but it is a helpful tool to gather information and identify problems, so it is encouraged.


b) Both the student in-class travel tally and the Parent Survey must be administered again shortly before a SRTS project begins, and a few months after it is completed. The only exception is for a Non-Infrastructure program which is implemented in the same school year as the proposal, and there have been no major changes in travel patterns or major events which would influence either survey. Sample student in-class travel tally and parent survey are included in Appendix D.

Sample applications for both infrastructure and non-infrastructure related projects are shown and included in Appendix D. Submitted applications are reviewed by an application review team made up of FDOT employees, specific to each district. Members of the team are knowledgeable of the needs and design standards associated with bicycle and pedestrian projects in and around their districts. The review team will evaluate each application and rank the applications using criteria established by the state Safe Routes to School Coordinator. The proposed projects are then sent to the state SRTS Coordinator for a final review and then the projects are placed in the Work Program for implementation to begin.

The FDOT Safe Routes to School Program requirements and information is subject to change. It is recommended that coordination be made with the five FDOT District SRTS coordinators prior to starting the application process. Further information and contact information can be found on FDOT’s Safe Routes to School Program website or by contacting the statewide SRTS coordinator, Pat Pieratte, directly at: Pat.Pieratte@dot.state.fl.us.



**Florida's
Safe Routes to School
Non-Infrastructure
Information Form**



Section 1 - School & Applicant Information		
School Information		
County or Counties:		
City or Cities:		
Type of school(s) (check all that apply): <input type="checkbox"/> Public <input type="checkbox"/> Private		
<input type="checkbox"/> Elementary	<input type="checkbox"/> Middle	<input type="checkbox"/> Other school serving K-8* <input type="checkbox"/> Other types of schools*
* Explain Other schools below		
Number of schools involved		
<input type="checkbox"/> 1-3 schools involved. Name(s) of school(s)		
#1:		
#2:		
#3:		
<input type="checkbox"/> Multiple schools. Explain below how many schools will be involved, and their involvement.		
Type of school(s): <input type="checkbox"/> Elementary <input type="checkbox"/> Middle <input type="checkbox"/> Multiple schools <input type="checkbox"/> Other		
<input type="checkbox"/> Public <input type="checkbox"/> Private		
Name of Proposed Activity or Program:		
Applicant Information		
<input type="checkbox"/> Community Traffic Safety Team <input type="checkbox"/> School Board <input type="checkbox"/> Private School		
<input type="checkbox"/> Governmental Agency, including MPO <input type="checkbox"/> Non-Profit Organization <input type="checkbox"/> Other		
Agency/Organization Name:		
Contact Person:		Title:
Daytime Phone:		E-mail:
Mailing Address:		
City:	State: Florida	Zip:
Signature:	Typed Name:	Date:
Signature of School Board or school representative required when different from applicant:		
Signature:	Typed Name:	Date:



CRAWFORDVILLE
ELEMENTARY SCHOOL

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SCHOOL CONNECTIVITY ELEMENT

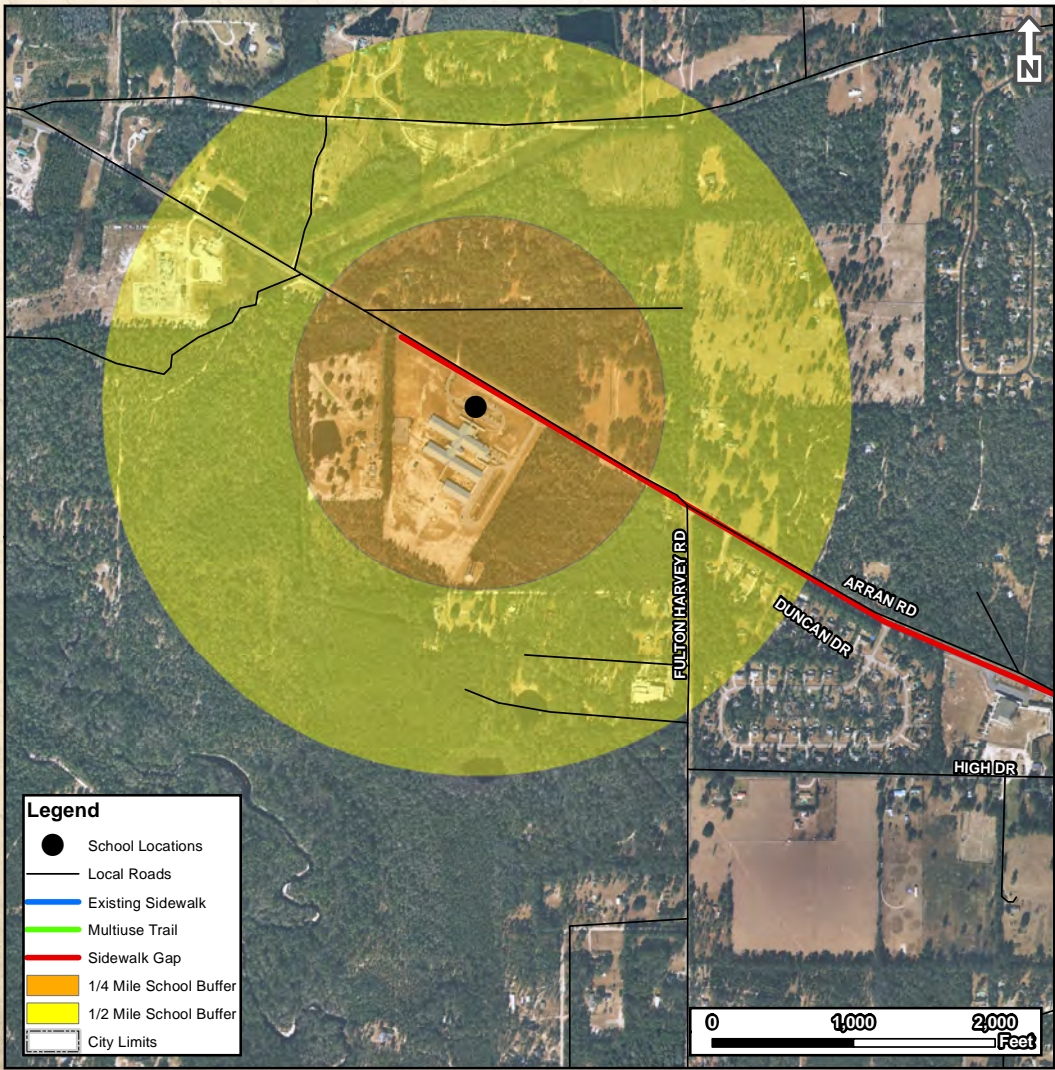


Crawfordville Elementary Recommendations

Location:
379 Arran Road
Crawfordville, FL 32327
Hours: 8:55 AM - 3:20 PM

Assessment:
Crawfordville Elementary is located on Arran Road to the west of Downtown Crawfordville. Currently, there are limited housing developments located within a reasonable walking distance of the school. Therefore, it is recommended that, in coordination with the bicycle element of this plan, a wide asphalt sidewalk be constructed that could serve the school. This location can be seen in Figure 21.

Figure 21: Crawfordville Elementary Sidewalks

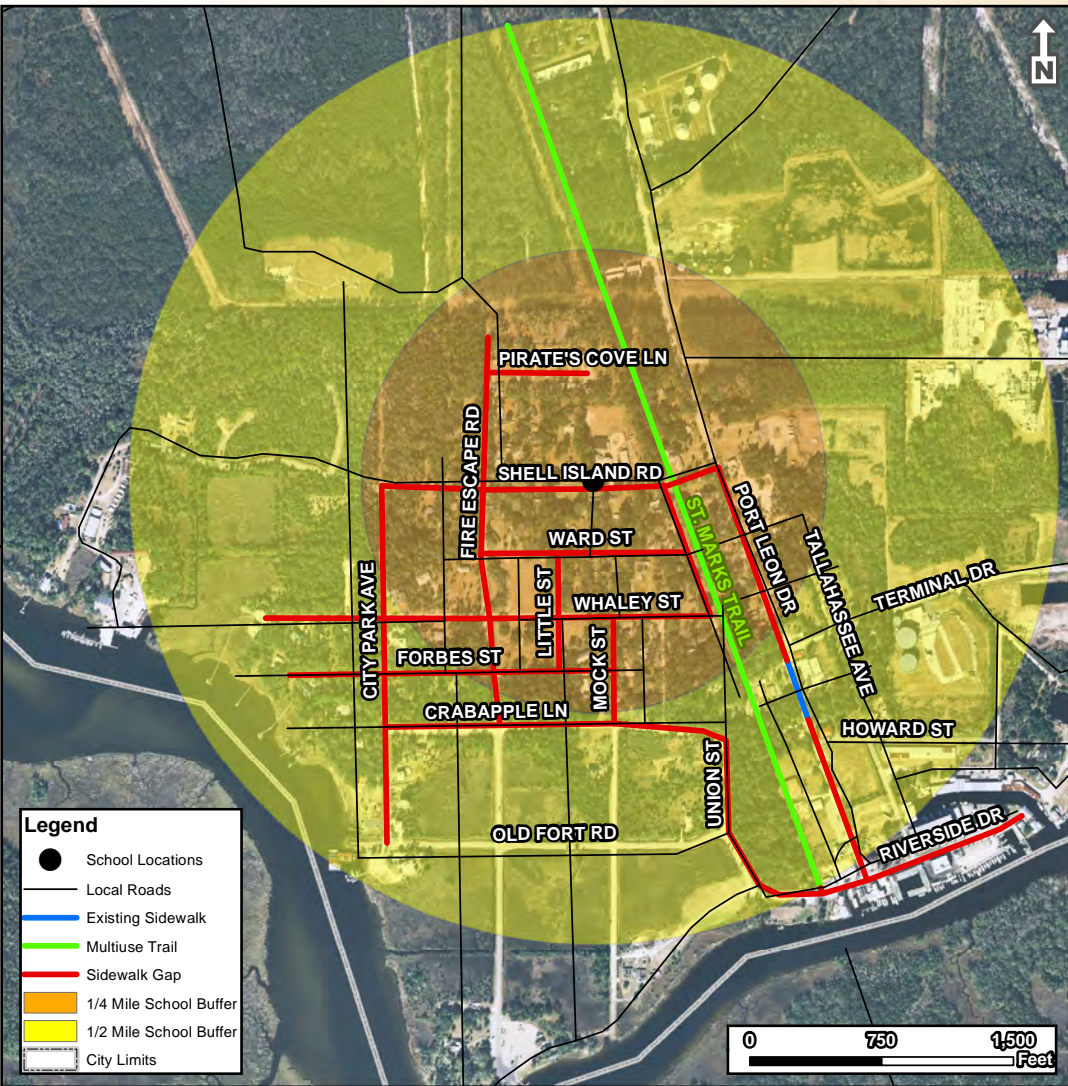


C.O.A.S.T. Charter School Recommendations

Location:
48 Shell Island Road
P.O. Box 338
St. Marks, FL 32355

Assessment:
There are numerous residential roads within a half mile of C.O.A.S.T. Charter School. Currently, there is only one small section of Port Leon Drive that has sidewalk, therefore, it is recommended that, in conjunction with the pedestrian element of this plan, sidewalks be constructed along Port Leon Drive as well as along the residential streets within the community. These streets can be seen in Figure 22. By making these connections it will allow student, to have safer access to the school and to other key destinations within the city.

Figure 22: C.O.A.S.T Sidewalks





SCHOOL CONNECTIVITY ELEMENT

Wakulla Middle School Recommendations

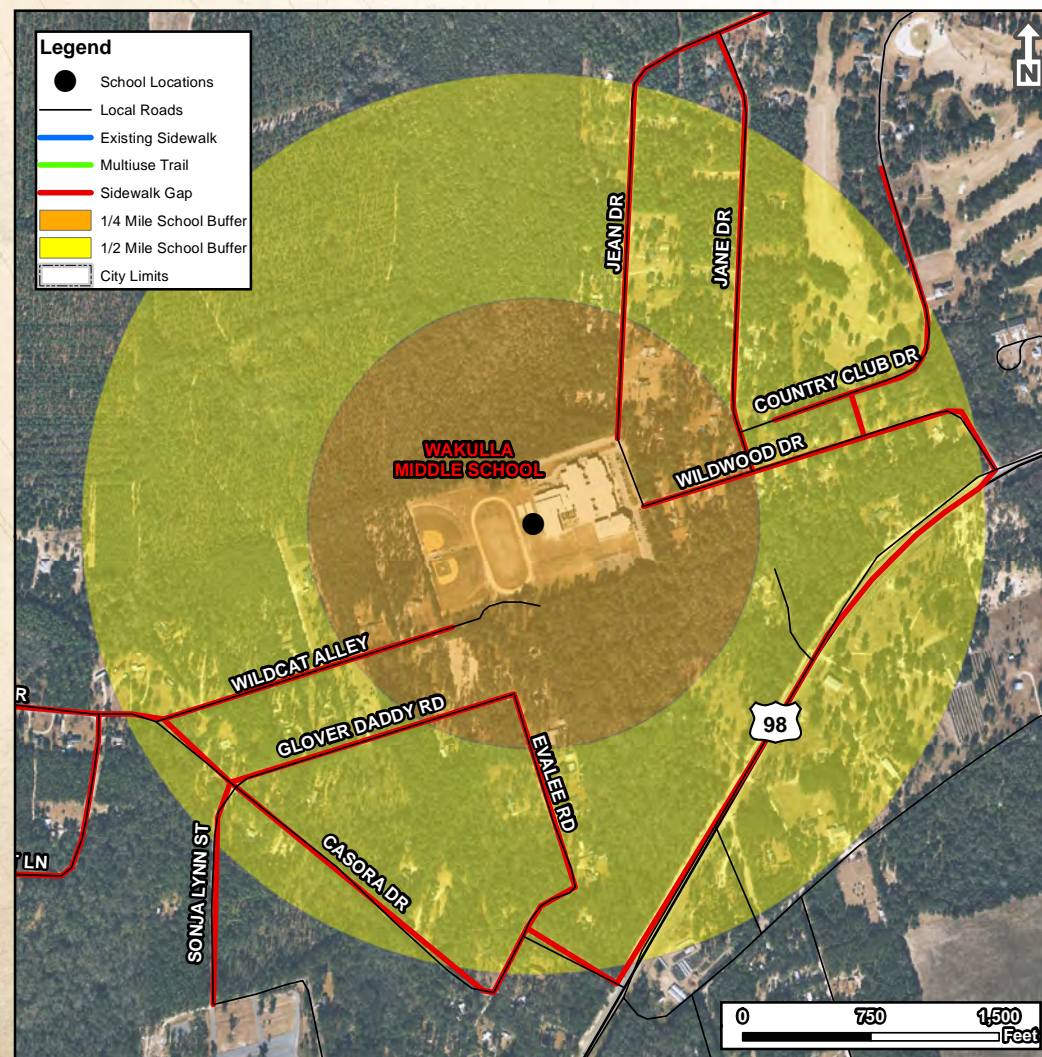
Location:

22 Jean Drive
Crawfordville, FL 32327
Hours: 7:35 AM - 2:20 PM

Assessment:

Wakulla Middle School is located in close proximity to residential development as well as the US 98 corridor. For this school it is recommended that sidewalks first be constructed along Jean Drive, Jane Drive, and Wildwood Drive. These sidewalks would connect the middle school to the residential development as well as the proposed multiuse trail along US 98. When additional funding becomes available it is recommended that sidewalks be constructed along all the roads within a half mile, as shown in Figure 23.

Figure 23: Wakulla Middle Sidewalks



Wakulla High School Recommendations

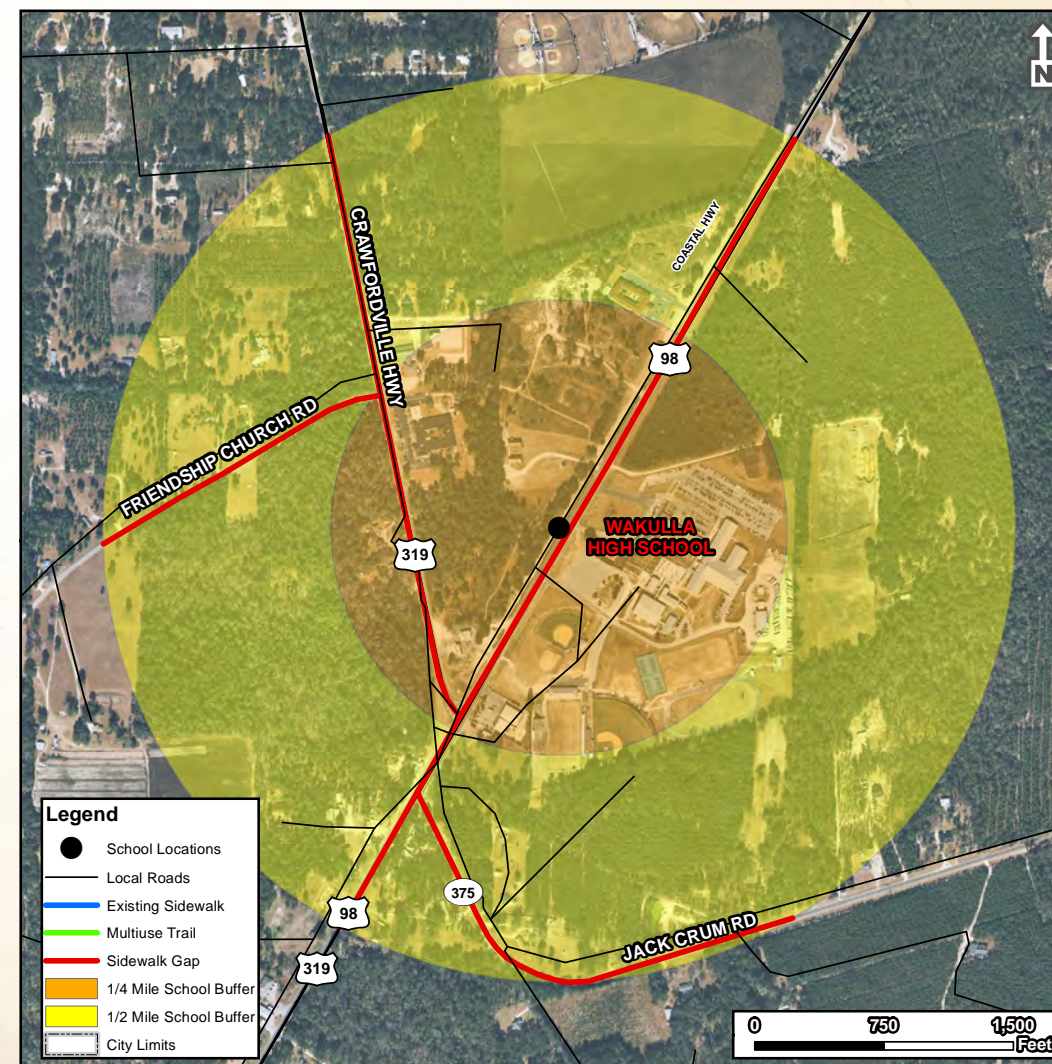
Location:

3237 Coastal Highway
Crawfordville, FL 32327
Hours: 7:40 AM - 2:00 PM

Assessment:

Though Wakulla High School does not qualify for Safe Routes to School funding, there were still some areas that were identified to construct sidewalks when funding becomes available. The US 98 corridor will be served by the multiuse trail that is proposed. Additionally, a sidewalk should be constructed along Jack Crum Road. The locations of all suggested projects are shown in Figure 24.

Figure 24: Wakulla High Sidewalks



BLUEWAYS ELEMENT



Blueways Plan

A blueway, or paddling trail, is a water path that is accessible to the public for the purposes of canoeing or kayaking. Blueways typically include launch points, camping locations, and points of interest to encourage family recreation, ecological education, and preservation of natural resources. There are four blueways in Wakulla designated as paddling trails on the Florida Greenways and Trails System. These designated paddling trails include:

- The Wakulla River Paddling Trail
- The Sopchoppy River Paddling Trail
- The Ochlockonee River - Lower Paddling Trail
- The Florida Circumnavigational Saltwater Paddling Trail (Crooked River / St. Marks Refuge Segment)

Blueways in Wakulla County not currently designated as paddling trails by the State are the Wakulla River south of US 98 and the St. Marks River. Figure 25 shows the designated and undesignated paddling trails in Wakulla County.

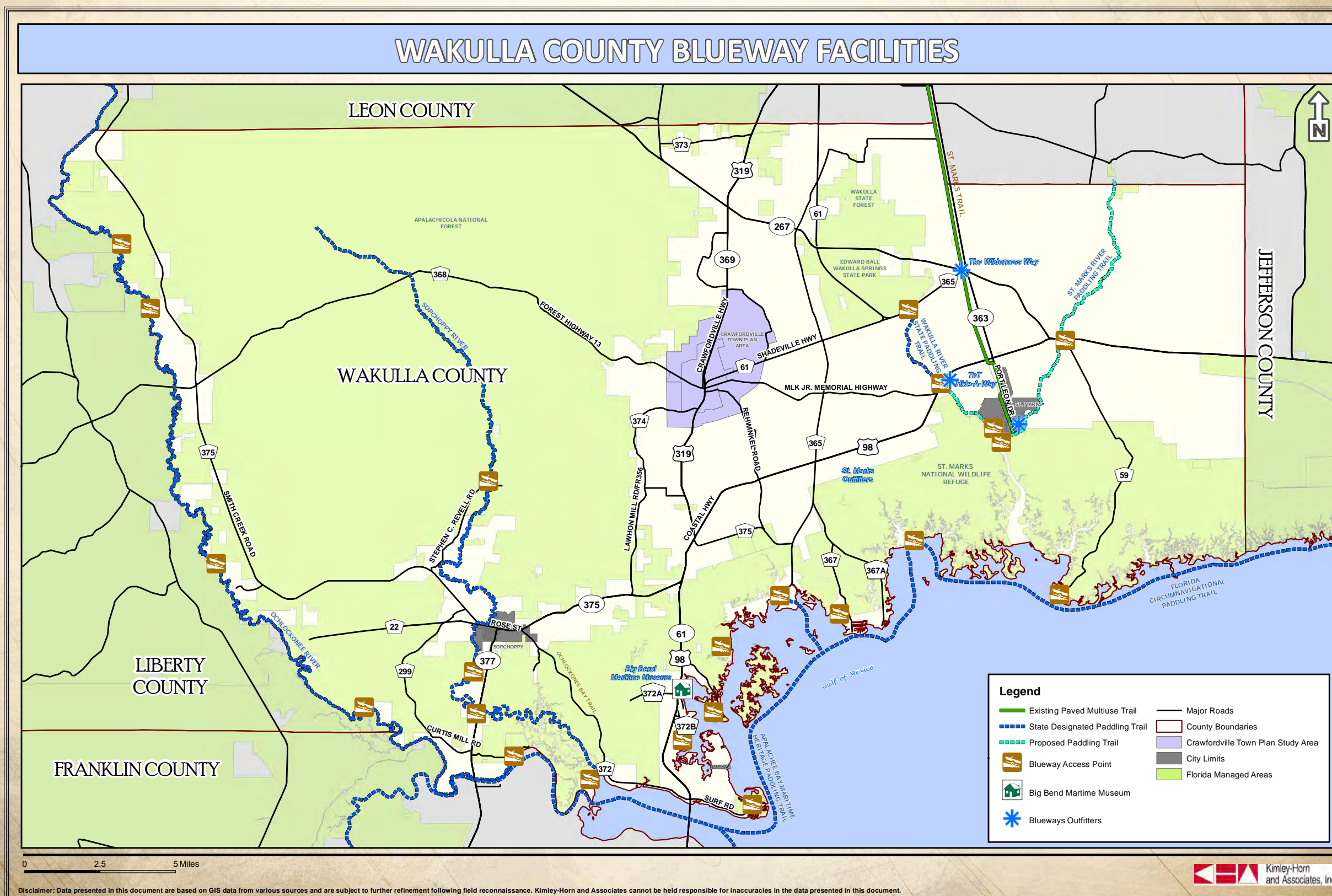
The recommendations included in this Blueways Plan are intended to improve connectivity between people and the various resources in the County, promote geotourism, support economic development and local businesses, and provide for enhanced recreational opportunities.



Paddlers on the St. Marks River



Figure 25: Wakulla County Blueway Facilities



BLUEWAYS ELEMENT



Wakulla River Recommendations

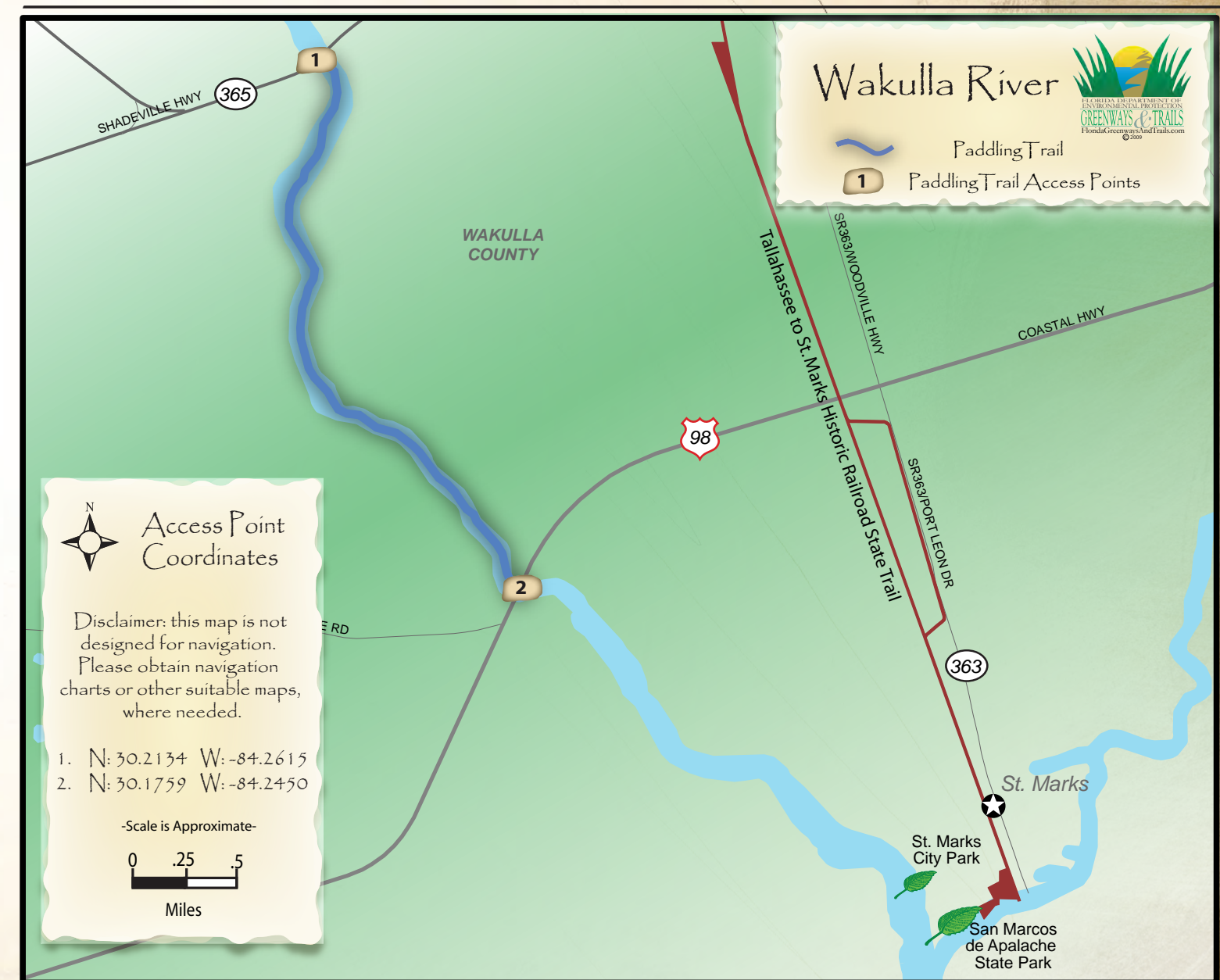
According to the Office of Greenways and Trails (OGT) the Wakulla River has two launch sites that are designated as part of the Florida Paddling Trail. These sites are located on the southwest corner of the bridge on CR 365 and the southeast corner of the bridge located on US 98. These launch site locations are shown in Figure 26.

The northern bridge launch site consists of a small unmarked parking area and a narrow, unpaved, bumpy boat launch site. Currently, motor boats are allowed to launch from this site (although it is very narrow and uneven), but it is recommended that all motor boats be launched at the existing paved ramp along US 98 so that an eco-friendly synthetic matting or turf can be used at this site. Additionally, portions of the Wakulla River between the northern launch site and the US 98 bridge may be shallow during certain seasons, making the river less manageable for some motor boats. The synthetic matting or turf recommended at this launch site would allow non-motorized blueway users to use a ramp without being intimidated by larger boats. It is also recommended that amenities such as restrooms or a changing area be added to make the site more user-friendly.

Paddlers on the Wakulla River



Figure 26: Designated Wakulla River Paddling Trail





BLUEWAYS ELEMENT



Northern Launch Site Parking



Ramp at Northern Launch Site



Road Access to Northern Launch Site



View From Northern Launch Site

BLUEWAYS ELEMENT



At the launch site on US 98, there is a pre-existing parking area located on the southwest corner of the bridge, as well a smaller parking lot on the southeast corner next to the launch site. There is currently a paved boat launch area as well as a natural launch area located directly adjacent to it. Due to the popularity of this launching site, it is recommended that the synthetic matting be added to the natural launch site. Using the synthetic matting would minimize the disturbance to the natural vegetation in the area as well as provide a stable and sustainable launch area for canoes and kayaks. Basic amenities should also be added to the launch site; currently there are no restroom facilities, no trash cans, spigot, or other boat cleaning mechanism, and no seating or picnicking areas. The addition of any number of these would provide users with a cleaner, safer, more enjoyable experience.

The Wakulla River has other optional blueway launch sites, not considered part of the Wakulla River Paddling Trail. These launch sites are located at the St. Marks River Park and the Wakulla River Park in the City of St. Marks. Both of these locations have bathrooms and drinking water fountains. Because these locations primarily serve motor boats, it is recommended that signage be used to alert people that it is possible to launch non-motorized boats from these locations, and that dry ramps be installed so that it is easier to load and unload canoes and kayaks. In addition to these design recommendations, it is also suggested that the portion of the Wakulla River between US 98 and the confluence of the Wakulla and St. Marks Rivers be designated as a Florida Paddling Trail; doing so would give added exposure to the area and boost support for upgrading the facilities for canoes and kayaks.

Manatee on the Wakulla River



US 98 Launch Site Parking



US 98 Launch Site Ramps





BLUEWAYS ELEMENT



View From the South US 98 Bridge Launch



Wakulla River Park

BLUEWAYS ELEMENT



St. Marks River Recommendations

The St. Marks River is currently not designated as a Florida Paddling Trail. Designating the St. Marks River as a Florida Paddling Trail would:

- Bring public recognition to the blueway
- Permit FDEP, as resources allow, to enter into management, patrol and protection agreements, and into leases if so stipulated in the designation agreement
- Encourage FDEP to identify sources of funding for management and restoration needs
- Give private landowners some liability protection
- Give the blueway additional consideration in certain public land acquisition and grant programs, such as the Florida Communities Trust Land Acquisition Program, the Recreational Trails Grant Program, and the Florida Recreation Development Assistance Program

For a blueway to be designated as a Florida Paddling Trail, a government or a not-for-profit entity must agree to manage the blueway and apply for designation. Applications for designation are available from the Florida Department of Environmental Protection's Office of Greenways and Trail.

Launch sites for the St. Marks River are located at Newport Campground and at the St. Marks River Park in the City of St. Marks. Wooden slat dry launches could be installed or unimproved natural launch areas could be designated for canoes and kayaks to help avoid conflicts between paddlers and motor boaters at the paved launch locations.



Launch Site at St. Marks River Park



The Confluence of the St. Marks and the Wakulla Rivers

BLUEWAYS ELEMENT



Sopchoppy River Recommendations

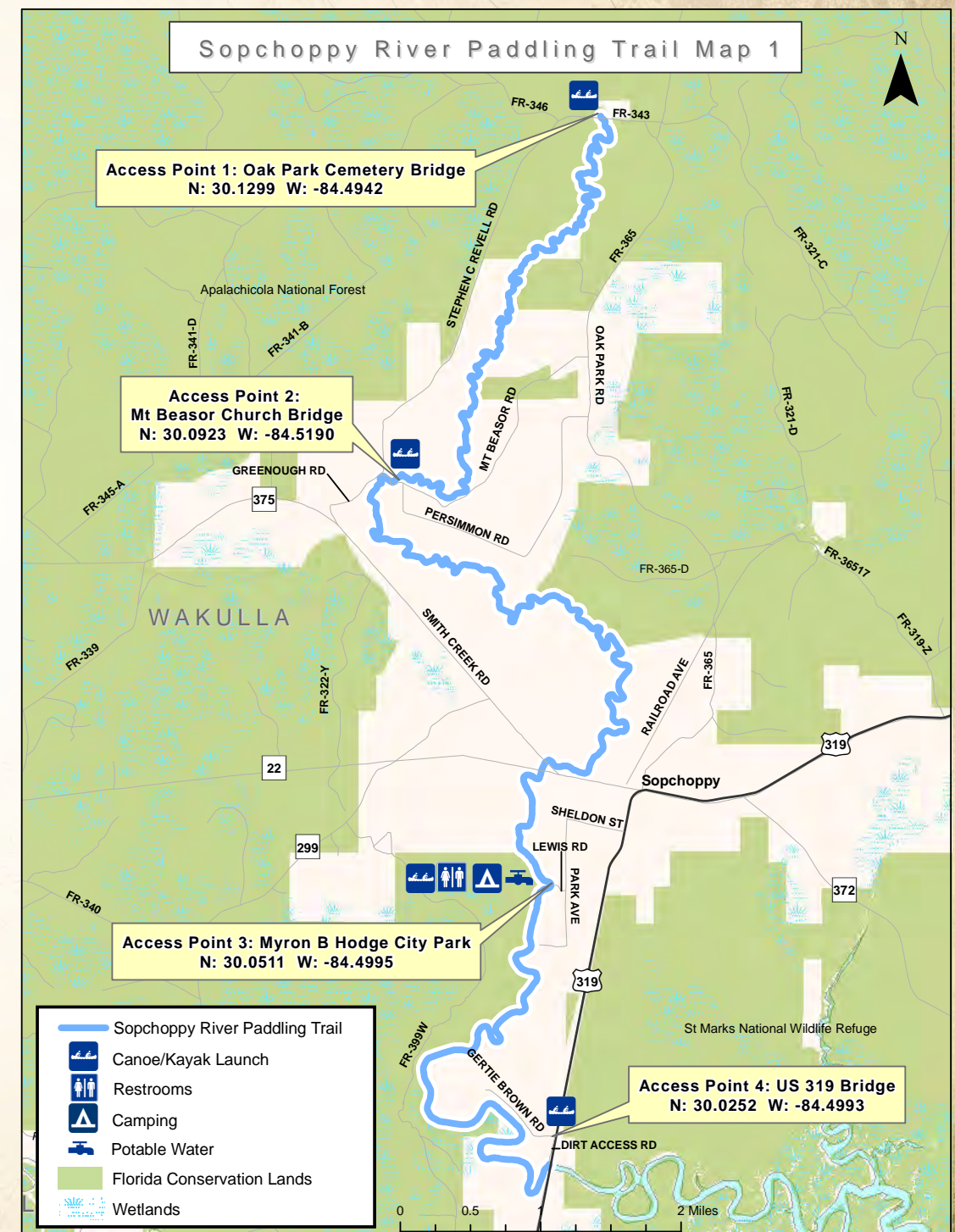
The Office of Greenways and Trails lists four blueway access points along the Sopchoppy River. The access points are located at the Oak Park Cemetery Bridge, Mount Beasor Church Bridge, Myron B. Hodge City Park, and US 319 Bridge. These locations can be seen in Figure 27.

The northernmost access point, Oak Park Cemetery Bridge, has a small parking area that contains no amenities. There is no formal launch area on the shore. This portion of the Sopchoppy River also has very low water levels much of the year and; therefore, may be unpleasant for many people. Because of these conditions, it is recommended that the site not be listed as an access point for the general public, but rather as an access point for advanced paddlers only.

The launch site at Mount Beasor Church Bridge has no formal parking area and no amenities. This location also has a steep slope to access the river with no formal launch zone. At this location of the river the water is also low for much of the year, so it is again recommended that this access site be listed as not for the general public, but instead be listed for advance users only.

The launch site at Myron B. Hodge Park is the only formal launch site on the Sopchoppy River. At this location there is a boat launch, parking, camping, electrical hookups, and drinking water. To launch a boat at this location there is a three dollar fee that goes to the City of Sopchoppy. Although this site has everything needed to launch a boat it could be upgraded to make the site more accessible for canoes and kayaks. We recommend that a wooden slat dry launch be added or a natural area be designated to make loading and unloading easier for paddlers.

Figure 27: Designated Sopchoppy River Paddling Trail



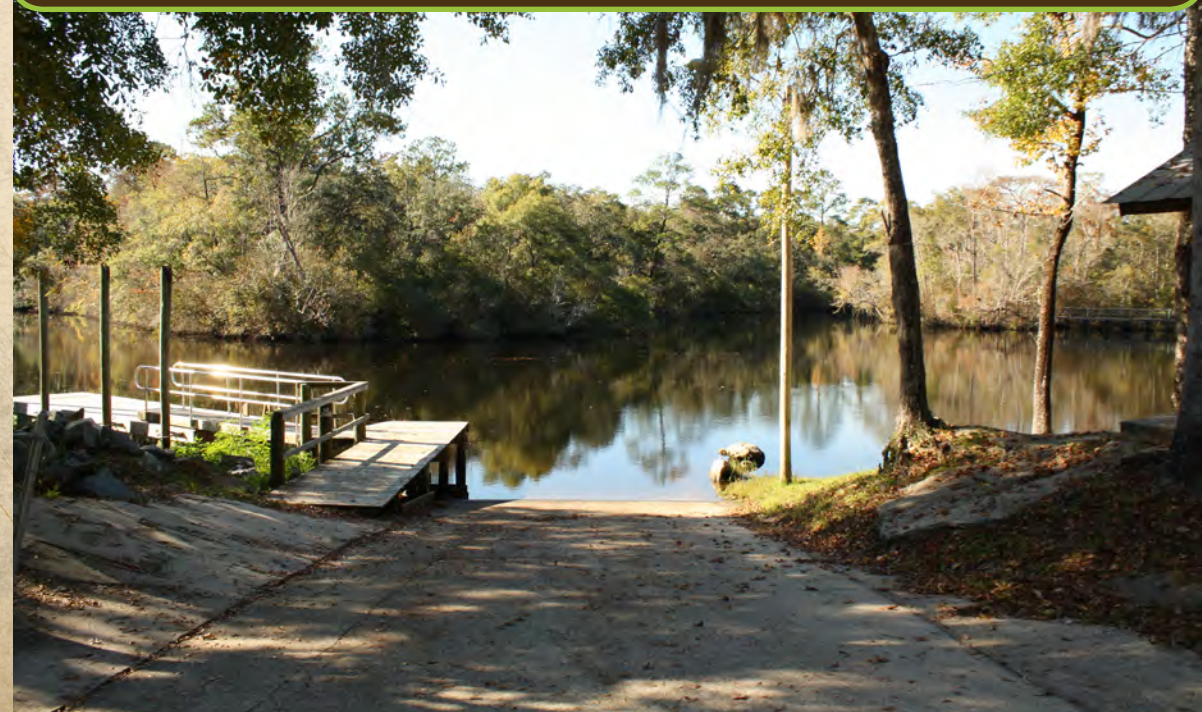


BLUEWAYS ELEMENT

Mount Beasor Church Bridge Access Point



Myron B. Hodges Park Access Point



Steep Slope to the Access Point



BLUEWAYS ELEMENT



The access point at the US 319 bridge has no formal parking area and no amenities. The site is located down an unimproved road that could limit the ability of some people to access the launch area. For this site, the access road leading to the launch site would need to be cleared and widened to allow for cars to pass each other safely. Due to the small size of the area, parking is an issue, though cars could potentially parallel park along the access road. At this launch site there is a short, steep slope to access the water. Because there are loose roots and other impediments on the launch site, it is recommended that the roots be cleared and the area leveled. The launch could optionally be covered with synthetic matting so that users have a safe way to access the water. In addition to this, basic amenities such as trash cans and a sitting area should be provided to make the site more attractive and user friendly. This location offers access to a beautiful, wide portion of the Sopchoppy River and would be an ideal location to enhance the amenities.

Access Road to Launch Site



Launch Area



Trash Cans Are Needed





The Sopchoppy River

BLUEWAYS ELEMENT

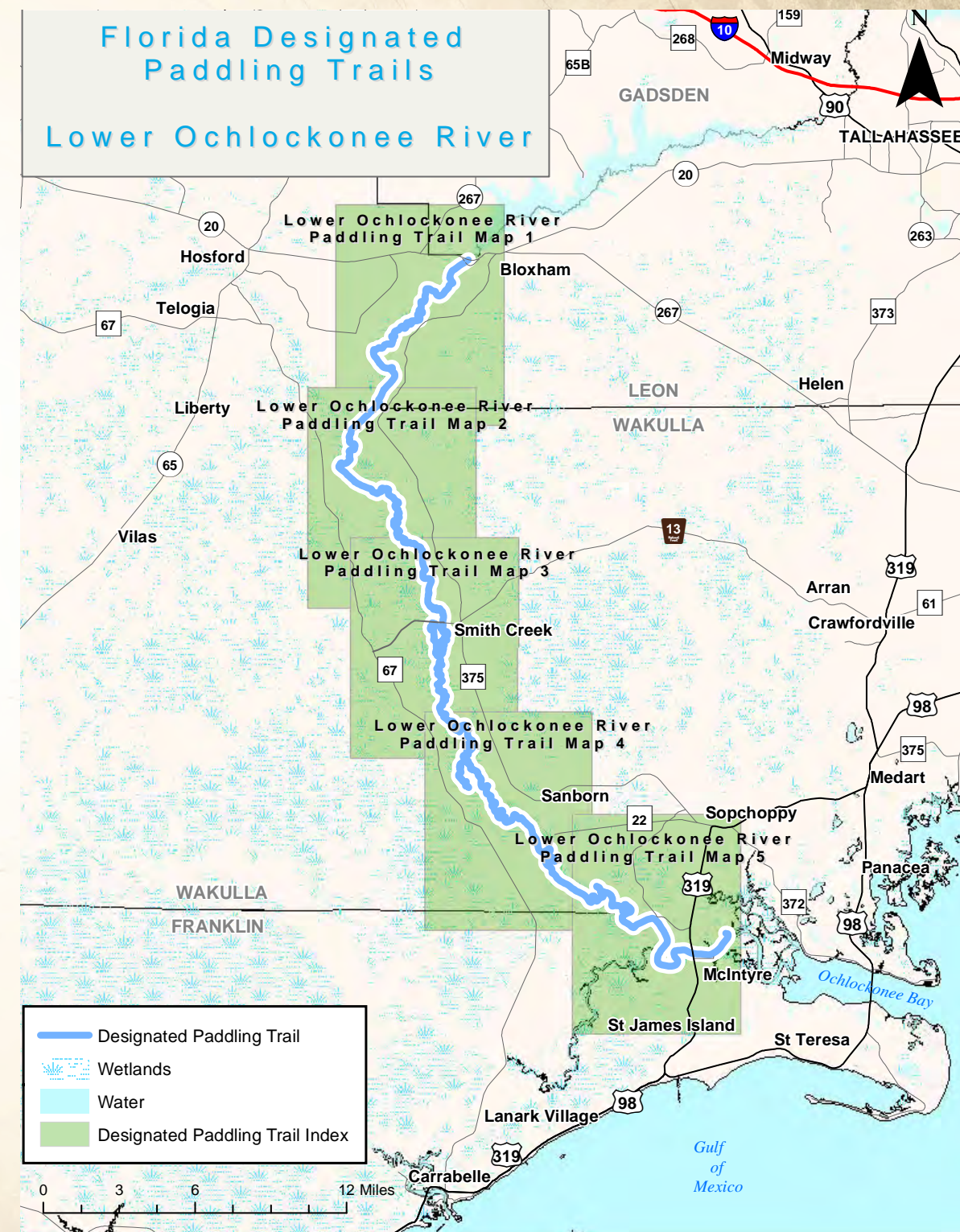


Lower Ochlockonee River Recommendations

The Office of Greenways and Trails (OGT) identifies numerous access points listed for the Lower Ochlockonee River (Figures 28a - 28f). Many of these sites are located in surrounding counties. The following five access points have been selected as the best suited for blueways enhancements in Wakulla County:

- Pine Creek Landing
- Langston's Fish Camp
- Mack Landing Campground
- Wood Lake Campground
- Ochlockonee River State Park

Figure 28a: Designated Lower Ochlockonee River Paddling Trail





BLUEWAYS ELEMENT



Figure 28b: Map 1

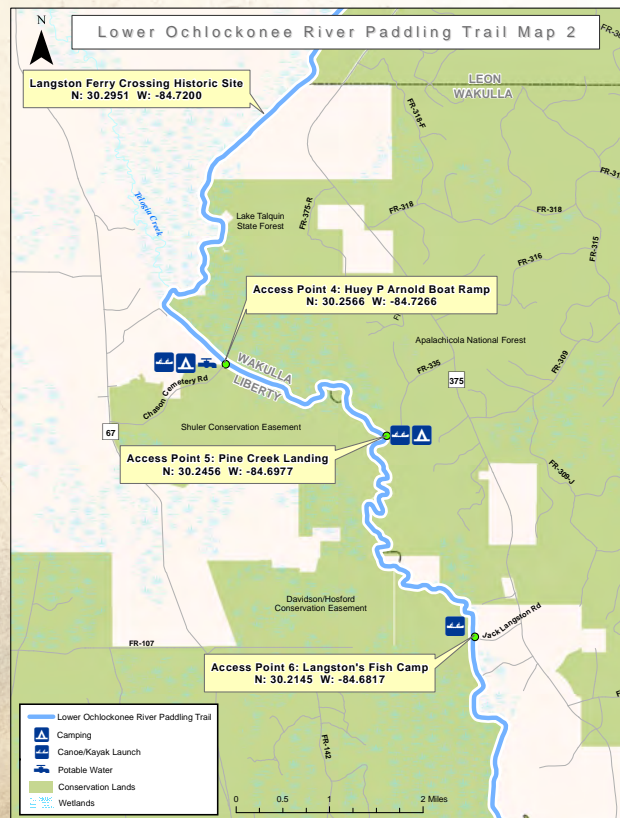


Figure 28c: Map 2

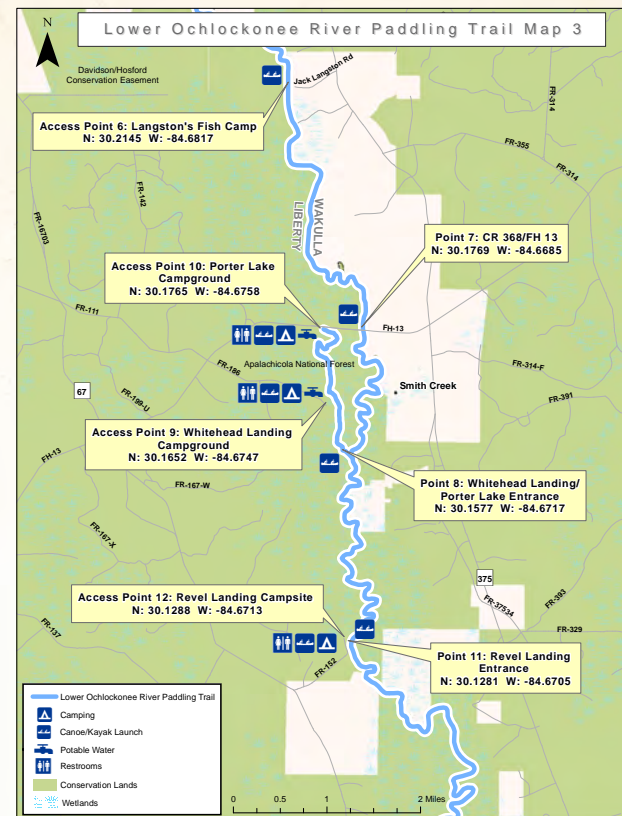


Figure 28d: Map 3



Figure 28e: Map 4

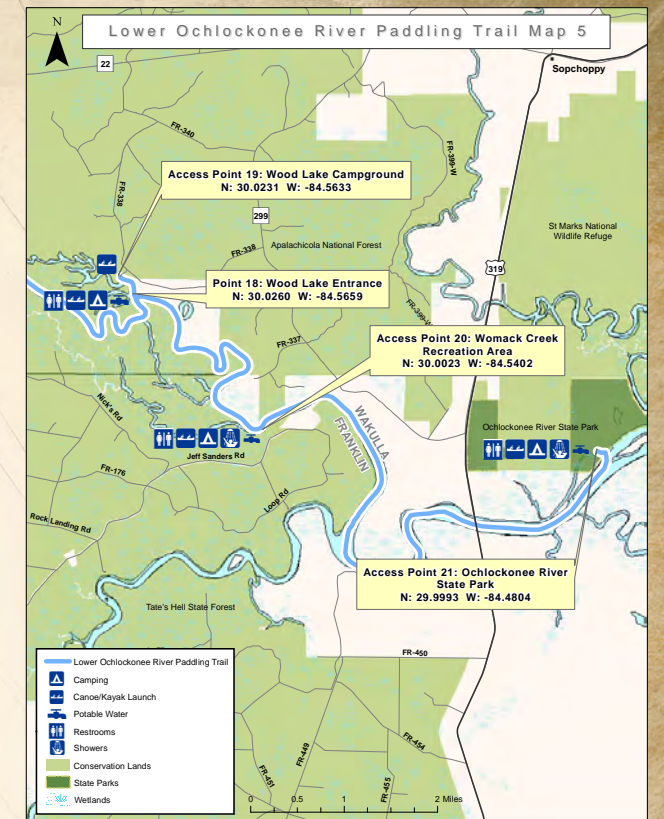


Figure 28f: Map 5

BLUEWAYS ELEMENT



Pine Creek Landing

The Pine Creek Landing access point includes a parking area, multiple camp sites, restrooms, trash cans, and a paved boat launch. The boat launch is currently in good condition and offers users of the facility easy access to the river. Because the boat ramp is currently designed to be used predominantly by motorized boats on trailers it is recommended that facilities be added to facilitate the launch of non-motorized boats such as canoes and kayaks. At this facility adding a wooden slat dry launch or designating a natural area for canoe and kayak launching would be possible and allow for easier access to the river.



Launch Site at Pine Creek



Amenities located at Pine Creek

Langston's Fish Camp

The access point at Langston's Fish Camp consists of a steep paved motorized boat ramp, which requires a fee of \$2.00 for use. There are no other amenities at this location. Due to the rough design of the existing boat ramp, it is unlikely that additions for non-motorized boat launches would be possible. Therefore, at this location it is recommended that basic amenities such as trash cans and picnic tables be added.



Launch at Langston's Fish Camp



Langston's Fish Camp Launch



BLUEWAYS ELEMENT

Mack Landing Campground

The Mack Landing Campground access point has camping, trash cans, restrooms, running water, and a paved launch facility. Currently, the launch facility is in adequate condition, although a portion of the ramp is closed. It is recommended that the side that is currently closed to vehicles be turned into a canoe and kayak launch by implementing a wooden slat dry launch facility or similar treatment.

Wood Lake Campground

The Wood Lake Campground access point has camping, trash cans, restrooms, running water, and a paved launch facility. Although the entire facility has a very rural feel, the launch ramp is in good condition. For this launch facility, it is recommended that a wooden slat dry launch be added to make the launch of canoes and kayaks easier.

Ochlockonee River State Park

The Ochlockonee River State Park launch facility has restrooms, camping sites, showers, running water, trash cans, and a paved launch facility. Because this launch facility is located within the State Park, it is recommended that the County coordinate with the Florida Division of Recreation and Parks to enhance canoe and kayak facilities.

Obstructions on boat launch at Mack Landing



Broken pieces of boat launch at Mack Landing



Boat launch in the State park



Launch area at Wood Lake



BLUEWAYS ELEMENT



Additional Recommendations

Information should be added to the Board of County Commissioners website, the Tourism Development Council Website, and the mobile application that provides information on how blueway activities can be affected by different weather conditions. Information should include, but is not limited to, tide times, current local weather, and local knowledge as to the best times of year to participate in certain activities.

There are numerous areas throughout Wakulla County that could also benefit from enhanced amenities and facilities. Implementation of these recommendations would provide for a more enjoyable experience by users as well as a more complete connection between the blueway facilities and the surrounding amenities.

Shore Line at Mashes Sands





BLUEWAYS ELEMENT

Mashes Sands (Panacea Area)

Beach rehabilitation
Boat ramp rehabilitation
Canoe/Kayak launch
Parking lot improvements
Ochlockonee Bay Bicycle Trail trailhead
Observation platforms
Entrance gate
Signage/Educational kiosks
Restroom facilities, beach and boat ramp areas
Dredging and navigation
Walking Paths
Extension of wooden walkway for observation
Beach sand matting for wheelchair accessibility to beach

Purify Bay (Medart Area)

Signage/Educational kiosks
Canoe/Kayak Launch

Bayside Marina (Panacea Area)

Marina rehabilitation

Brothers Three Boat Ramp (Panacea Area)

Boat ramp rehabilitation

Shell Point Beach

Beach restoration
Boat ramp
Dredging and rehabilitation



Ochlockonee Bay Trailhead



Mashes Sands Beach



Wetlands at Purify Bay

BLUEWAYS ELEMENT



Spring Creek Canal

Canal dredging and navigation

Walker Street Pier (Panacea Area)

Road paving
Parking lot improvements
ADA accessibility
Reconstruction of historic pier

Wooley Park

Paving of parking area
Repaving walking path

Walker Street Boat Launch



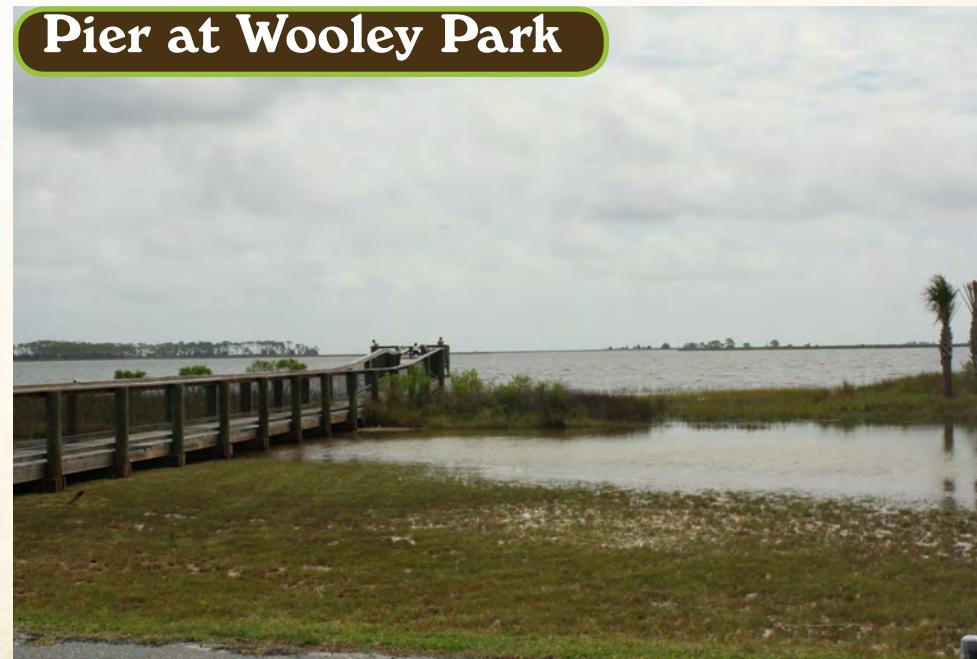
Camping Platform on the Suwannee River Wilderness Trail



Entrance sign to Wooley Park



Pier at Wooley Park





BLUEWAYS ELEMENT

Big Bend Maritime Center

Upgrades and renovation of existing building
Stabilized parking area
Stormwater and landscaping improvements
Renovation of existing boardwalk

Ochlockonee Bay Bicycle Trail

Trail head near Sopchoppy
Funding to complete Phase II and/or III
Equipment to maintain trail
Benches and resting area along trail
Funding for design, planning, and construction to expand trail into Sopchoppy

Bottoms Road Launch Site

Boat ramp rehabilitation
Canoe/Kayak Launch

Florida Circumnavigational Trail

At locations along the Florida Circumnavigational Trail it is recommended that camping platforms be added to provide users with designated areas to camp along the trail that would help separate them from changing tides and other natural features. Camping platforms can vary from a primitive plank design that contains no amenities to screened in platforms that have electricity, fans, and restroom/shower facilities.

Parking at Ochlockonee Bay Trailhead



Entrance to Big Bend Maritime Center



BLUEWAYS ELEMENT



Blueway Marketing and Tours

Based on input from the *Maritime Heritage Symposium: The Ecological, Historical, and Cultural Significance of Apalachee Bay*, held on August 30, 2011, and on recommendations from the Big Bend Scenic Byway Corridor Management Entity, the following paddling tours have been developed for the purposes of marketing Wakulla County's blueways. These tours can be used to develop itineraries that attract visitors to Wakulla County and promote geotourism in the area.

Apalachee Bay Maritime Heritage Paddling Trail

The portion of the trail in Wakulla, from Mashas Sands along the coast to the Refuge, will be developed and marketed as the Apalachee Bay Maritime Heritage Paddling Trail (Figure 29). The first portion to be developed will be from Panacea to St. Marks, uniting two Waterfront Florida Communities and linking to the Big Bend Scenic Byway. Over time, the Big Bend Maritime Center will be a focal point of activity, with one of the houses on the property devoted to Apalachee Bay, with charts, nature and heritage information, and parking for launching kayaks.

Paddling Around Piney Island

Overview: Loop trip from Bottoms Road boat launch near Panacea with picnic on Piney Island
Historical/Cultural Aspects: Seineyards, Saltworks, Goose Hunting
Natural Aspects: Apalachee Bay, St. Marks National Wildlife Refuge, island and marsh habitat, oyster bars. This route can be seen in Figure 30.

Tale of Two Rivers: The St. Marks and Wakulla Rivers

Overview: Launch at the US 98 bridge on St. Marks River and take-out at US 98 Bridge on Wakulla River with a lunch stop and visit at San Marcos de Apalache State Historic Park
Historical/Cultural Aspects: Towns of Magnolia, New Port, and St. Marks; Spanish Period; Civil War and Saltworks; WWII boat yards; State Historic Park
Natural Aspects: Two "Outstanding Florida Waters" and difference between them; Wildlife, including manatees, alligators, turtles, osprey, herons, ibis, and egrets.



Sopchoppy River



Wakulla Springs Lodge



BLUEWAYS ELEMENT

Inside Passage to Spring Creek

Overview: Launch at Bottoms Road and paddle near shore past Skipper Bay to Oyster Bay, traveling up scenic Spring Creek, taking out at the town of Spring Creek. Could add dinner at Spring Creek Restaurant. This route can be seen in Figure 31.

Historical/Cultural Aspects: Logging and Turpentine/Naval Stores; Seineyards; Commercial Fishing, Crabbing, and Oystering.

Natural Aspects: springs and karst topography, oyster bars, pine flatwoods, St. Marks National Wildlife Refuge; wildlife – oyster catchers, eagles, turtles, crabs, osprey, herons, ibis, wood storks, and egrets.

Fort San Marcos to St. Marks Lighthouse

Overview: Visit San Marcos de Apalachee State Historic Park then launch at St. Marks public landing, passing Port Leon, Spanish quarry sites, out into Apalachee Bay to St. Marks Lighthouse for take-out. This route can be seen in Figure 32.

Historical/Cultural Aspects: Towns of St. Marks and Port Leon; Spanish Period; Shipping and Trade; Navigation and Lighthouses

Natural Aspects: coastal habitat; St. Marks National Wildlife Refuge, wildlife – ducks, pelicans, turtles, osprey, herons, ibis, and egrets.

Paddling the Ochlockonee River through the Apalachicola National Forest

Overview: Put in at Pine Creek Landing to paddle this scenic bluewater trail and take out at Mack Landing. This route can be seen in Figure 33.

Paddling the Sopchoppy River to the Ochlockonee River State Park

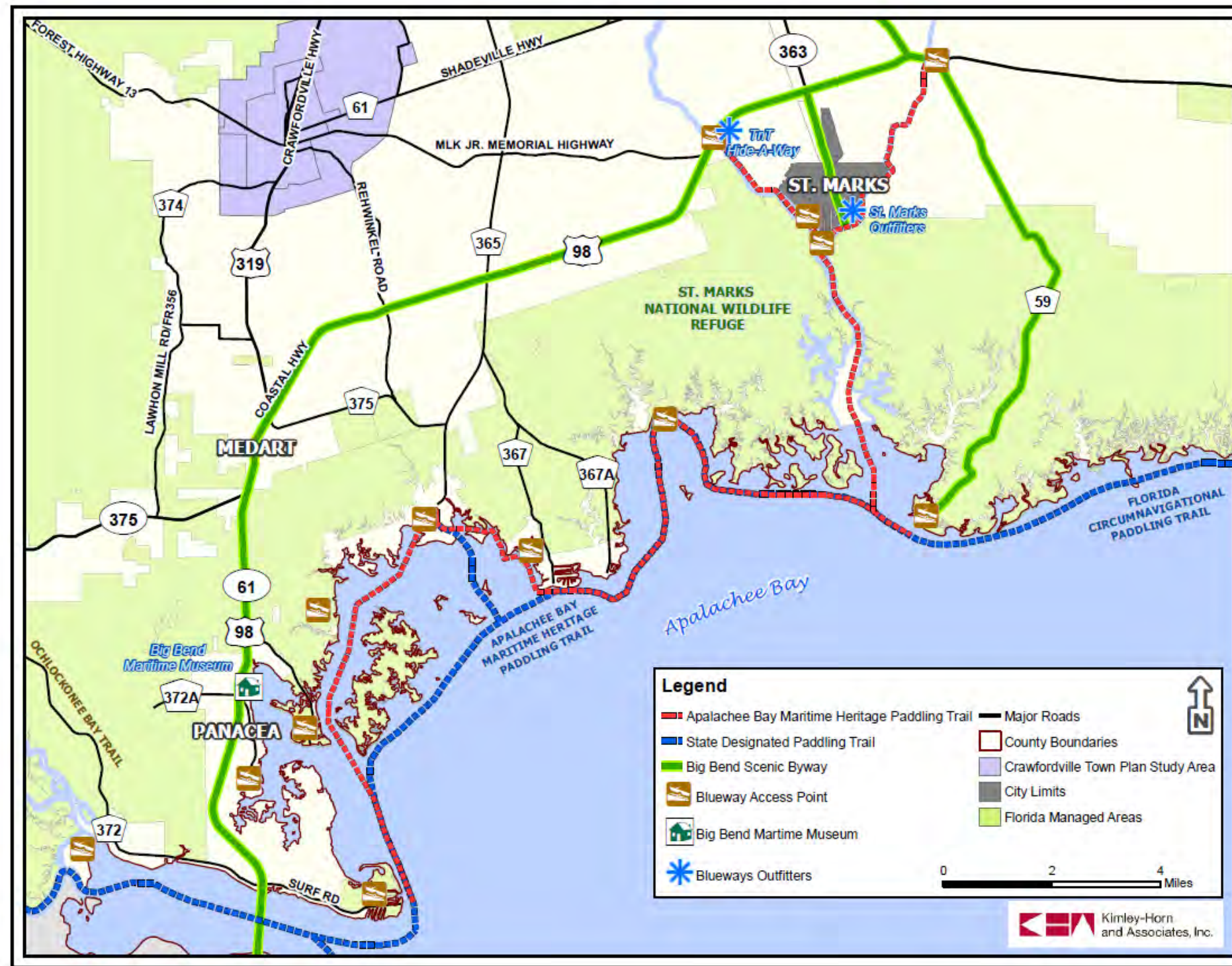
Overview: Visit historic Sopchoppy and the Railroad Depot, the put in at Myron B. Hodge City Park to paddle down the scenic Sopchoppy River, which gradually opens into vast saltmarsh planes to Ochlockonee River State Park, where you can walk trails to view the endangered Red-Cockaded Woodpecker. This route can be seen in Figure 34.



BLUEWAYS ELEMENT



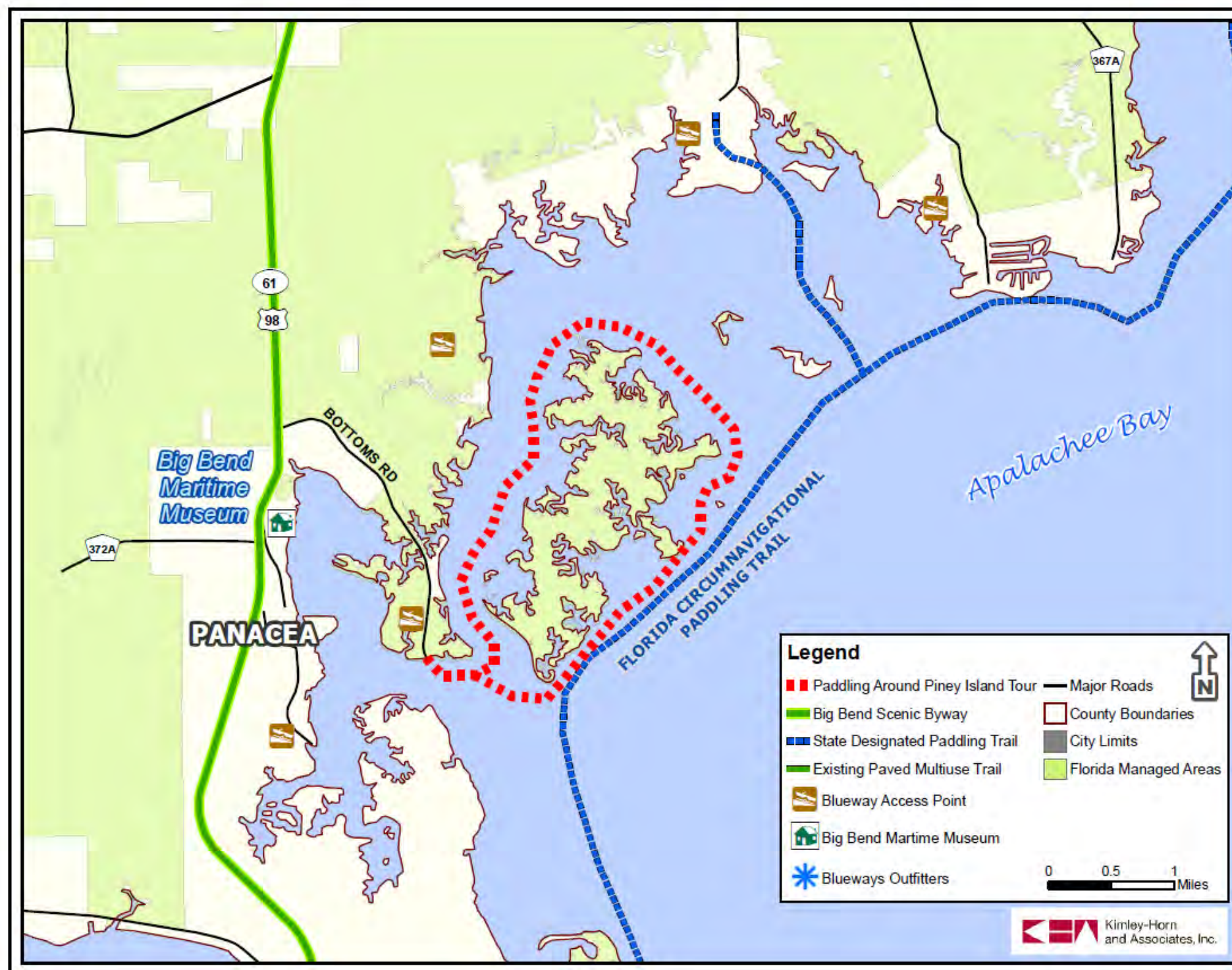
Figure 29: Apalachee Bay Maritime Heritage Tour





BLUEWAYS ELEMENT

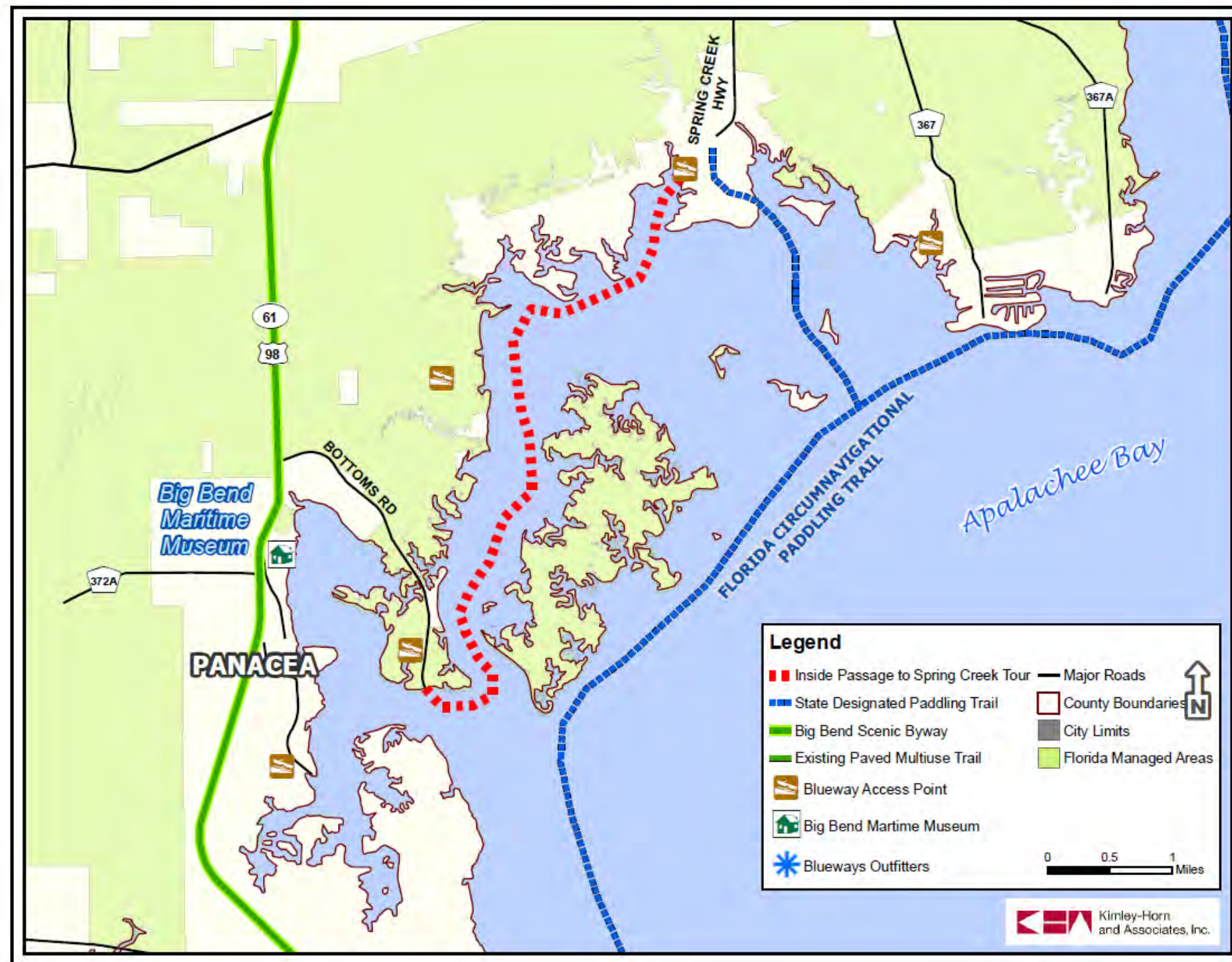
Figure 30: Paddling Around Piney Island Tour



BLUEWAYS ELEMENT



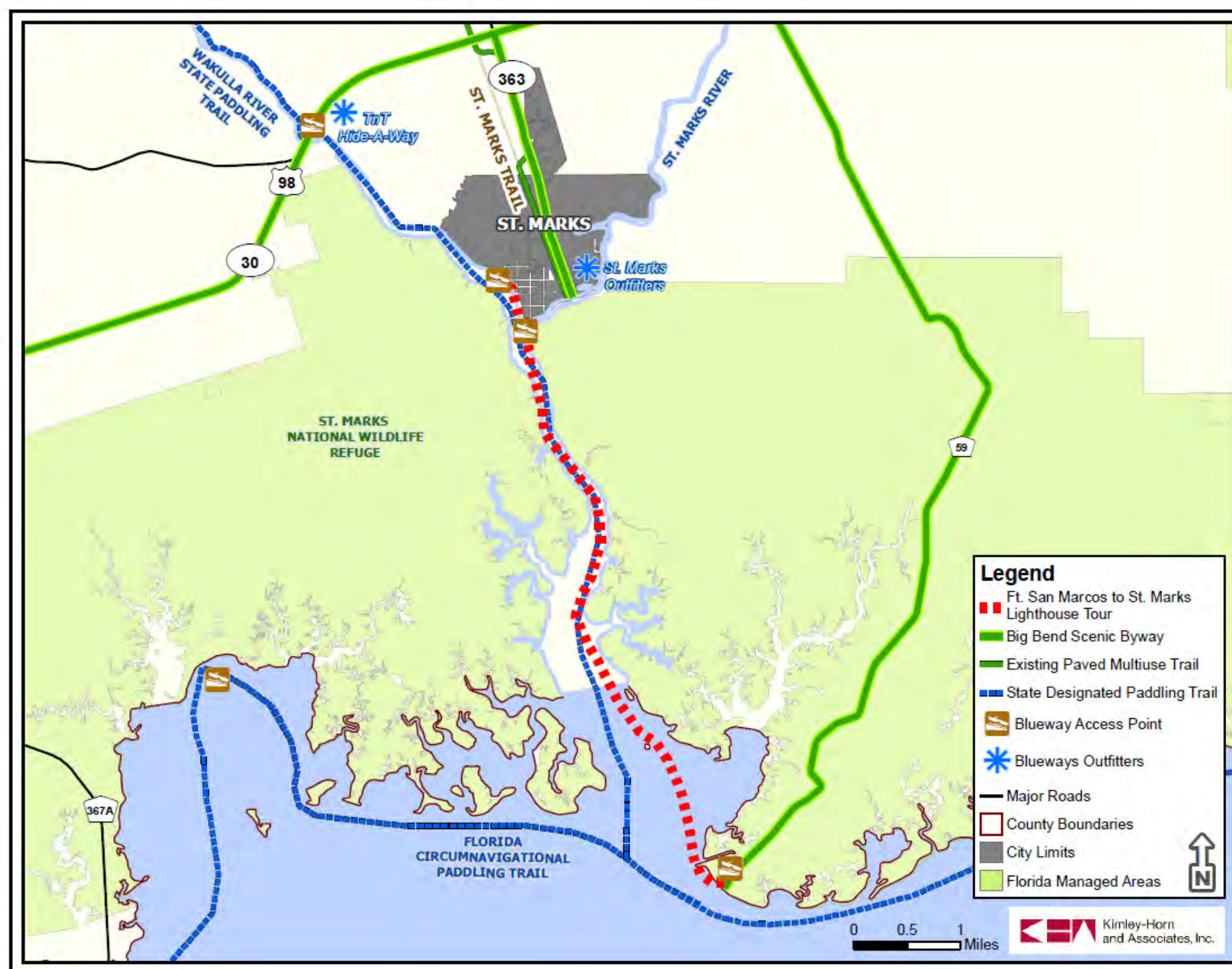
Figure 31: Inside Passage to Spring Creek Tour





BLUEWAYS ELEMENT

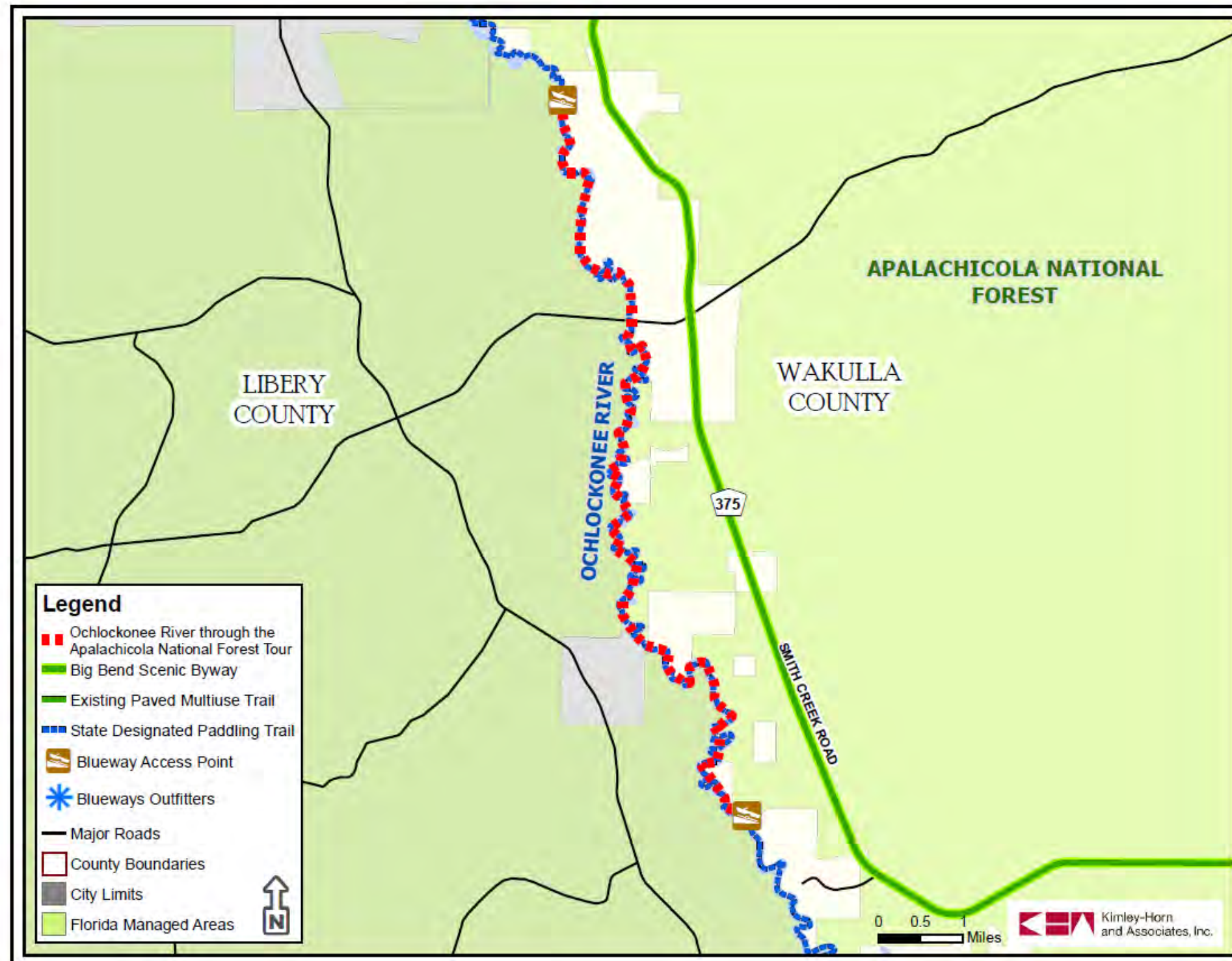
Figure 32: Ft San Marcos to St Marks Lighthouse Tour



BLUEWAYS ELEMENT



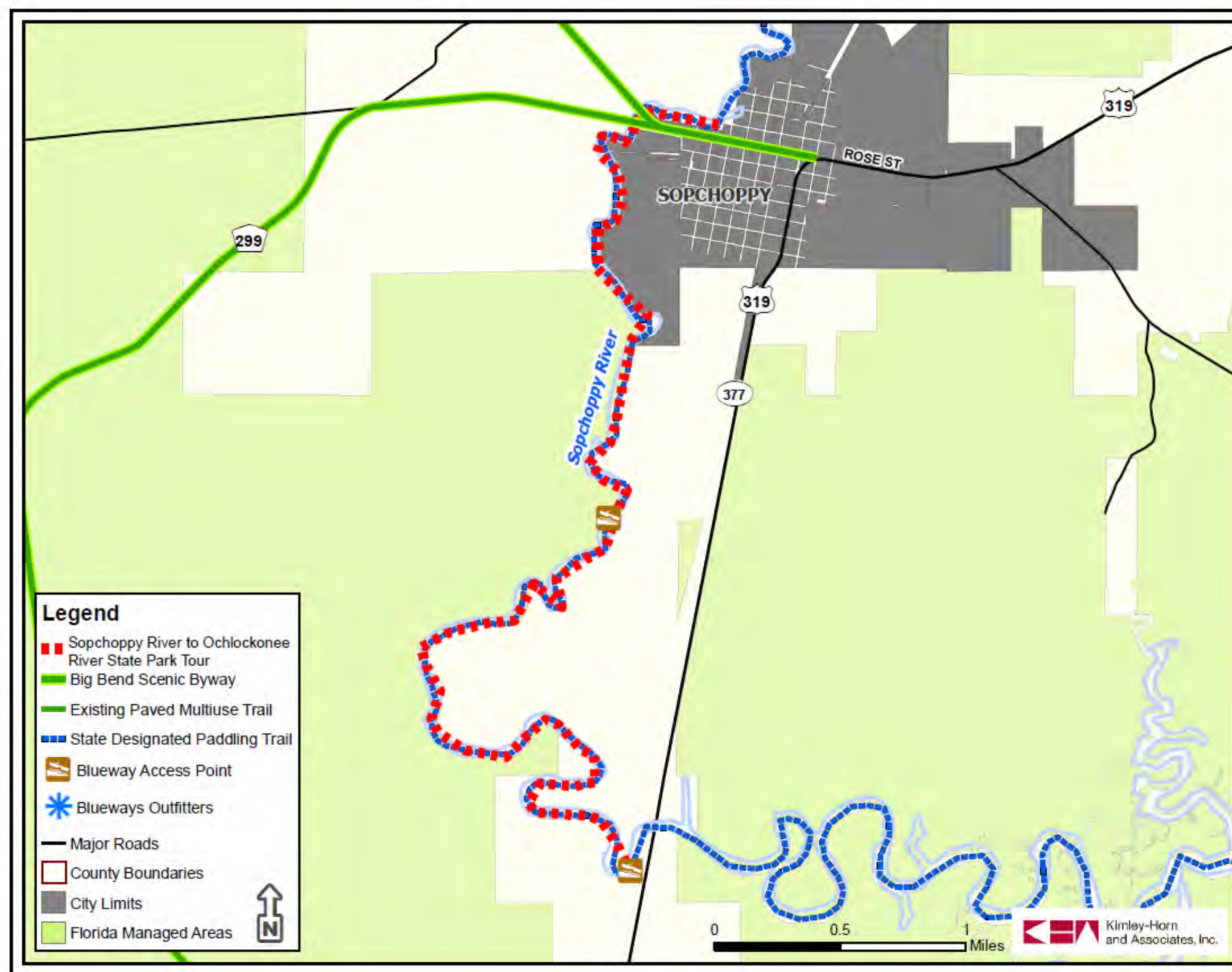
Figure 33: Ochlockonee River through the Apalachicola National Forest Tour





BLUEWAYS ELEMENT

Figure 34: Sopchoppy River to Ochlockonee River State Park Tour



BLUEWAYS ELEMENT



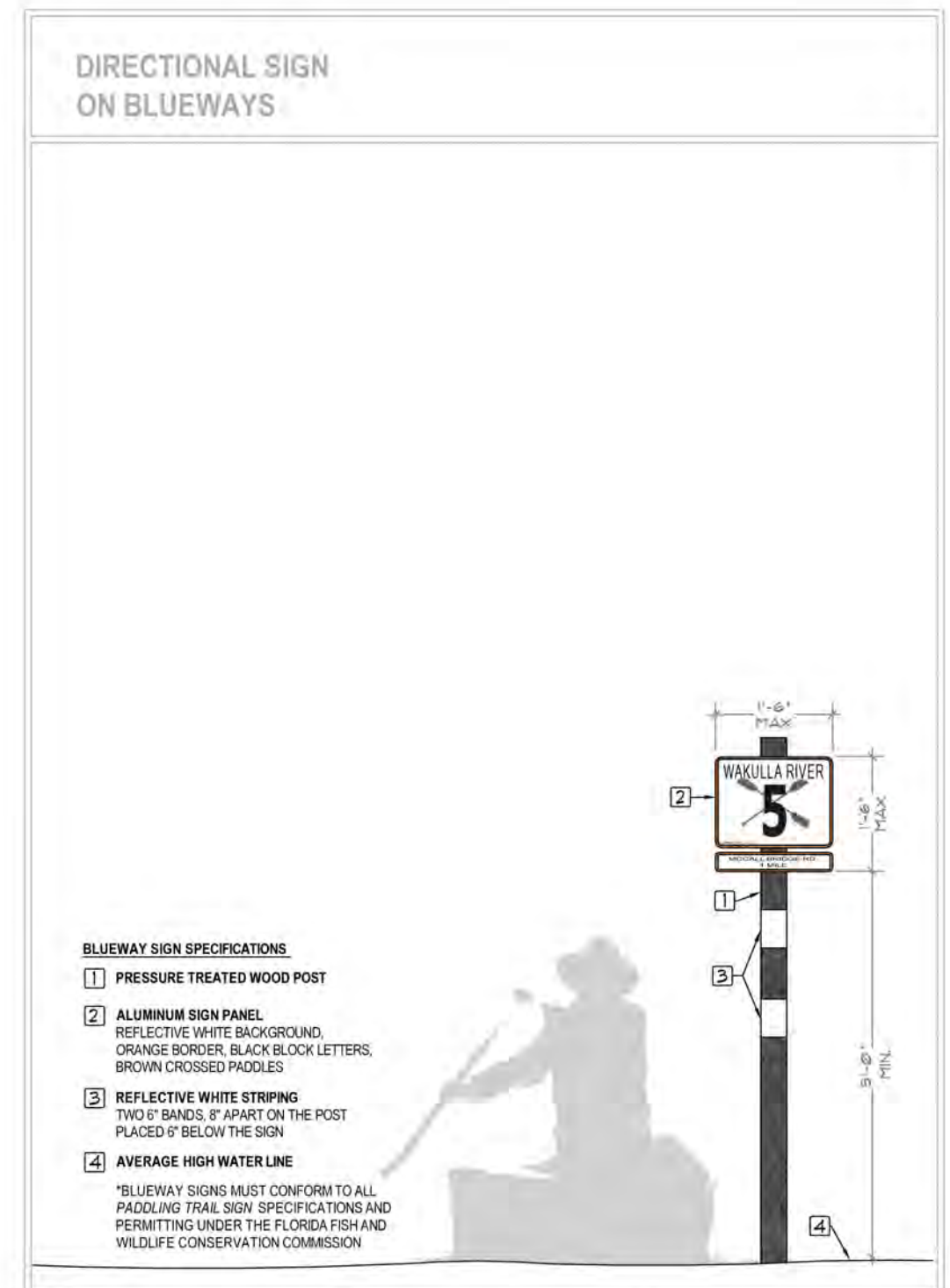
Blueway Signage Recommendations

Wakulla County should implement signage along major corridors, such as US 319, Woodville Highway, US 98, SR 267, Shadeville Highway, and Smith Creek Road, and at blueway access points in the County to help visitors to the County find locations where they can launch their canoes and kayaks.

It is not legal to design your own paddling trail signs. According to F.S. 327.41 and 68D-23.104 FAC, all waterway markers must comply with state and federal regulations in a standardized format. These signs are designed to be highly visible, increase safety, and easily recognizable across the State. Figure 35 illustrates the signage for blueways. These signs could be installed on the blueways as a means to identify mile markers, to clarify routes at specific decision points along the blueway, or to clearly mark access points. Signage on blueways requires permitting and often do not withstand severe weather conditions, therefore signage should be installed on land when feasible.



Figure 35: Blueway Signage





BLUEWAYS ELEMENT

Blueway Community Designation

Wakulla County offers many unique water features that provide the County with an opportunity to provide a service to residents and visitors that no other County in the area can. In order to capitalize on this we recommend that Wakulla County becomes a Designated Blueway Community by the Florida Paddling Trails Association (FPTA). FPTA states that “By working together on promotional products, educational resources and special events, FPTA and the Blueway Community can increase each other’s ability to apply for targeted grants to assist in the community’s efforts towards nature-based tourism development, economic development, and trail related infrastructure development.” Being designated as a Blueway Community would provide Wakulla County much needed recognition in addition to promoting the Counties natural resources to a wider market. The FPTA has four criteria for a County to apply to be a Designated Blueway Community. The four criteria are: 1) Proximity to a Florida paddling trail or Blueway, 2) Availability of accommodations, from hotels to bed and breakfasts to campgrounds, 3) Availability of restaurants and places to eat, 4) Additional outdoor recreation opportunities such as hiking and biking trails, birding, boating, fishing, beaches or traditional visitor draws such as historic districts, museums, shopping and major attractions. If FPTA finds that Wakulla County has met all those requirements then Wakulla community leaders will meet with Florida Paddling Trails Association representatives and agree to the concept of the designation as a Florida Paddling Trail Blueway Community. The proposal is brought before the Commission for approval. A proposed proclamation is provided by the Florida Paddling Trail Association. After the community issues the Proclamation, Memorandum of Understanding is signed which lists the responsibilities of each party. If Wakulla is designated as a Blueway Community then they must promote the FPTA by including them in brochures and monitoring visitors as well as installing two Blueway Community road signs at the entrances to the County, as seen to the left. Additional information on the process of becoming a Designated Blueway Community can be found at:

<http://www.floridapaddlingtrails.com/showpage.asp?page=blueway>



Proclamation

Wakulla County, Florida

WHEREAS, Wakulla County is in close proximity of many Blueways and paddling trails; and

WHEREAS, the Florida Paddling Trails Association is the Steward of the Florida paddling trails and continues as Florida's volunteer organization for developing and maintaining paddling trails throughout the State; and

WHEREAS, such paddling trails and Blueways provide a year-round source of pleasure and recreation to Florida's citizens and visitors to Florida; and

WHEREAS, many of the citizens in and around Wakulla County and other visitors and citizens of Florida are becoming more health conscious and are turning to paddling as one of the major forms of maintaining a healthy body; and

WHEREAS, Wakulla County is an ideal destination for many of today's visitors to the Sunshine State, and

WHEREAS, Wakulla County offers a variety of outdoor and cultural experiences to residents and visitors, and

WHEREAS, available supporting services and facilities such as lodging and restaurants make Wakulla County an outstanding heritage and nature-based tourism destination; and

WHEREAS, casual paddlers, day paddlers, and weekend paddlers want to enjoy the paddling opportunity, and Wakulla County can provide the gateway to their experience.

NOW THEREFORE, Wakulla County, Florida, does hereby proclaim Wakulla County a

FLORIDA PADDLING TRAIL BLUEWAY COMMUNITY

and commends the Florida Paddling Trail Association for its work in developing and maintaining Florida's paddling trails and further encourages all residents of and visitors to Wakulla County to paddle on the Wakulla County Blueways and paddling trails.

ATTEST:

IN WITNESS WHEREOF, I have hereunto set my hand and seal this ____ day of _____, 2011.

_____, County Clerk

_____, Chairman BOCC

SEAL

BLUEWAYS ELEMENT



Implementation

Figures 36 - 39 show typical designs of non-motorized boat launches as designed by the Florida Fish and Wildlife Commissions Guidelines for Developing Non-motorized Boat Launches in Florida.

Wakulla County should identify strategic partners, such as the Tourism Development Council, the Big Bend Scenic Byway, the Florida Department of Environmental Protection's Office of Greenways and Trails, the Florida Paddling Trails Association, the Forgotten Coast Kayak Anglers, local outfitters, and other local organizations to implement the recommendations of the blueways plan. Through these partnerships, Wakulla's blueways can be marketed to geotourists and programs, such as an adopt a blueway program, can be implemented. These partnerships may also be helpful when identifying and applying for grant funding. Partners can help identify grant opportunities, assist with completing the grant applications, and may be able to provide cash or in-kind match for grants.

The County should pursue a variety of funding strategies, including funding associated with Deepwater Horizon Gulf restoration, the Florida Boating Improvements Program, Land and Water Conservation grants, the Florida Recreation Development Assistance Program (FRDAP). The County should also coordinate with the Florida Division of Recreation and Parks, the Office of Greenways and Trails, the U.S. Forest Service, the National Wildlife Refuge, and individual municipalities for improvements in other jurisdictions within the County.

Figures 40a - 40c includes general cost estimates to assist with planning and funding the implementation for blueway facility recommendations.:

Opinions of probable costs provided are based on the information known to Consultant at this time and represent only the Consultant's judgment as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.



Sopchoppy River



BLUEWAYS ELEMENT

Figure 36: Natural Sites

Choose existing natural sites if available and appropriate



Robinson Preserve in Manatee County



Kayak Amelia



10

BLUEWAYS ELEMENT



Figure 37: Wooden Slat Dry Launch

Airboats use these wooden slats to 'dry launch' from a trailer but they are also utilized by paddlers to decrease hull damage from the concrete surface. Modify existing launch structures by adding wooden or PVC slats to make a launch NMB-friendly.





BLUEWAYS ELEMENT

Figure 38: Synthetic Turf Launch Site



The Great Calusa Blueway is using remnants of synthetic turf left over from installation in a stadium to surface these launches. They have installed it in an area with mucky soil by using pressure treated wood at both ends and 30" galvanized spikes spaced ~3' apart to hold it in place. This is inexpensive, not slippery, and is very popular with users. It will require cleaning with a pressure washer annually if in a sunny location and 3-4 times a year if sited in shady conditions.



BLUEWAYS ELEMENT



Figure 39: Synthetic Industrial Matting Launch Site



Synthetic industrial matting is used to stabilize surface on this launch along the Suwannee River. It can also be used to stabilize banks with a 2-4% slope and allows vegetation to grow through matting. It is anchored with 18-24" stainless steel pins and requires little maintenance. This launch is submerged frequently and has survived several flood events with no problems.





BLUEWAYS ELEMENT

Figure 40a: Summary of Blueway Recommendations and Cost Estimates

Blueways	Recommendation	Estimated Cost
Wakulla River Paddling Trail		
SW corner of the bridge CR 365	Install synthetic matting or turf	\$2,700 - \$3,600
	Install trash cans	\$250
	Install changing area	\$2,000
	Install restrooms	\$40,000
SE corner of the ridge on US 98	Install synthetic matting or turf on natural launch	\$2,700 - \$3,600
	Install trash cans	\$250
	Install changing area	\$2,000
	Install restrooms	\$40,000
	Install picnic tables and seating	\$450
	Install water spigot and basic boat cleaning amenities	\$1,200
St. Marks River Park	Install signage	\$3,500
	Install dry ramps	\$5,400
Wakulla River Park	Install signage	\$3,500
	Install dry ramps	\$5,400
	Total Cost (synthetic turf):	\$109,350
	Total Cost (synthetic matting):	\$111,150
St. Marks River		
Newport Campground	Install dry ramps	\$5,400.00
	Total Cost:	\$5,400.00
Sopchoppy River Paddling Trail		
Oak Park Cemetery Bridge	Listed for advanced users	N/A
Mount Beasor Church Bridge	Listed for advanced users	N/A
Myron B. Hodge City Park	Install dry launch	\$5,400.00
	Install synthetic matting or turf	\$2,700 - \$3,600
US 319 Bridge	Install synthetic matting or turf	\$2,700 - \$3,600
	Install trash cans	\$250.00
	Install picnic tables and seating	\$450.00
	Total Cost (synthetic turf):	\$11,500.00
	Total Cost (synthetic matting):	\$13,300.00
Ochlockonee River - Lower Paddling Trail		
Pine Creek Landing	Install dry ramps	\$5,400.00
	Install synthetic matting or turf	\$2,700 - \$3,600
Langston's Fish Camp	Install trash cans	\$250.00
	Install picnic tables and seating	\$450.00
Mack Landing Campground	Install dry ramps	\$5,400.00
	Install synthetic matting or turf	\$2,700 - \$3,600
Wood Lake Campground	Install dry ramps	\$5,400.00
	Install synthetic matting or turf	\$2,700 - \$3,600
	Total Cost (synthetic turf):	\$25,000.00
	Total Cost (synthetic matting):	\$27,700.00



Figure 40b: Surface Treatment Cost Estimates

Non Motorized Boat Launch Alternatives					
Surface Treatment	Additional Material	Assumed 12'x30' Ramp Size	Unit Cost	Project Cost	
Synthetic Stabilization Matting	Stainless Steel Pins	360 sq/ft	\$10 sq/ft	\$3,600	Includes \$2 psf for site prep, minor grading, leveling etc.
Wooden Slat Dry Launch	PVC Rails	360 sq/ft	\$15 sq/ft	\$5,400	Assumes an 8"x8" timber with PVC edging. Also assumes that concrete ramp is existing.
Synthetic Turf	Galvanized Staking, Wooden Anchor Boards	360 sq/ft	\$7.5 sq/ft	\$2,880	Includes \$2 psf for site prep, minor grading, leveling etc.
Natural Loading Area	Stabalized Rock Base, Clean Screened Sand	500 sq/ft	\$6 sq/ft	\$3,000	Assumes 8" stabilized road base with 6" of clean sand topping

Figure 40c: Additional Amenities Cost Estimates

Other Amenities	Description	Unit Cost
Benches	Typical wood park bench	\$350/each
Trash Cans	Simple 55-gallon drum hinged on two vertical posts	\$250/each
Restroom Building	Assumes 3 fixtures per sex (toilet, urinal, sink) with plumbing from well or potable source	\$40,000/each
Hose Bib	Freestanding near ramp	\$1,200/each
Changing Room	This could be a semi-private 3 or 4 sided wood structure - open air	\$2000/each
Picnic table	Typical Wood park style	\$450/each
Wood timber trail steps - in steep areas	Assume 6-8 steps average for steep slopes adjacent to ramp	\$1,750/each
Hand rails and approach deck	Assume two sides, 10-15' long	\$3,500/each

The Consultant has no control over the cost of labor, materials, equipment, or over the Contractor’s methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Consultant at this time and represent only the Consultant’s judgment as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

WAYFINDING SIGNAGE ELEMENT

Introduction

To support multimodal transportation in Wakulla County, a series of signage concepts were developed for the Bicycle, Pedestrian, and Blueways Master Plan. This signage includes recommendations for branding the County through a unified theme and for providing directions to key locations within the County. The overall purpose is to identify and lead visitors and residents to their destinations and various points of interest in Wakulla. The sign designs in the study are a design development guide providing typical sign type sizes, colors, font styles, and other detail. Prior to fabrication, sign manufacturers will need to provide construction drawings which show detail and engineering specifications to ensure safe installation. Applicable state and local permits may also be required.

Design Intent

Wayfinding signs should make a strong and consistent visual statement representing the character and image of Wakulla County. Signage should be bold and recognizable without confusing images or clutter. A limited color palette contributes to greater readability and clarity of message. The wayfinding signage system is meant to provide visitors guidance and information on various destinations within the County, as well as leave a lasting impression of quality, history, and community. In addition, the wayfinding signage system should be cost-effective and easily constructed so the system can be implemented and maintained at a reasonable expense.

Objectives of a Wayfinding System

- 1) Clearly define primary routes and entrance points in the County
- 2) Enable users to locate public parking adjacent to or in proximity of their intended destination
- 3) Create a hierarchy of directional information

Sign Family

The following components of the sign system were designed individually for optimal functionality while complementing each other in form and finish to create a unified sign family:

- Gateway features
- Vehicular directional signs
- Pedestrian directional signs
- Landmark identification signs
- Civic building identification signs

- Park identification signs
- Downtown banners
- Directional signs for bicyclists

Wayfinding Recommendations

Directional signage and wayfinding systems are fundamental design elements that are intended to provide assistance and direction to vehicle travelers, pedestrian, cyclist, and paddlers. This signage not only provides information about key destinations, but also provides a way to connect people to places of interest and unique local features. For Wakulla County, a comprehensive system of directional and wayfinding signage is recommended to address various modes of transportation in the County.

WAYFINDING SIGNAGE ELEMENT

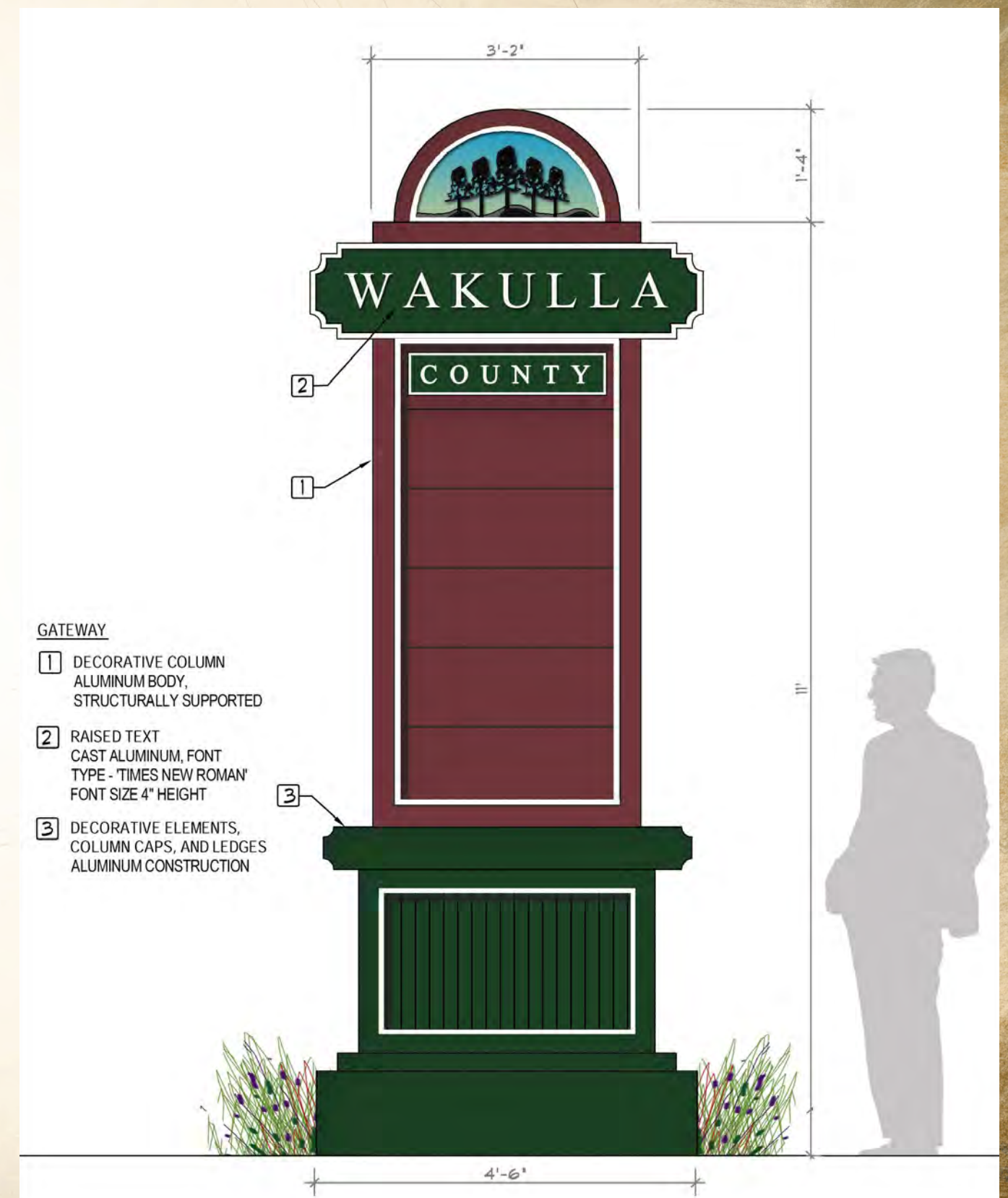


Gateway Signage

County gateway features announce the entrance into the Wakulla County. These features can provide the first impression a visitor has of the County and will define a sense of place in the area. Gateway features also define the sign theme for the County. Gateway features are recommended for Wakulla County at the primary entrances to the County. Possible locations include:

- North entrances on Crawfordville Highway and Woodville Highway
- South entrance on US 98

Gateway features were designed by the Tourism Development Council and have a coastal theme, this design can be seen below. Concurrent with the development of the Wakulla County Bicycle, Pedestrian, and Blueways Master Plan gateway features were developed and fabricated by the Tourism Development Council (TDC). Although these features do not form a unified system of signage throughout the County, they do incorporate a coastal theme, leverage the TDC's graphics, and provide information about the TDC that visitors can use to learn more about the tourism options in the County.





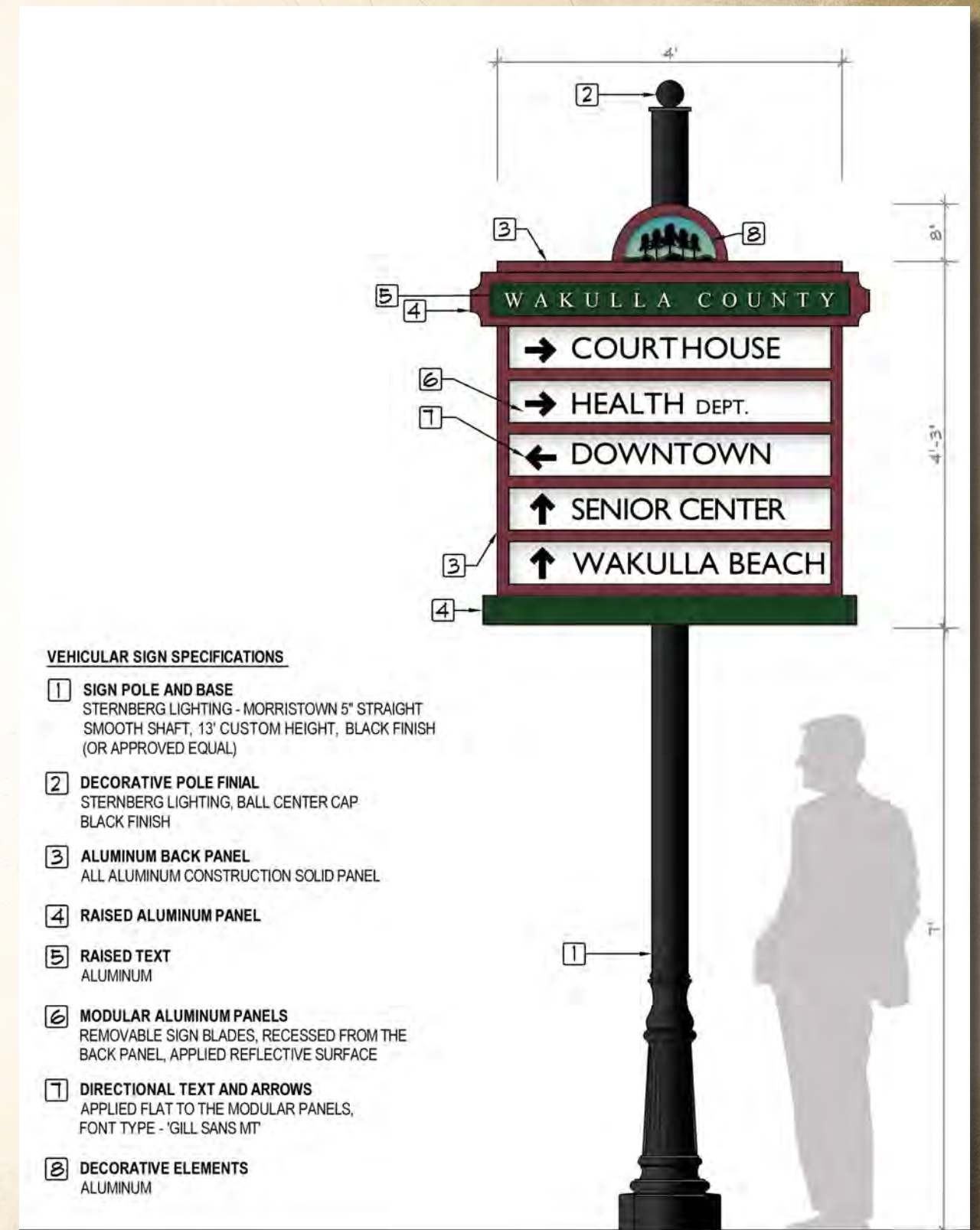
WAYFINDING SIGNAGE ELEMENT

Vehicular Directional Signage

Vehicular directional signage is needed throughout the county to get vehicular travelers to their final destination. It is recommended that this signage be placed at key intersections and along major corridors. When implemented correctly, these signs should act as “confidence markers” along the way, meaning that they should reaffirm the traveler that they are en route to their desired destination. It is suggested that these signs be placed along the following corridors:

- Crawfordville Highway
- Woodville Highway
- Wakulla Arran Road
- Shadeville Highway
- Martin Luther King Jr. Memorial Boulevard
- US 98

It is also recommended that signs be placed at key intersections in downtown Crawfordville, Panacea, Sopchoppy, and St. Marks.



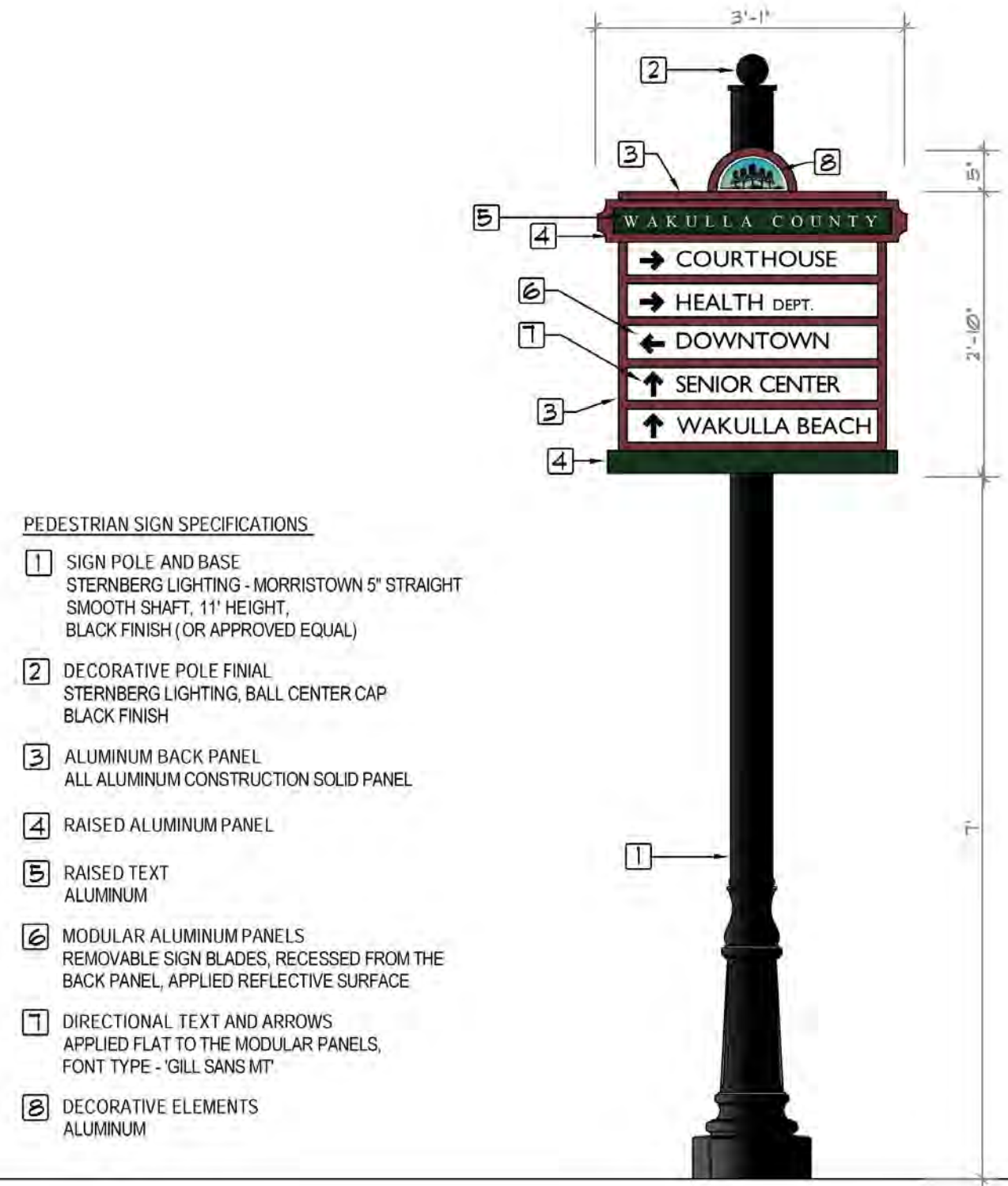
WAYFINDING SIGNAGE ELEMENT



Pedestrian Directional Signage

Pedestrian signage is used to direct pedestrians within a community to their final destination. These signs are very similar to vehicular directional signs, but are usually built to a smaller scale. Also, because they are mainly being used by pedestrians, the destinations listed on them are usually located within a reasonable walking distance. It is recommended that pedestrian directional signage be located in the following areas:

- Downtown Crawfordville
- The City of Sopchoppy
- The City of St. Marks
- Panacea



WAYFINDING SIGNAGE ELEMENT

Informational Kiosks

Kiosks should be located in areas that have numerous destinations within a small area. Kiosks typically include a map of the area and highlight popular destinations. It is also possible to include local businesses on the kiosks. To do this, space would be sold to local businesses and in return they would be able to advertise on the kiosk. This helps the County pay for the signage and acts as an economic driver for local businesses. Kiosk features are most useful when located in close proximity to the areas that they are promoting, therefore kiosk features are recommended for the following locations:

- Downtown Crawfordville
- The City of Sopchoppy
- Panacea
- The City of St. Marks

KIOSK SPECIFICATIONS

- 1 SIGN POLE AND BASE
STERNBERG LIGHTING - MORRISTOWN 5"
STRAIGHT SMOOTH SHAFT, 8' HEIGHT,
BLACK FINISH (OR APPROVED EQUAL)
- 2 DECORATIVE POLE FINIAL
STERNBERG LIGHTING, BALL
CENTER CAP BLACK FINISH
- 3 RAISED ALUMINUM PANEL
- 4 RAISED TEXT
ALUMINUM
- 5 DECORATIVE ELEMENTS
CAST ALUMINUM
- 6 DISPLAY CASE
CLEAR PROTECTIVE COVER,
STAINLESS LOCKS, FULL PIANO HINGE
- 7 DISPLAY CASE BORDER
ALUMINUM CONSTRUCTION, 2" THICK



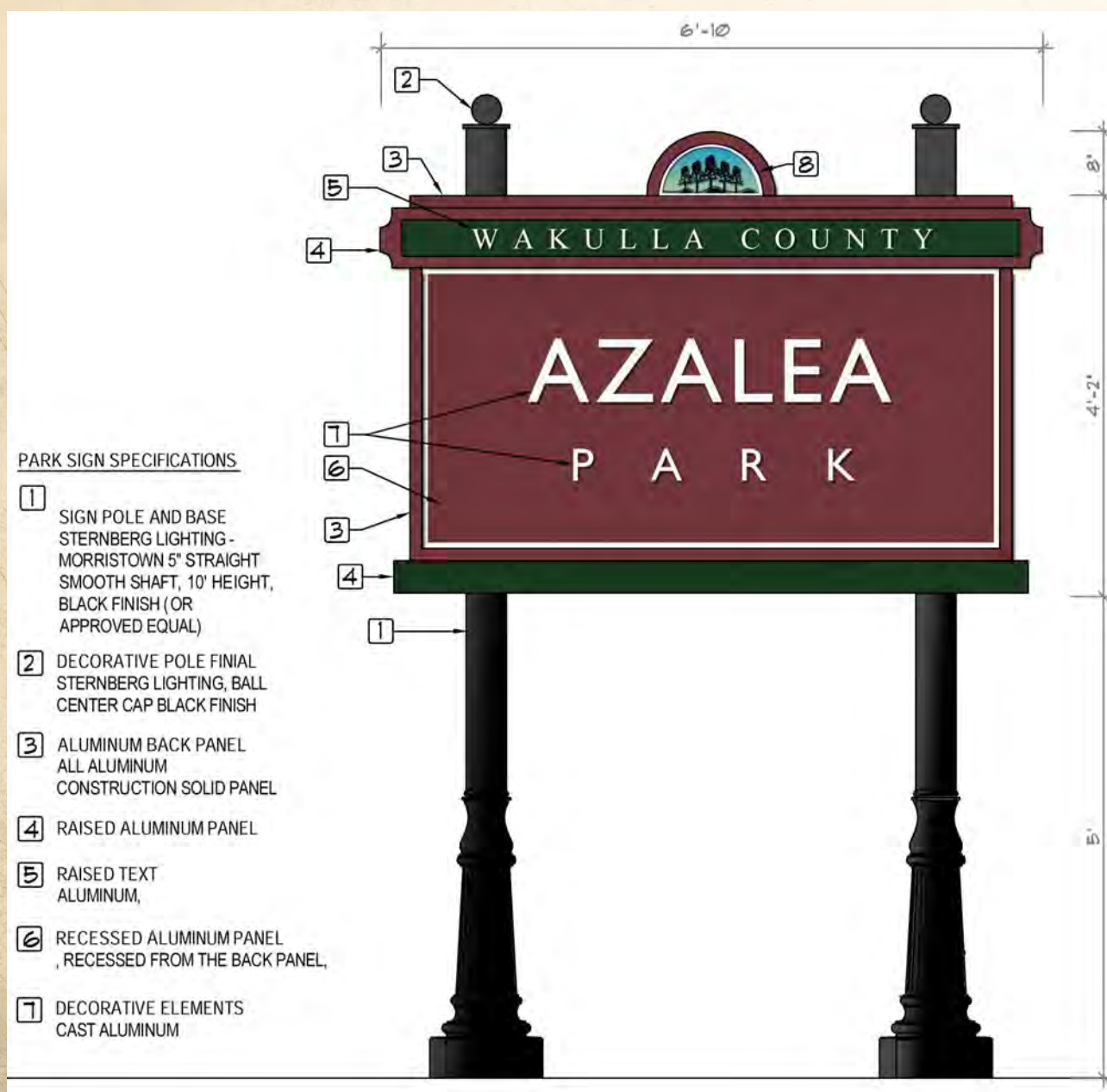


WAYFINDING SIGNAGE ELEMENT

Park Identification Signage

Park signage should be located at the entrance to each County Park. These signs should serve to inform visitors and residents that they have arrived at their destinations. At a minimum park signage should include the name of the park with design features similar to the other signs in the County. These signs would be appropriate for installation at the following parks:

- Azalea Park
- Hickory Park
- Hudson Park
- Mashers Sands
- Medart Park
- Newport Campground
- Shell Point Beach
- Woolley Park



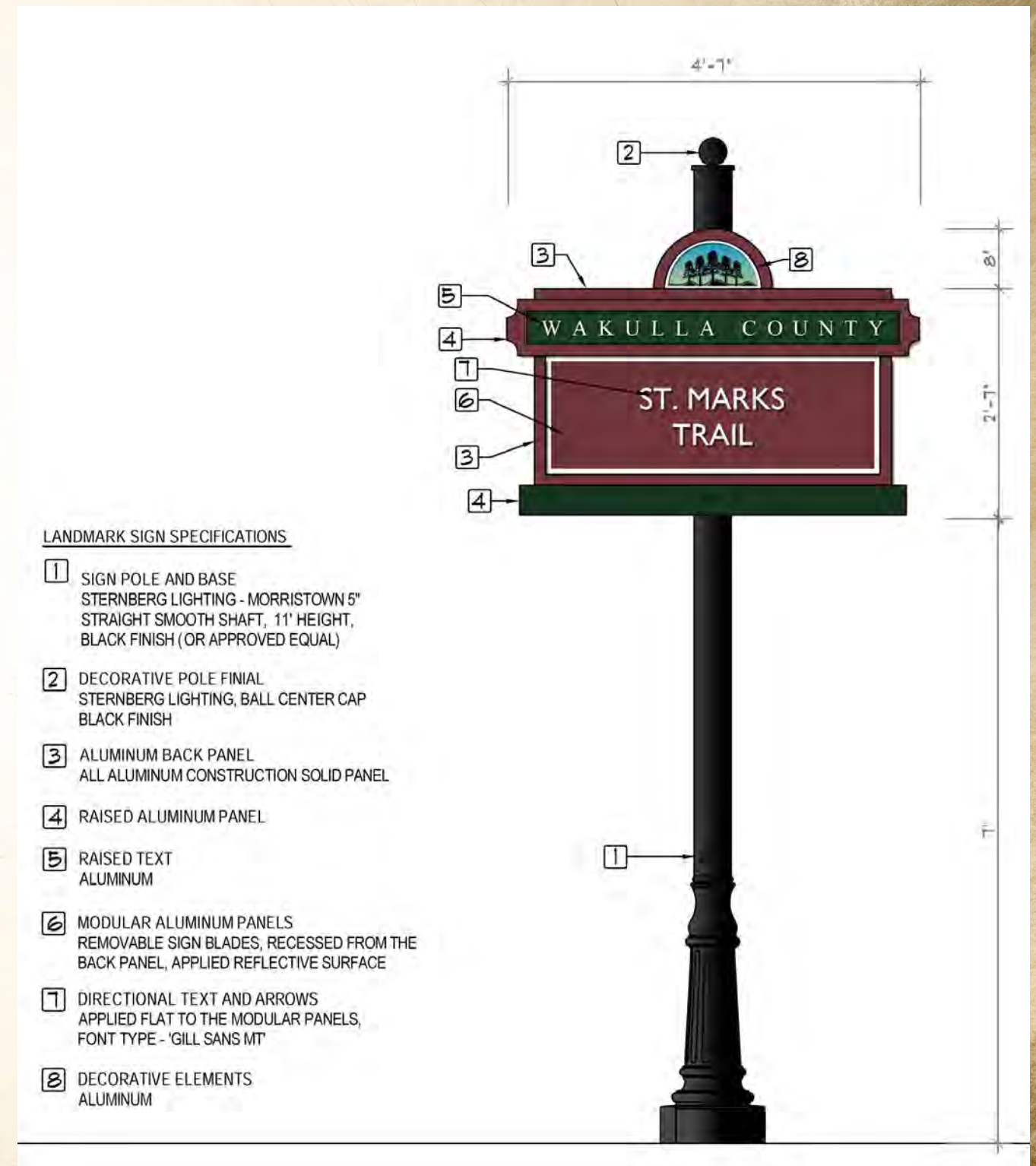
WAYFINDING SIGNAGE ELEMENT



Landmark Identification Signage

Landmark signage should be used at all key destinations throughout Wakulla County. These signs should notify passing pedestrians and motorists of the name and location of the destination. Landmark signs should be the same style as the other proposed signage to create a sense of place and community within Wakulla. Ideal locations for landmark signage in the county are:

- St. Marks Lighthouse (in coordination with the National Wildlife Refuge)
- Old County Courthouse
- St. Marks Trail
- Sopchoppy Train Depot (in coordination with the City of Sopchoppy)
- Ochlockonee Bay Trail





MARKETING STRATEGY



Wakulla County Bicycle and Blueway Trail Network Marketing Plan

Marketing Purpose

The Wakulla Bicycle and Blueway Trail Network (WBBTN) represents a significant marketing tool for rural economic development. In recognition of this fact, this marketing plan describes strategies and initiatives designed to increase local usage, tourism visitation, and traveler length of stay, as well as to help expand the tourism-related economy of Wakulla County.

The opportunity to showcase the unique characteristics of the WBBTN will be developed through an integrated, multi-faceted Marketing Plan. The Plan will target separate audiences to: (1) increase tourist visitation and overnight stays in Wakulla County by promoting the WBBTN as a new component of its world class nature- and heritage-based tourism attractions; and (2) promote the multiple health benefits of bicycling and paddling to area youth and residents for recreation and fitness.

Marketing Approach

This plan reflects the philosophy that all Bicycle and Blueway Trail marketing should be tailored to complement existing Wakulla County marketing initiatives. It is our belief that a combination of low tech and high tech strategies has the best chance of success in the rural, resource-limited environment that characterizes Wakulla County.

The Wakulla County Tourist Development Council will take the lead on all tourist-related marketing initiatives through its website and social media platforms, as well as in collateral publications.

The Wakulla County Extension Office, through the Family and Consumer Sciences section of the University of Florida's Institute of Food and Agricultural Sciences (IFAS), will complement the work of the WCTDC by marketing the health and fitness benefits offered by the WBBTN to Wakulla County youth and residents.

Implementation of the WBBTN and elements of the Bicycle, Pedestrian, and Blueway Master Plan can encourage children to walk and bicycle safely through improvements to basic infrastructure—sidewalks, bike lanes, trails, pathways, and crosswalks. Marketing initiatives can:

- Encourage students and families to be physically active by walking, paddling, and bicycling more often.
- Enable students to use trails, pathways, and non-motorized corridors as travel routes to schools
- Use events and activities to promote walking, paddling, and bicycling
- Give youth the sense of freedom and responsibility, and the opportunity to enjoy fresh air, be alert, and refreshed





GOWAKULLA MOBILE APP

GoWakulla Mobile Application (App)

In coordination with the Wakulla County Bicycle, Pedestrian, and Blueway Master Plan and the existing marking strategy, a mobile app has been launched for use on Apple iOS devices (iPhone, iPad, and iTouch). This app contains information that directs users to multiple activity destinations throughout Wakulla County and is the first mobile app for the promotion of County-wide ecotourism developed for a local government in Florida. The activity destinations included in the mobile app include:

- Bicycling
- Blueways
- Hiking
- Parks
- Scenic Byways
- Key Local Destinations



Other features include links to local events, links to local businesses via the Wakulla County Chamber of Commerce, and access to the Wakulla County Tourist Development Council's Facebook and Twitter pages.

As funding becomes available, an Android-compatible version of the mobile app may be released and additional functionality may be incorporated for both the iOS and Android versions of the mobile app. The app be downloaded for free at:
<http://itunes.apple.com/us/app/gowakulla/id529243495>



Mobile App Screen Shots

IMPLEMENTATION STRATEGY



INTRODUCTION

The projects identified in this Master Plan were developed with a focus on implementation. To act as a catalyst for the implementation of this Bicycle, Pedestrian, and Blueways Master Plan, a feasibility Report was completed for the primary multiuse trail connections identified for the County. An executive summary of the Feasibility Study is included in this section of the Bicycle, Pedestrian, and Blueways Master Plan. Also included are planning cost estimates and potential funding sources for the recommended projects.

Wakulla County Bicycle, Pedestrian, and Blueways Master Plan Feasibility Study Executive Summary

INTRODUCTION

A feasibility study was conducted for the US 98 corridor. A feasibility study is intended to assess whether constraints exist that preclude the project from being built. Additionally, a feasibility study can be used to seek funding from various sources and for budgeting purposes.

PURPOSE AND NEED

The primary purpose of the corridor is to provide a bicycle and pedestrian facility that will enhance multimodal mobility by providing a connection across the county. The US 98 corridor will provide a connection from the St. Marks Trail, across the county, through multiple commercial and residential areas. This connection will allow the county to capitalize on existing infrastructure and promote future growth and economic development.

CONCEPT DEVELOPMENT

Several potential corridors were identified that would provide mobility improvements and important connections. The corridors were identified, ranked, and prioritized by considering the following efforts:

- Field review of existing conditions
- Stakeholder Interviews
- Coordination with County employees
- Input received during the Public Workshop

Based on opportunities that were identified in the field reviews and the stakeholder interviews, it was determined that the US 98 Corridor was the top priority for new multimodal improvements. (Note: Phase 5 of the Ochlockonee Bay Trail is the number one priority for funding because it has already been completed through design). The corridor is anticipated to take the form of an multiuse trail, characterized by an 10-12' wide asphalt path. Since the trail will serve two-way traffic, it is not necessary to have a path on each side of a given roadway. When possible, the bike/pedestrian corridors would be separated from the road by a curb and a landscaped buffer. At cross streets, ADA compliant ramps will be provided, with enhanced crosswalk features when appropriate. Cost estimates, potential funding sources, and proposed recommendations can be seen in Figures 41a - 41h.

Figure 41a: Signage Cost Estimates

Wayfinding Signage Estimates	Estimated Cost Per Sign
Gateway Signage	\$10,000 to \$15,000
Park Signage	\$3,000 to \$4,000
Vehicular Directional Signage	\$5,000 to \$6,000
Pedestrian Vehicular Signage	\$3,000 to \$4,00
Landmark Signage	\$2,000 to \$3,000
Civic Building Signage	\$2,500 to \$3,500



IMPLEMENTATION STRATEGY

Figure 41b: Multiuse Trails Cost Estimates

Segment	Recommendation/Description	Length	Improvement(s)	Coordination with Other Agencies/Property Owners	Part of Capital City to the Sea Loop Trail	Funding Source	Next Steps for Project Implementation	Cost/Mile	Estimated Cost of Project
Multiuse Trails									
Ochlockonee Bay Trail - Phase 5	Phase 4 to Sopchoppy Highway	0.95 mi.	8-10 foot multiuse trail	Wakulla County, City of Sopchoppy	No	CRTPA, CRTPA Capital City to the Sea Loop Trail Funding, Transportation Enhancement Grant, General Funds	Construction	\$340,073	\$323,069
US 98 Corridor	Ochlockonee Bay Trail to CR 59 (Lighthouse Road)	24 mi.	10-12 foot multiuse trail	FDOT	Yes	CRTPA, CRTPA Capital City to the Sea Loop Trail Funding, Transportation Enhancement Grant, General Funds	Design	\$340,073	\$8,161,752
Martin Luther King Jr. Memorial Road	US 319 to US 98	6.2 mi.	10-12 foot multiuse trail	Wakulla County, homeowners, utilities	No	Recreational Trails Program, Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$2,108,453
SR 267 Connector	St. Marks Trail to Rosa Shingles Road	2.9 mi.	10-12 foot multiuse trail	FDOT	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$986,212
Arran Road Connector	US 319 to Forest Highway 13	3.3 mi.	8-10 foot multiuse trail	Wakulla County, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$1,122,241
Spring Creek Highway	SR 267 to Shadeville Highway	4.0 mi.	8-10 foot multiuse trail	FDOT, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$1,360,292
Shadeville Highway	US 319 to St. Marks Trail	9.4 mi.	8-10 foot multiuse trail	FDOT, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$3,196,686
Sopchoppy Highway	US 98 to Railroad Street	5.8 mi.	8-10 foot multiuse trail	FDOT, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$1,972,423
Curtis Mills Road	Railroad Street to US 319	8.0 mi.	8-10 foot multiuse trail	Wakulla County	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$2,720,584
SR 267 Connector	GF&A Trail to Rosa Shingles Road	9.4 mi.	8-10 foot multiuse trail	FDOT, homeowners	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$3,196,686
CR 59 St. Marks Connector	CR 59 to Port Leon Drive	1.5 mi.	8-10 foot multiuse trail	Wakulla County, Wildlife Refuge	No	Transportation Enhancement Grant, General Funds	Feasibility Study	\$340,073	\$510,110

IMPLEMENTATION STRATEGY



Figure 41c: Sidewalk Cost Estimates

	Segment	Recommendation/Description	Length		Improvement(s)	Coordination with other Agencies/Property Owners	Funding Source	Next Steps for Project Implementation	Cost/Mile	Estimated Cost of Project
Crawfordville										
	Wakulla Arran Road	Oak Street to US 319 to Trice Lane	1.04	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$165,572
	Trice Lane	Wakulla-Arran Road to Shadeville Highway	0.91	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$144,876
	Taff Drive	US 319 to Trice Lane	0.36	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$57,313
	Harvey Pittman Road	Trice Lane to Mimosa Street	0.44	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$70,050
	Mimosa Street	US 319 to Hickory Street	0.33	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$52,537
	Cottonwood Avenue	Mimosa Street to Dogwood Drive	0.08	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$12,736
	Dogwood Drive	US 319 to Dispennette Drive	0.09	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$14,328
	Dispennette Drive	Dogwood Drive and Shadeville Highway	0.19	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$30,249
	Mary Avenue	US 319 and Dispennette Drive	0.13	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$20,697
	Oak Street	US 319 to Michael Drive	0.61	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$97,114



IMPLEMENTATION STRATEGY

Figure 41d: Sidewalk Cost Estimates

	Myrtle Avenue	US 319 to Oak Street	0.17	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$27,065
	Cherry Avenue	Azalea Drive to Oak Street	0.15	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$23,881
	Azalea Drive	US 319 to Wakulla-Arran Road	0.5	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$79,602
	Ochlockonee Street	Arran Road to Cedar Avenue	0.6	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$95,522
	Feli Way	Shadeville Highway to MLK Jr. Memorial Road	0.24	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$38,209
	Bream Fountain Road	Rehwinkel Road to US 319	0.45	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$71,642
	Rehwinkel Road	MLK Jr. Memorial Road to Dan's Drive	0.4	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$63,682
	Cedar Avenue	US 319 to end	0.19	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$30,249
	Sabal Palm Drive	Ochlockonee Street to Pine Way Street	0.14	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$22,289
	Dogwood Drive	US 319 to Pine Way Street	0.19	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$30,249
	Ivan Church Road	US 319 to Bridle Gate Drive	0.37	mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$58,905

IMPLEMENTATION STRATEGY



Figure 41e: Sidewalk Cost Estimates

St. Marks									
	Pirates Cove Lane	Fire Escape Road to end	0.1 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$15,920
	Shell Island Road	Port Leon Drive to City Park Avenue	0.4 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$63,682
	Ward Street	Fire Escape Road to St. Marks Trail	0.2 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$31,841
	Whaley Street	St. Marks Trail to end	0.2 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$31,841
	Crabapple Lane	City Park Avenue to Union Street	0.4 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$63,682
	Riverside Drive	Union Street to end	0.4 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$63,682
	Port Leon Drive	Riverside Drive to Shell Island Road	0.5 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$79,602
	Little Street	Forbes Street to Ward Street	0.1 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$15,920
	Fire Escape Road	Pirates Cove Lane to Crabapple Lane	0.4 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$63,682
	City Park Avenue	Old Fort Road to Shell Island Road	0.5 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$79,602



IMPLEMENTATION STRATEGY

Figure 41f: Sidewalk Cost Estimates

Panacea									
	Otter Lake Road	US 98 to Otter Lake	1.6 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds		\$159,204	\$254,726
	Jer-Be-Lou Boulevard	Along the Length of the Corridor		crosswalk and ramp installation	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$2,500	\$2,500
	Walker Street	Along the Length of the Corridor		crosswalk and ramp installation	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$2,500	\$2,500
	Mound Street	Along the Length of the Corridor		crosswalk and ramp installation	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$2,500	\$2,500
	Piney Street	Along the Length of the Corridor		crosswalk and ramp installation	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$2,500	\$2,500
	Panacea Welcome Center	Along the Length of the Corridor		crosswalk and ramp installation	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$2,500	\$2,500
Sopchoppy									
	Park Avenue	Gulf Street to City Park	0.4 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$63,682
	Gulf Street	Park Avenue to Municipal Avenue	0.3 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$47,761
	Yellow Jacket Road	Gulf Street to Mill Street	0.5 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$79,602
	Municipal Avenue	Gulf Street to Rose Street	0.7 mi.	5' wide concrete sidewalk	Utilities	Transportation Enhancement Grant, General Funds	Apply for Funding	\$159,204	\$111,443

IMPLEMENTATION STRATEGY



Figure 41g: Blueway Cost Estimates

Blueway Improvements		Recommendation	Cost Estimate	Coordination Needed	
Wakulla River					
	SW corner of the bridge CR 365	Install synthetic matting or turf	\$2,700 - \$3,600	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install trash cans	\$250	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install changing area	\$2,000	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install restrooms	\$40,000	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
	SE corner of the ridge on US 98	Install synthetic matting or turf on natural launch	\$2,700 - \$3,600	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install trash cans	\$250	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install changing area	\$2,000	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install restrooms	\$40,000	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install picnic tables and seating	\$450	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install water spigot and basic boat cleaning amenities	\$1,200	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
	St. Marks River Park	Install signage	\$3,500	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install dry ramps	\$5,400	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
	Wakulla River Park	Install signage	\$3,500	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install dry ramps	\$5,400	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Total Cost (synthetic turf):	\$109,350		
		Total Cost (synthetic matting):	\$111,150		
St. Marks River					
	Newport Campground	Install dry ramps	\$5,400.00		
		Total Cost:	\$5,400.00		



IMPLEMENTATION STRATEGY

Figure 41h: Blueway Cost Estimates

Sopchoppy River Paddling Trail					
	Oak Park Cemetery Bridge	Listed for advanced users	N/A	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
	Mount Beasor Church Bridge	Listed for advanced users	N/A	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
	Myron B. Hodge City Park	Install dry launch	\$5,400.00	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install synthetic matting or turf	\$2,700 - \$3,600	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
	US 319 Bridge	Install synthetic matting or turf	\$2,700 - \$3,600	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install trash cans	\$250	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install picnic tables and seating	\$450	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Total Cost (synthetic turf):	\$11,500		
		Total Cost (synthetic matting):	\$13,300		
Ochlockonee River - Lower Paddling Trail					
	Pine Creek Landing	Install dry ramps	\$5,400	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install synthetic matting or turf	\$2,700 - \$3,600	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
	Langston's Fish Camp	Install trash cans	\$250	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install picnic tables and seating	\$450	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
	Mack Landing Campground	Install dry ramps	\$5,400	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install synthetic matting or turf	\$2,700 - \$3,600	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
	Wood Lake Campground	Install dry ramps	\$5,400	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Install synthetic matting or turf	\$2,700 - \$3,600	Office of Greenways and Trails, Parks Department, Public Works	BP Coastal Grants, General Funds
		Total Cost (synthetic turf):	\$25,000		
		Total Cost (synthetic matting):	\$27,700		

CONCLUSION



Conclusion

Wakulla County Bicycle, Pedestrian, and Blueways Master Plan is the result of the Wakulla County proactively working to improve the safety and quality of life of its residents and visitors. Through substantial collaboration among County Officials and Staff, Municipal Representatives, local businesses, other key stakeholders, and the general public, the recommendations included in this Plan were created, refined, and prioritized. As the recommendations outlined in this Plan are implemented, the tremendous resources within and around the County, such as the St. Marks Trail, the numerous parks, as well as beautiful natural features will be enhanced and connections will be made to connect origins and key destinations together, thereby improving the conditions for pedestrians and cyclists. As the policies and facilities recommended in this Plan are adopted and facilities are constructed, the County should be closer to its goal of providing a safe and efficient multimodal transportation system throughout the community.



APPENDICES

Appendix A: Summary of Stakeholder Interviews

Appendix B: Newsletter #1

Appendix C: Public Workshop Agenda and Comment Form

Appendix D: Go Wakulla Mobile App Newspaper Article

APPENDIX



APPENDIX A

9:00 Marti Miller – State Forest Service

Jurisdiction in State Forest. Wakulla State Forest. Approx. 15-17 hundred acres.

There is a management plan. There are goals to “grow” the area. Would like to add more infrastructure. Small trailhead, parking, kiosk, no restrooms.

There is also a bicycling trail in Gadsden County – in Lake Talquin State Forest. Lines Track trail. Access off of Cooks Landing Road.

Unpaved multiuse trail in Wakulla State Forest. 4.5 miles on the northern side of 267. 1.5 mile hiking trail connected to this trail. Potential to add spurs to this trail and add mileage. There are some karst features in the area. Not fenced off, but there are natural detours away from them. Close enough for interpretive signage and information though.

There is signage and a small trailhead. Access from 267.

Potential to connect St. Marks Trail to this trail via 267.

On their website and on FWC website, the kiosk at the trail all include information about what weekends are for hunting. Hikers and bicyclists can still use the trail when there is hunting.

Every year for the next 10 years will have timber thinning, because of the amount of timber operations in the area. Could be a 50-year operation. Trying to replant over time with native trees, i.e. longleaf pine.

Hunting in the Wakulla State Forest is by drawing only. You must have a hunting permit and then apply for a quota. Wakulla tends to have the same hunters each year. One interior road only to access. Must park and walk in. Tend to use more primitive hunting i.e. bow and arrow, muzzle loaders.

In Franklin County, there has been minimal conflict between the OHV and the dog hunters.

Hunters do not want to lose any ground. Any intrusion takes away what is already limited area for hunting.

In the past five years, the National Forest has limited areas, i.e. designated OHV, hunting, etc. area.

Communication and education will be needed to get the concerns and learn how to mitigate those concerns from the hunters.

Kathy Briggs is the landscape architect and works with recreation development at the National Forest. Charley Markus is supervisor over the area. They can provide more information about how they address hunting.

In Wakulla State Forest, the hunting is only every other weekend.

State Forest has liaison meetings regularly (typically 4x per year) with representatives from various groups, including hunters.

Expressed interest in having this be a stop on the Scenic Byway.

10:00 Pat Jones – Wakulla County School Board

Crawfordville Elementary is probably best location for the improvements. US-319 is the barrier for many students though. There are several subdivisions in Walking distance of the school though.

Wakulla Middle School is another location. Jean Drive, Jane Drive roads. Small benefit because of a limited number of students (8). Also need connection to rec park, to high school, and to dollar store.

Sidewalks in 98 from Wakulla High to the rec park. 1/2 mile from the school up 98 on north side of 98. Would be a big benefit to 50-100 students. Also connections to the gas station (Kangaroo).

Medart Elementary would be too limited in number of students.

Riversink Middle is an issue b/c of 319, 267 and a limited number of students.

Riversprings Middle and Shadeville Elementary is too limited in the number of students.

Sopchoppy and Wakulla Education centers would also not benefit.

There are no school district rules against walking or bicycling to school.



APPENDIX

Connections in Crawfordville would benefit b/c of parks, community center, etc.

Pat Jones sits on the CTST board. They make facility recommendations to FDOT and CRTPA.

They do not keep a list of prioritized projects. The sidewalk on 98 is the main priority now.

Light posts would be beneficial in conjunction with sidewalks in US 319.

Improvements at intersections on 319 would be a great benefit in terms of safety and transportation.

3:00 Rusty McKeithan – Dog Hunters Association

County has voted the GF&A Trail down twice.

The other bike trails do not impact hunters, but the GF&A Trail does impact them.

There was going to be a prohibition on hunting within ½ mile on each side of the trail.

Residents of Sopchoppy were against the Trail.

There is a forest road that starts in Leon County, trailhead at GF&A, goes to the Leon Sinks. Possible Connection to Wakulla State Forest and Wakulla Springs.

Would be open to the section from Bloxham Cutoff to Forest Road 13 if it is fenced off and doesn't impact hunting. This could tie into Crawfordville.

The rail-to-trail line follows powerline easement.

Hunting season from Thanksgiving to end of January. 58 days total.

Apalachicola National Forest is largest dog hunting area in the state. Brings in a lot of people from outside of the area. 2/3 of the hunters are from outside of the area during the hunting season.

The hunting season here ends later than other places in the state.

The parks and camping areas are full during the season.

Have been fighting the paving of FH-13 for years.

4:00 Brian Roddenberry – Wakulla County Parks and Recreation Dept

Sidewalk to connect parks in downtown Crawfordville would be a good idea.

Could there be blackout dates for the GF&A Trail south of Forest Road 13 and North of Sopchoppy.

Golf Team at the High School uses the County Club, so extending the trail to the club makes sense.

Cross Country team used 375 along the side of the road. Could use the trail if long enough.

Access to the Recreation Park from US 319 in front of the library. Other access on 98.

Forest staff does a good job of keeping up the blueway sites.

Need to talk to David Moodey at the NWR.

Project Ideas from stakeholders:

Connection from St. Marks Trail to the trail in the Wakulla State Forest via SR 267.

Sidewalk Connections on Aaron Road to connect to Elementary School.

Sidewalks on Jane Drive and Jean Drive to connect neighborhood around Wakulla Middle School.

Multiuse Trail on northern side of US 98 to connect Wakulla High School to Wakulla Recreation Park and then to Wakulla Middle School.

Enhanced sidewalk to connect High School to gas station and to the multiuse trail on the northern side of 98 (project listed above).

From field visit, trail along Shadeville Hwy is not feasible.

The connection from St. Marks Trail to the Wakulla State Forest Trailhead and across to Wakulla Springs makes sense and appears to be feasible.

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Need to email the Economic Study to commissioners.

Lynn Artz:

Make sure we talk to the National Forest regarding the fence for the GF&A trail north segment.

Took Oyster Bay sewer plant offline. Ran sewer lines to the club.

Just ran sewer lines along 98. Plans to plant wildflowers along 98 from 319 to Woodville Hwy.

May be interest along Lower Bridge Road b/c of connection to Crawfordville and because of the location of Wakulla Gardens.

Problem with parking at Wakulla River launch at Shadeville Hwy and at 98.

Would it be worth including trails to Shell Point to go to the beach.

Wakulla BOCC did approve the GF&A trail to move forward.

Connection from Sopchoppy to Ochlockonee State Park.

Hugh McArthur – Landscape architect may be able to provide info.

CRTPA

GF&A Trail Corridor – Believe that the CRTPA corridor is correct versus OGT corridor files. Need to verify with OGT.

CRTPA has feasibility study followed by PD&E. Feasibility study will include pre-feasibility interviews and data collection to determine if a feasibility study would be needed. Would look at things like whether the trail would go along US 98 or use the Florida Trail. Feasibility study would look at the entire Capital to Sea Loop Trail within the CRTPA area.

Anything we can get done is better than nothing, even if we do it is segments.

Million-dollar set aside. ½ goes to regional projects. The rest is divided across the counties based

on population. Anything that connects to GF&A and St. Marks Trail could probably tap into the regional funds.

Keep the Shadeville Highway project in the plan as a Long Range Plan.

Harry Reed is interested in a drivable trail that goes north and south to be able to be used as an evacuation route.

Renaissance Planning is developing scope for Capital City to Sea Loop Trail feasibility study. Jack could talk to Whit to delay the release of the proposal until we were done with the Wakulla Bike-Ped plan to coordinate projects.

In Leon County, they are trying to link Henrietta Park, Gaines Street, up Woodward, into Campus, etc.

CRTPA should have some money that can be used for design following the completion of the Wakulla Bike-Ped Plan.

Want to connect Wakulla and Leon Counties. Tie together activity centers. Link parks, schools, and recreational opportunities.

Southern Trail Riders Association – equestrian organization. They are working with the National Forest for developing trails and training areas in the National Forest.

Having a total cost would be helpful. Developing priorities with costs would be helpful too.

Need to look at evacuation plan for Wakulla County (done by RPC) to see if there are any options for using trails and evacuation routes, with the possibility of obtaining FEMA money. Also propose emergency vehicle only routes. Look at Orange Beach Trail in Alabama, this might be an example of this type of trail.

OGT has an expedited process for obtaining ROW.

Can the utility corridor in the forest be used for a trail.

Office of Greenways and Trails

Robin confirmed that the OGT alignment is correct. May be able to pull the rail line from the



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GIS data.

The study done in the 90's showed the CR 299 route at Sopchoppy being more feasible than the rail line through Sopchoppy.

When OGT talked to the dog hunters in the past, they wanted a fence that would fence wildlife onto private property.

There are currently no projects listed that would be on the Capital to Sea Loop Trail, except the couple of hundred feet that closes the gap between the State-managed St. Marks Trail and the City of St. Marks-managed area.

FH-313 can currently be used to access where the GF&A corridor is.

Corridors added to the opportunities corridor map should occur during the update possibly occurring in 2012.

OGT has not had an open acquisition cycle in a long time. There is also a lack of Florida Forever funding. Florida Forever decides when an open cycle is held. RTP funding has been available. RTP money cannot be used for trails in the Right of Way.

Need to be careful with using RTP funds and CRTPA funds because sometimes CRTPA money can only be used for "alternative transportation" instead of recreation.

RTP money can be used for trailheads, but the money is most often put towards trails. Trailhead must be for trail (not for a ball park or similar type of recreation development.)

Paving an existing trail would not compete as well because it is an existing trail. New trails do better. Refurbishing existing trails is possible, but not a given.

RACEC communities have a different match requirement.

There is some RW missing along the GF&A trail (near FH-13 in Sopchoppy).

NSBP grant may be used if the grant is written as providing access to an existing intrinsic quality (the Forest) instead of for creating a resource.

The wide swaths for the trail recommendations allow for flexibility with future studies and

locations.

Years ago, OGT acquired the Porter Tract (off of Porter Road) to develop property in coordination with the Florida Trail. Primitive camping, etc. It is wet like much of the refuge.

RTP program opens in March typically. Application should stay the same.

OGT did appraisal work and made an offer for the corner area in Sopchoppy for a trailhead, but the offer was lower than the owner wanted.

US Forest Service

Horse trials may be an aspect to look at when formulating plans

Propose a new name and rebrand the GF&A Trail, has caused many problems in the county

Identify policies that could assist bikers and hikers such a reduced fares for, currently hiker and bikers have to pay the same amount to camp as RVs and cars

There is currently a mountain biking trail in the National Forest- begins in Medart and continues through to the other side (currently there are 9 trail heads)

Many ATV trails in national forest as well

National forest is looking to trade land in order to acquire Riversink

Look at the location of power lines, sewer pipes, gas lines for [possible location of trails

There are disjointed paths on alternating sides of 98

National forest would be able to help with parking at trail heads and would like to see informational kiosks at the community centers and around the county

Look at the possibility of doing a split plan, one for biking and one for community development, Seminole County did one

<http://www.trailtowns.org/initiatives.aspx> --- an initiative in Pennsylvania to promote trail

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systems

<http://www.arcgis.com/home/> --- GIS server that has trail locations in the area

Paul Johnson

It is important to look at the timing of the return on investments and be honest with the people in Wakulla

TCC is currently developing a business plan for an environmental institute at the current lot for the Wakulla Community Center.

Plan could include a list of heritage based stores to promote local businesses not directly related to bike/ped activities

Lower Bridge Road is a good location for bike widened shoulders or bike path, lots of existing right-of-way

- Lots of land along this corridor is owned by St. Joes, could work out a potential partnership with them in exchange for land

Tiger Hammock Rd is a good connection to Wakulla Springs

At the intersection of US 98/319 there are many churches, could be a good tie in to plans and a good source of promotion

Possible implementation of the Eco-Barn

Georgia- Wilderness Way

Would like to see the county get land on the upper St Marks river to be used as a public launch site

Wakulla River Park has very limited parking, especially if you need to park a trailer

Accessing the river at Wakulla River Park is very difficult, during low tides. County could add a step to the facility to make access easier

Adding shoulder or trail on Shadeville Highway would be beneficial, this road is frequently used to bike between launch site and store

Fixing up the ramp at the north bridge of the Wakulla river would be helpful

Some residents are having issues with people being at the North bridge launch site on the Wakulla River, but the issue is enforcement, people are doing things that should not be allowed

The Great Bike Shop is opening a location in Leon County but that will serve the St Marks Trail

Doug Alderson would be a good contact- DEP- State Paddling Trail Coordinator

Robbie- TnT Hideaway

Launching at Panacea Visitor Center is very difficult during low tide

Establishing a Wakulla paddling trail, (similar to FL circumnavigational route) would be great for the county and could promote overnight excursions

Add branches to the St Marks trail that lead to Wakulla Spring State Park, Wilderness Way, TnT Hideaway, and to the bridge over the St Marks River

Fixing launch facility at north bridge of Wakulla river would be helpful

Facility amenities could be added to many launch sites that include, bathrooms, picnic area



APPENDIX

APPENDIX B

Newsletter #1 - December 2011

Wakulla County Bicycle, Pedestrian and Blueways Master Plan



Master Plan

Wakulla County is creating a Bicycle, Pedestrian, and Blueways Master Plan and would like your input. This Master Plan aims to connect and promote a system of walking, cycling, and paddling trails within the County through various projects and policies.

This Master Plan will include all aspects involved in the process, including signage, wayfinding, and connections to counties surrounding Wakulla. This system of walking, cycling, and paddling trails will offer the County a unique opportunity to market itself as a premier ecotourism hub, and will provide residents and visitors easy access to safe recreational opportunities. This master plan will also use the natural resources of the County to improve the quality of life for residents, improve mobility, and provide opportunities for economic development.

At the completion of the Master Plan, Wakulla County will have an implementation-ready plan that will promote bicycle, pedestrian, and blueway facilities, enhance their connections and promote recreational opportunities in the County.

Project Deliverables

- Bicycle, pedestrian, and blueway facility recommendations
- Signage, marking, and wayfinding recommendations
- Policy recommendations
- Multiuse trail feasibility report
- Design guidelines
- Marketing and outreach plan
- Bicycle route map
- Implementation plan with funding strategies



74.9 % of visitors to Florida participate in nature-based activities.

-2010 Florida Visitor Study, VISIT FLORIDA



Kimley-Horn and Associates, Inc.

Over →

Public Workshop

Do you have an idea about how to improve walking, biking, and paddling around Wakulla County? We would like to hear your ideas for where sidewalks are most needed and where bike paths should be installed. Plan to attend the Public Workshop to share your ideas and prioritize projects for the Wakulla County Bicycle, Pedestrian and Blueway Facilities Master Plan. Your participation is essential to developing a plan that enhances your community!

This workshop is open to all members of the community and will provide attendees the opportunity to voice thoughts and ideas on the proposed plan. There will also be an opportunity to offer input and help prioritize the order of the proposed recommendations. The workshop will include a short presentation followed by the opportunity to ask questions and provide input.

PUBLIC WORKSHOP

Date: February 16, 2012

Time: 6:00 p.m. - 8:00 p.m.

Location: Wakulla County Senior Citizens Center
33 Michael Drive, Crawfordville, FL



Please come and provide your input!

Stay informed!

Information about the Wakulla County Bicycle and Pedestrian Master Plan will be provided through the Wakulla County Board of County Commissioners website at www.MyWakulla.com and on the Wakulla County Tourist Development Council (TDC) website at www.VisitWakulla.com.

You can also receive updates on the project by liking the Wakulla County TDC Facebook page or following the Wakulla County TDC on Twitter @VisitWakulla.



Scan this QR Code with your smart phone to access the Wakulla BOCC website



APPENDIX



APPENDIX C

COMMENT FORM

WAKULLA COUNTY BICYCLE, PEDESTRIAN, AND BLUEWAYS MASTER PLAN

PUBLIC MEETING

WAKULLA COUNTY SENIOR CITIZENS CENTER
33 MICHAEL DRIVE
CRAWFORDVILLE, FL 32327
FEBRUARY 16, 2012 6:00 P.M. – 8:00 P.M.

PUBLIC COMMENTS
(PLEASE PRINT CLEARLY)

Please provide your comments below. If more space is needed, feel free to use an additional sheet of paper. You may either place your comments in the "comment box" provided at the meeting or send them Zach DeVeau at the address listed below.

create more loop trails for bikes + coastal
padding.
create public access point at St. Marks River area
along St. Marks River - key to designating
that portion of river.
Restrooms needed along Wakulla River canals
create bicycle shuttle options w/ bike racks.
Feel free to call me for advice on paddling trails
+ loops.

(PLEASE PRINT CLEARLY)

Mr./Mrs./Ms. Doug Anderson
(Circle one) Name

Address

City, State, Zip Code

Phone Number 421-3677

Email Address
doug.anderson@dep.state.fl.us

Please return comments to:
Zach DeVeau
Kimley-Horn and Associates, Inc.
1725 Hermitage Blvd.
Tallahassee, FL 32308
Email: Zach.DeVeau@kimley-horn.com
Phone: (850) 553-3500
Fax: (850) 3090055

COMMENT FORM

WAKULLA COUNTY BICYCLE, PEDESTRIAN, AND BLUEWAYS MASTER PLAN

PUBLIC MEETING

WAKULLA COUNTY SENIOR CITIZENS CENTER
33 MICHAEL DRIVE
CRAWFORDVILLE, FL 32327
FEBRUARY 16, 2012 6:00 P.M. – 8:00 P.M.

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(PLEASE PRINT CLEARLY)

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Revise Archaeological Canoe trail on
Lower Ochlocknee River;

Wakulla Springs Road (61) corridor - Blue sign
to Wakulla Spring + Wakulla State Forest, Camp
Indian Spring

GFA connector to proposed Wakulla County
Historical Society Heritage Village Park

(PLEASE PRINT CLEARLY)

Mr./Mrs./Ms. Cal Jamison
(Circle one) Name

Address
P.O. Box 1508,ville 32327

City, State, Zip Code

Phone Number
850 509 4814

Email Address
cal.jamison@msn.com

Please return comments to:
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1725 Hermitage Blvd.
Tallahassee, FL 32308
Email: Zach.DeVeau@kimley-horn.com
Phone: (850) 553-3500
Fax: (850) 3090055



APPENDIX

COMMENT FORM

WAKULLA COUNTY BICYCLE, PEDESTRIAN, AND BLUEWAYS MASTER PLAN

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33 MICHAEL DRIVE
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* A paddling trail "the four rivers" trail will greatly benefit from installation of platforms to camp on ~ every 10 miles

* Stakeholders: add Tallahassee Bicycle Club,

* US 98 should meander away from the road

* 319, 98 and Shadleville Road are very dangerous to bicycle on

* Put GPS markers along the trail which are identified with google map Runkeeper app.

(PLEASE PRINT CLEARLY)

Mr./Mrs./Ms. Annet Forkink
(Circle one) Name

242 HUNTERS TRACE
Address
CRAWFORDVILLE FL 32327
City, State, Zip Code

Phone Number annet.forkink@gmail.com

Email Address

Please return comments to:

Zach DeVeau

Kimley-Horn and Associates, Inc.

1725 Hermitage Blvd.

Tallahassee, FL 32308

Email: Zach.DeVeau@kimley-horn.com

Phone: (850) 553-3500

Fax: (850) 3090055

COMMENT FORM

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NO 1: "4 RIVERS" PADDLING TRAIL WITH OVERNIGHT PLATFORMS (MOSTLY) OFFSHORE ON ISLANDS AND NEAR ~~TAKE~~ GOOD RESTAURANTS (SPRING CREEK) (ANGELO'S)

NO 2: MULTI-USE TRAILS FROM ST. MARKS TRAIL TO DESTINATIONS OR LOW-TRAFFIC ROADS LEADING TO DESTINATIONS. IE. TO HWY 59 & ALONG 98

Q: WHY WERE CAPITAL CITY CYCLIST & MTB ASSOCIATIONS NOT ON STAKEHOLDER LIST? THEY ARE BASED IN TLM BUT RIDE A LOT IN WAKULLA.

(PLEASE PRINT CLEARLY)

Mr./Mrs./Ms. H.W. Weijers

(Circle one) Name

242 HUNTERS TRACE

Address

CRAWFORDVILLE, FL 32327

City, State, Zip Code

850-294-9652

Phone Number

hwbweijers@gmail.com

Email Address

Please return comments to:

Zach DeVeau

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Tallahassee, FL 32308

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Phone: (850) 553-3500

Fax: (850) 3090055

APPENDIX



COMMENT FORM

WAKULLA COUNTY BICYCLE, PEDESTRIAN, AND BLUEWAYS MASTER PLAN

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O chlockone Bay boat trail needs to be given funding priority to complete.

Entire trail system needs to have a joint beautification project to encourage businesses and homeowners to clean up their properties and plant trees, shrubs, flowers etc to beautify wakulla county

(PLEASE PRINT CLEARLY)

Mr./Mrs./Ms. (Circle one) Name
Bill Anderson

Address
2481 Surf Rd

City, State, Zip Code
Panama, FL 32346

Phone Number
984 1231

Email Address
WEA222@comcast.net

Please return comments to:
Zach DeVeau
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1725 Hermitage Blvd.
Tallahassee, FL 32308
Email: Zach.DeVeau@kimley-horn.com
Phone: (850) 553-3500
Fax: (850) 3090055

COMMENT FORM

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PUBLIC COMMENTS
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Please provide your comments below. If more space is needed, feel free to use an additional sheet of paper. You may either place your comments in the “comment box” provided at the meeting or send them Zach DeVeau at the address listed below.

Please consider expanding the Master Plan to include all counties of the Big Bend Scenic Byway, specifically Franklin County. Priority # 1 = Capital City to Sea Loop Trail.

(PLEASE PRINT CLEARLY)

Mr./Mrs./Ms. (Circle one) Name

Address

City, State, Zip Code

Phone Number

Email Address

Please return comments to:
Zach DeVeau
Kimley-Horn and Associates, Inc.
1725 Hermitage Blvd.
Tallahassee, FL 32308
Email: Zach.DeVeau@kimley-horn.com
Phone: (850) 553-3500
Fax: (850) 3090055



APPENDIX

Wakulla County Bicycle, Pedestrian, and Blueways Master Plan

Public Workshop
Wakulla County Senior Citizens Center
6:00 pm – 8:00 pm

WORKSHOP AGENDA

6:00 – 6:15	Welcome and Introduction
6:15 – 6:35	Project Presentation
6:35 – 7:15	Workshop Groups
7:15 – 8:45	Group Summaries
7:45 – 8:00	Prioritization of Recommendations
8:00	Meeting Adjourns

WELCOME, PLEASE SIGN IN

Wakulla County Bicycle, Pedestrian, and Blueways Master Plan Workshop
Thursday, February 16, 2012

NAME	ADDRESS	EMAIL	PHONE	AFFILIATION
John Smith	1650 Main St. Panama, FL	J.Smith@email.com	(850) 555-5555	Citizen
Frank Van Arman	56 NE 210 Ave. Cross City, FL	Frank6540@bellsouth.net	(352) 498-1426	
Tim DORON	1911 Angels Hollow Rd	TBannon@mywakulla.com	926-0919	
Lynn Barr	CRTPA		851-6801	
TONI COURNER	Surf Rd	tonimail123@gmail.com		SV
David Elms	20 n. 71 St. Ft. Septon	Delms@mywakulla.com	445-4269	
Jessica Welch	3093 Cville Hwy	jwelch@mywakulla.com	926-0919 y. 407	
Keith PARMER	63 RIVER PLANTATION RD	kdp@earthlink.net	850 294 7168	PARMER RESEARCH LLC
Pam Portwood	1184 Dr. MLK Jr. Mem Rd	pportwood@mywakulla.com	850-544-6133	Wakulla TDC
JOEY TILLMAN	60 MACKBRY COURT, SEASIDE	BOUEFISHJOE@HOTMAIL.COM	850 566-2634	CITIZEN
Nelson Martin	60 Lizard Lane Seelye	Nelson Lizard@gmail.com	(850) 962-2200	
Charles Pulley	59 Escalier Rd Cville	cpulley62@yahoo.com	850 926 1965	
David K Butler	2856 Hwy 98 E. Carrabelle FL 32322	dkbutler@jtcare.net	850-274-3870	Carrabelle EDC SFAA Bike Initiative

WELCOME, PLEASE SIGN IN

Wakulla County Bicycle, Pedestrian, and Blueways Master Plan Workshop
Thursday, February 16, 2012

NAME	ADDRESS	EMAIL	PHONE	AFFILIATION
John Smith	1650 Main St. Panama, FL	J.Smith@email.com	(850) 555-5555	Citizen
Jerry Moore	PO Box 585	moorejerry02@gmail.com	(850) 363-5382	✓
Virginia Monroe	Panacea FL 32346	@gmail.com		✓
Brian Bradberry	79 Recreation Pk	bradberryb@mywakulla.com	850 926 5769	✓
Tim Jordan	P.O. Box 663	Tim@okreality.com	567-9296	✓
Rachel Rouse	1910 cultic rd			
Bill Anderson	2481 Surf Rd	WEA222@comcast.net	784 1231	✓
Luis Serna	3213 Proud Claret Fl	LSerna@mywakulla.com	552-5357	
Heather Corbett	3093 Crawfordville Hwy	mcorbett@mywakulla.com	926-3695	
Sheree Kruer	"	SKruer@mywakulla.com	926-6100	
LESLIE COX	P.O. Box CC Carrabelle	dan-leslie@earthlink.net		
Mike T. Seale	357 B. Ch. - C. Rd	Supchippy17@yahoo.com	824 5216	
Leah Bowman	12 Old Fort Rd St Marks	leahb55@earthlink.net	925-0670	✓

WELCOME, PLEASE SIGN IN

Wakulla County Bicycle, Pedestrian, and Blueways Master Plan Workshop
Thursday, February 16, 2012

NAME	ADDRESS	EMAIL	PHONE	AFFILIATION
John Smith	1650 Main St. Panama, FL	J.Smith@email.com	(850) 555-5555	Citizen
Shelley Swenson	84 Cedar Ave, Crawfordville, FL 32327	sswenson@ufl.edu	926-3931	UF/EFAS Extension
Kim Weigens	242 Hunters Trace	kimweigens@gmail.com		ST. RESIDENT
Walt Dickson	Panacea, FL	Pan coast 01@yahoo.com	850-139-6724	Panacea Water Dist
Jennifer Jensen		jensen@thewakullanus.net	926-7102	Wakulla News
Doug Anderson	Worwille	doug.anderson@chapman.edu	421-3387	OGT
Robert C. Bala	Crawfordville	TATHideaway@earthlink.net	926-5696	TNT Home-Improvement
JENI	"	"	"	"
Ross	Tallah	Ross.SUNBORN66@earthlink.net		CCR/CBC

WELCOME, PLEASE SIGN IN

Wakulla County Bicycle, Pedestrian, and Blueways Master Plan Workshop
Thursday, February 16, 2012

NAME	ADDRESS	EMAIL	PHONE	AFFILIATION
John Smith	1650 Main St. Panama, FL	J.Smith@email.com	(850) 555-5555	Citizen
Paul Johnson	537 Highway 90, Crawfordville, FL 32303	PaulJ4880@AOL	926-7437	Chamber
Lisa Cole	805 Chestnut Ave	Shilzed@yahoo.com	322-2333	Citizen
Lynn Artz	PO Box 937 Crawfordville, FL 32326	lartz@mywakulla.com	330-2158	County Commissioner
Chuck Hess	112 Lake Ellis	C. R. Hess@earthlink.net	570-8786	
Annet Ferkel	242 Hunters Tr	annetferkel@gmail.com	850-925-7885	
James Burnett	120136 House Rd	james-burnett@earthlink.net	850-925-6211	St. Marks NWA
Quinn Jamison	PO Box 1508 Cville	quinn.jamison@supernet.com	509-4814	Wakulla County Historical Museum
Karen Loewen	1651B N Monroe St	RememberWhere.net	273 0279	Cyclelist, Cap City, Cycles
JERRY REES				CRTPA

APPENDIX



APPENDIX D

Wakulla County announces "GoWakulla Mobile App"

Last Update: 6/08 1:51 pm

[Print Story](#) | [Share](#)

CRAWFORDVILLE, Fla. - Wakulla County is pleased to announce the GoWakulla mobile app.

The mobile app, which was developed by Kimley-Horn and Associates and Infinity Software Development, as part of the Wakulla Bicycle, Pedestrian, and Blueways Master Plan, is the first mobile app for the promotion of County-wide ecotourism developed for a local government in Florida.

The GoWakulla Mobile App is now available for download and provides users with information about bicycling, paddling, hiking, and recreational activities available in the County to include location of trailheads and access points, and directions.



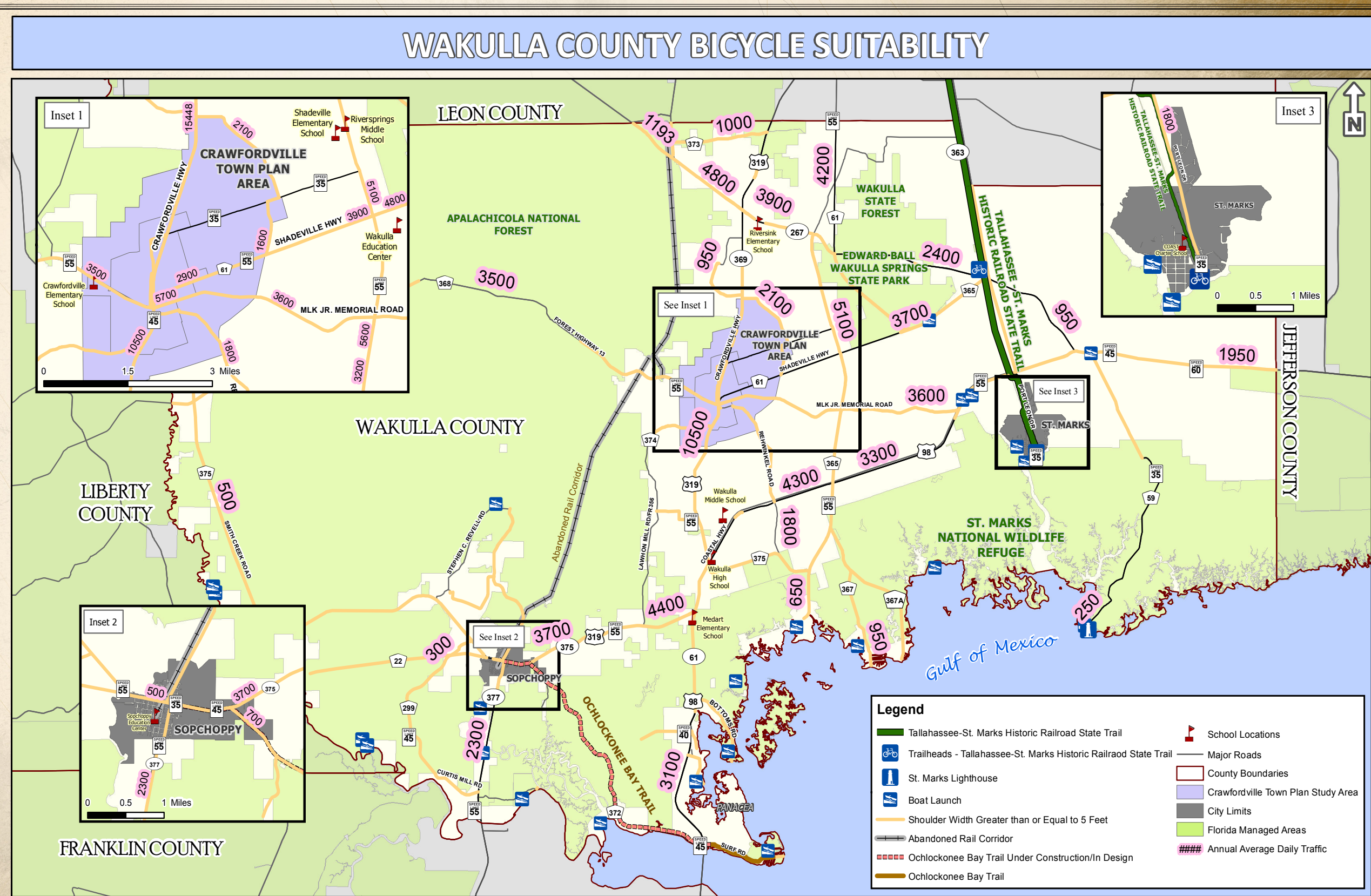
Users of the mobile app can also see photos of key destinations in the County. Additionally, the mobile app also includes information about the Big Bend National Scenic Byway. Other features include links to local events, links to local businesses via the Wakulla County Chamber of Commerce, and access to the Wakulla County Tourist Development Council's Facebook and Twitter pages.

The GoWakulla mobile app furthers the economic development and ecotourism goals of the County and I'm hopeful this will increase exposure of the entire Community," commented Commissioner Alan Brock.

The GoWakulla mobile app is currently available for Apple iOS devices, including the iPhone, iPod Touch, and iPad.

As funding becomes available, an Android-compatible version of the mobile app may be released and additional functionality may be incorporated for both the iOS and Android versions of the mobile app.

To download the GoWakulla mobile app directly from the Apple App Store, [click here](#).



0 2.5 5 Miles

Disclaimer: Data presented in this document are based on GIS data from various sources and are subject to further refinement following field reconnaissance. Kimley-Horn and Associates cannot be held responsible for inaccuracies in the data presented in this document.



WAKULLA COUNTY



Major Corridors

The bicycle suitability map indicates the suitability for bicyclists to use existing roadways in Wakulla County. Included on the map is the speed limit along the corridors, the presence of 5-foot paved shoulders, which act as undesignated bicycle lanes, and Annual Average Daily Traffic (AADT). AADT is found by dividing the total volume of vehicle traffic by 365. The following write-up describes three major corridors in Wakulla County.

US 319: US 319 through Wakulla County varies between 2 and 4 lanes, and divided and undivided. A large majority of US 319 has at least 5-foot paved shoulder, though some small segments do not. The speed limit along US 319 varies from a high of 55 to a low of 35. The peak AADT volume is 10,500.

MLK Jr. Memorial Road: MLK Jr. Memorial Road is a 2-lane undivided road that runs east from Crawfordville to US 98. The entire segment has 5-foot paved shoulders and has a AADT of 3,600.

US 98: US 98 is a 2-lane undivided highway that crosses almost the entire County. About half of the corridor has 5-foot paved shoulders while the other half does not contain shoulders. Speed limits along US 98 vary from a high of 60 to a low of 35. The highest AADT along the corridor is 8,400, but along some segments it dips to 1,000.



**Mountain Biking Opportunities
in the Wakulla State Forest**

Wear a Helmet!

If you do not already have a helmet, get one. Wear it everytime you ride. The helmets today are light, look good, and can save your life. A helmet is a bargain in injury prevention, and wearing one whenever you ride protects your brain. That's important if your head hits a hard surface like the road, the curb, or a car. A study that appeared in the New England Journal of Medicine reported that helmet usage reduces the risk of head injury by 85% and brain injury by 88%. Riders under the age of 16 are required by law to wear a helmet, but all riders are urged to do so.

Wear a helmet that fits snugly but is not tight. Make sure that it has the CPSC sticker that shows it complies with standards established by the U.S. Consumer Product Safety Commission. Your bicycle shop carries helmets in many colors and styles for both adults and children, and their assistance can be invaluable in the selection of the proper helmet. Nobody expects to have a crash. It is essential you have head protection in case you are involved in one!

Contacts

To report emergencies	911
To report non-emergencies	
Wakulla County Sheriff.....	850-745-7100
Florida Highway Patrol.....	*FHP (*347)
For additional information	
FDOT District 3 Bike-Ped Coordinator.....	850-415-9656
BikeFlorida.....	352-224-8601
CRTPA Mobility Coordinator.....	850-891-6801



**Bicyclists on the Ochlockonee
Bay Trail**



Cyclists on the St. Marks Trail



WAKULLA COUNTY

Bicycle, Pedestrian, and Blueways Master Plan

DESIGN GUIDELINES



Design Guidelines

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Design Guidelines

Standard Pedestrian, Bicycle, and Transit Design Guidelines

Introduction

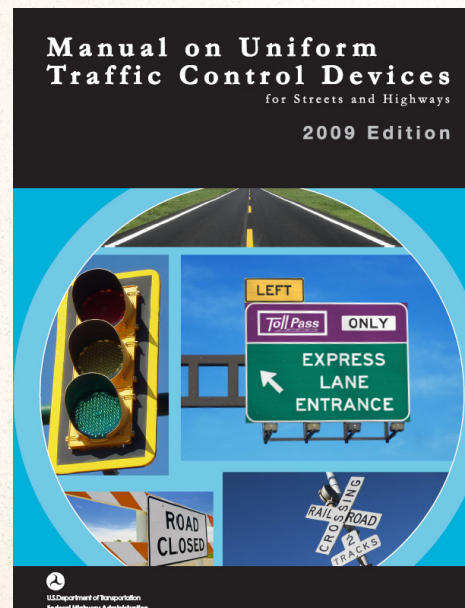
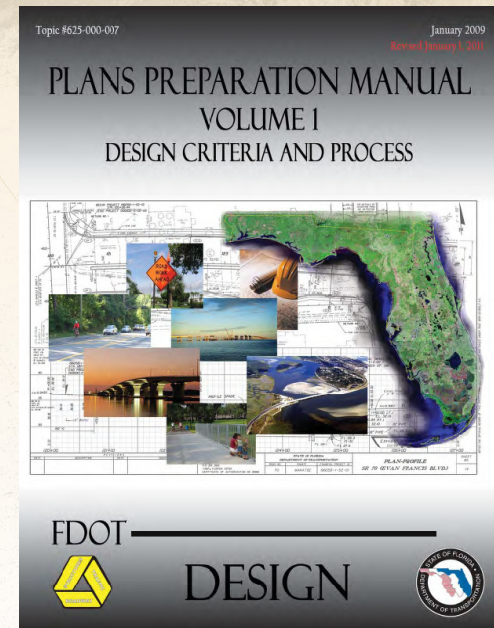
These Design Guidelines have been prepared for Wakulla County to provide guidance in the preparation of the County's multimodal facilities.

The primary sources used in these design guidelines are the *Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways* (the Florida Greenbook), the *Manual on Uniform Traffic Control Devices (MUTCD)* and the *Plans Preparations Manual (PPM)*. Other sources include the *Florida Bicycle Facilities Planning and Design Handbook*, the *Florida Pedestrian Planning and Design Handbook*, the *AASHTO Guide for Planning, Design, and Operation of Pedestrian Facilities*, and the *AASHTO Guide for the Development of Bicycle Facilities*.

MANUAL OF UNIFORM MINIMUM STANDARDS
FOR DESIGN, CONSTRUCTION AND MAINTENANCE
FOR STREETS AND HIGHWAYS
(Commonly known as the "Florida Greenbook")



State of Florida
Department of Transportation



Pedestrian Facilities

Introduction

All pedestrian facilities included in the Pedestrian Facilities Design Guidelines follow the Americans with Disabilities Act (ADA) of 1990. This act ensures that the public facilities shall be designed to accommodate those with physical disabilities. Furthermore, facilities are intended to be consistent with the ADA Public Rights-of-Way Guidelines as proposed on July 26, 2011.

The pedestrian facilities are separated into three categories within this plan that include:

- Signage
- Sidewalks
- Crosswalks

In the following sections, these three facility types will be summarized and described using various federal and state guidelines. It is important to note that this guide should only be used as a reference as different sites require different specifications. A thorough review should be completed to determine if all minimum requirements are being met for each respective project.

Signage

Description:

Pedestrian signs, as shown in **Figure 1**, are used to alert vehicles that pedestrians may be using a facility near the road, and that unexpected entries or other crossing activities may cause conflicts. Likewise, pedestrian signs are predominantly used to limit pedestrian crossings to specific locations along the roadway.

Design Guidelines:

Pedestrian signs, when used at the location of a crossing, can be supplemented with a diagonal downward pointing arrow plaque to make the location of the crossing more visible to motorists.

The minimum height of signs, measured vertically from the bottom of the sign to the sidewalk, shall be seven feet. If there is a directional sign mounted below, it shall not project more than four inches into the sidewalk.

Approximate Cost:

Cost is approximately \$300 for sign and sign structure. Additional fees may be required depending on the location of the sign.



Figure 1: Pedestrian Alert Sign

Signage and Signals

Signals

Description:

Pedestrian signals are used to alert pedestrians when to cross an intersection by displaying person/hand symbols at traffic signals. These signals usually follow a set traffic signal cycle and alert pedestrians of the designated time that is allowed to cross the road. Additional considerations will need to be taken at intersections that allow vehicles to turn right on red. The *MUTCD* should be reviewed prior to planning, and coordination with the local transportation authority should be made prior to the installation of pedestrian signals. Examples of these signals are shown in **Figure 2**.

Design Guidelines:

Pedestrian signals should be at a minimum of seven feet above the ground to limit conflicts with pedestrians. Many different factors play into signal design and no two situations are the same. When planning for this type of pedestrian feature all state and federal guidelines should be followed to make the most informed decision possible.



Figure 2: Pedestrian Signals



Pedestrian crossing signal

Sidewalks

Description:

Sidewalks are critical elements of any pedestrian transportation system within a community. They allow for pedestrian movement from one place to another and should provide direct and convenient routes. Where available, sidewalks should allow for direct access to civic buildings, schools, and parks as well as transit facilities where available and commercial areas. It is important to remember that sidewalks need to promote and enhance accessibility to business, transportation facilities, and public spaces in the most direct route possible. This can be achieved using:

- Wide sidewalks
- Minimal obstacles
- Moderate grades and cross slopes
- Firm, stable, and slip resistant surfaces
- Adequate lighting
- Clearly defined pedestrian zone

By promoting and increasing accessibility, sidewalks have the potential to stimulate economic development opportunities and strategies through the encouragement of leisure shopping and providing more activity within an area. Finally, through proper design and implementation, sidewalks can increase public safety by reducing incidents such as pedestrian collisions, injuries, and fatalities in neighborhoods or along major roadways.

Design Guidelines:

It is essential that basic parameters for sidewalk design account for the needs of all potential users. In certain areas and environments it can be difficult to design a sidewalk that accounts for the wide range of abilities among an entire population. Therefore, the specific end user group that a sidewalk is intended to be used by should be kept in mind when designing sidewalks. In almost all cases sidewalks should be developed with young children and the elderly in mind as they are the most susceptible to be affected by sidewalk design. Therefore, sidewalks should be designed to minimize potential conflicts that could be caused by interaction between vehicles and pedestrians.



Existing sidewalk in Tuscany Trace Community

Sidewalks

Sidewalk Width

Sidewalk width is one of the main determinants impacting the experience for pedestrians using a sidewalk. Narrow sidewalks can limit the number of users and force them to walk in close proximity to each other. In addition, narrow sidewalks can make pedestrians travel too close to adjacent buildings or fast moving traffic and can limit access for those utilizing wheelchairs. It is recommended that the pedestrian zone of any sidewalk be at a minimum 60 inches wide (five feet).

Wider sidewalks are recommended in areas where frequent or heavy pedestrian activity will occur. In these areas it might be more efficient and practical to implement a sidewalk corridor concept. Sidewalk corridors consist of a curb zone, planter/furniture zone, pedestrian zone, and frontage zone. These four areas are briefly described below, and can be spatially seen in **Figure 3**. When designing these corridors all zones should be considered.

- 1) **Curb Zone** – Consists of the first six inches directly adjacent to the roadway. The curb is an important part of most drainage systems and prevents automobiles from driving onto the sidewalk.
- 2) **Planter/Furniture Zone** – Located between the curb and actual pedestrian area. This area is typically used to accommodate utilities, pedestrian furniture, transit shelters, and landscaping features. It also serves as a buffer between pedestrians and provides an increased sense of safety. This zone should be at a minimum 60 inches wide.
- 3) **Pedestrian Zone** –The paved portion of the sidewalk corridor that pedestrians travel on and commonly referred to as the sidewalk. As previously noted, the paved portion should be at a minimum 60 inches wide and never less than 36 inches wide. In an area that expects heavy pedestrian traffic this zone should be increased up to 120 inches to accommodate additional users. To allow enough space for wheelchairs to pass each other, the zone should have no protruding objects, obstructions, or obstacles.
- 4) **Frontage Zone** –The space between the sidewalk and the property line. This area should be 60 inches to provide for safe access to store fronts.

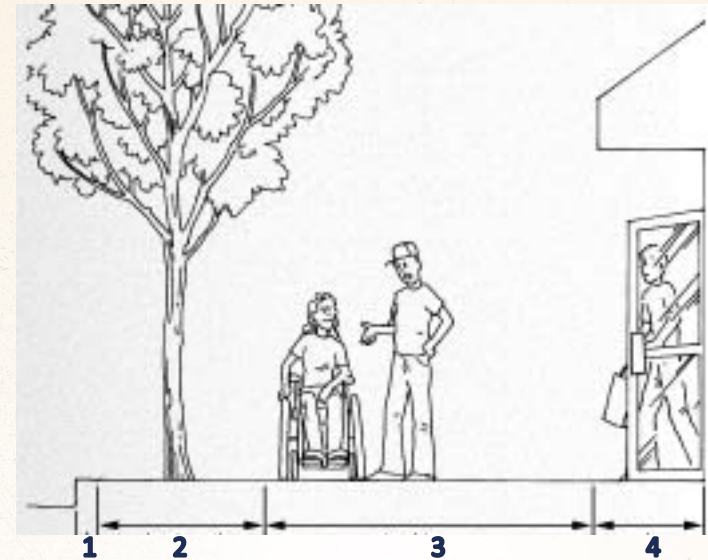


Figure 3: Typical sidewalk cross section from the Federal Highway Administration. Numbers represent the zones as listed in the text

Sidewalks

Grade

Whenever possible, grade should not exceed five percent. In some sections this may not be possible, so alternative designs should be considered. These include, providing rest areas for wheelchair users and wide sidewalk corridors. In order to assure that sidewalks drain properly, a cross slope of 1.5 to two percent is recommended. Specific consideration must be given to ensure that grade and cross slope are both constructed to the proper specifications.

Surfaces

The majority of sidewalks constructed consist of a concrete or asphalt surface. Other common materials that are used are tile, pavers, brick, or stone. Concrete and asphalt provide a high degree of firmness and stability. Under dry conditions concrete with a broom finish are sufficiently slip resistant. For areas that experience wet or icy conditions a good drainage systems that moves water off of the sidewalk, coupled with a regular maintenance program can help reduce the severity of damage. Decorative surface materials such as tile, stone, and brick improve the aesthetic quality of sidewalks by being able to be placed in decorative patterns, as seen in **Figure 4**. They also help to notify and signal to travelers that they are entering specific districts (i.e. historic) or areas of a community.

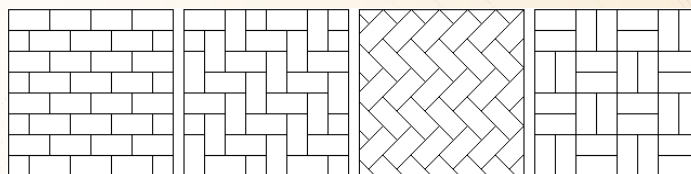


Figure 4: Decorative surface patterns

Changes in Level

The change in the vertical elevation of sidewalks, separate from the change in grade, can be caused by several factors. These include tree roots pushing up from beneath the sidewalk, heaving and settling from frost, brick surface buckling, and uneven transitions between streets, gutters, and curb ramps. **Table 3** below lists general requirements for assessments and solutions for these changes in level.

Change in Level	Solution
Up to 0.25 inches	No treatment required
0.25 to 0.5 inches	Bevel surface with maximum grade of 50%
Greater than 0.5 inches	Install ramp with maximum grade of 8.3%

Table 3: Changes in Level

There are numerous other factors that apply to site-specific design of sidewalks, these can be found in the *American Association of State Highway and Transportation Officials (AASHTO)* and the Institute of Transportation Engineers *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*. The guidelines include passing space, vertical and horizontal clearance, changes in level, grates as well as other features that may apply in some site specific locations. One very important aspect when planning sidewalks are driveway aprons (see **Figure 5**). When designing sidewalks around driveways, the location of the ramp can greatly affect the slope and grade of sections, therefore, special design considerations should be given to these areas. Driveway aprons should not extend into the clear pedestrian travel zone, where cross slopes are limited to a maximum of two percent.

Approximate Cost:

Cost varies per design and sidewalk type, but FDOT typically uses a cost of \$120,400 per mile.

Sidewalks



Sidewalk in Century Park development in Crawfordville

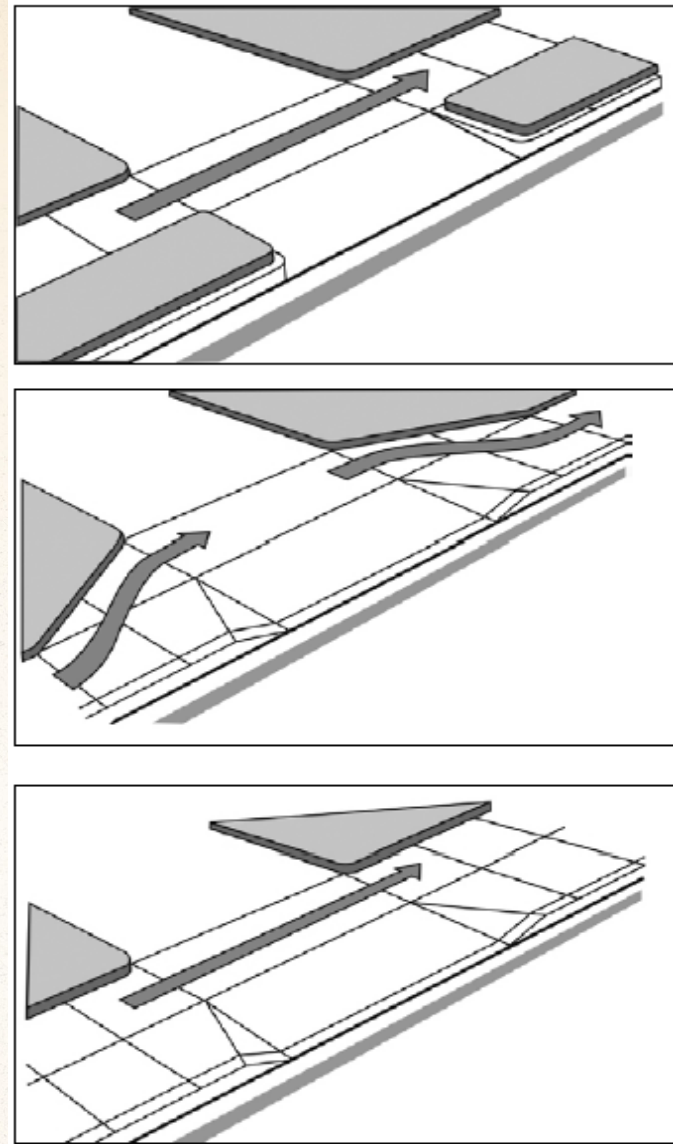


Figure 5: Examples of effective driveway apron design

Crosswalks

Description:

Crosswalk markings provide guidance for pedestrians who are crossing roadways by defining and delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops. In conjunction with signs and other measures, crosswalk markings help to alert road users of a designated pedestrian crossing point across roadways at locations that are not controlled by traffic control signals or STOP or YIELD signs. Crosswalk design can vary in nature depending on the intensity and usage of an roadway, so special considerations should be made depending on location. An example of a standard crosswalk with signage can be seen in **Figure 6**.

Guidelines:

When crosswalk lines are used, they shall consist of solid white lines that mark the crosswalk. They shall not be less than six inches or greater than 24 inches in width (MUTCD); lines must extend the full width of the pavement and the gap between transverse lines shall not be less than six feet.

Marked crosswalks should be provided at all signalized intersections, or when:

- Posted speeds are greater than 40 mph
- On a roadway with 4 or more lanes without a raised median that has an ADT of 12,000 or greater
- On a roadway with four or more lanes with a raised median that has, or is projected to have within five years an ADT of 15,000 or greater

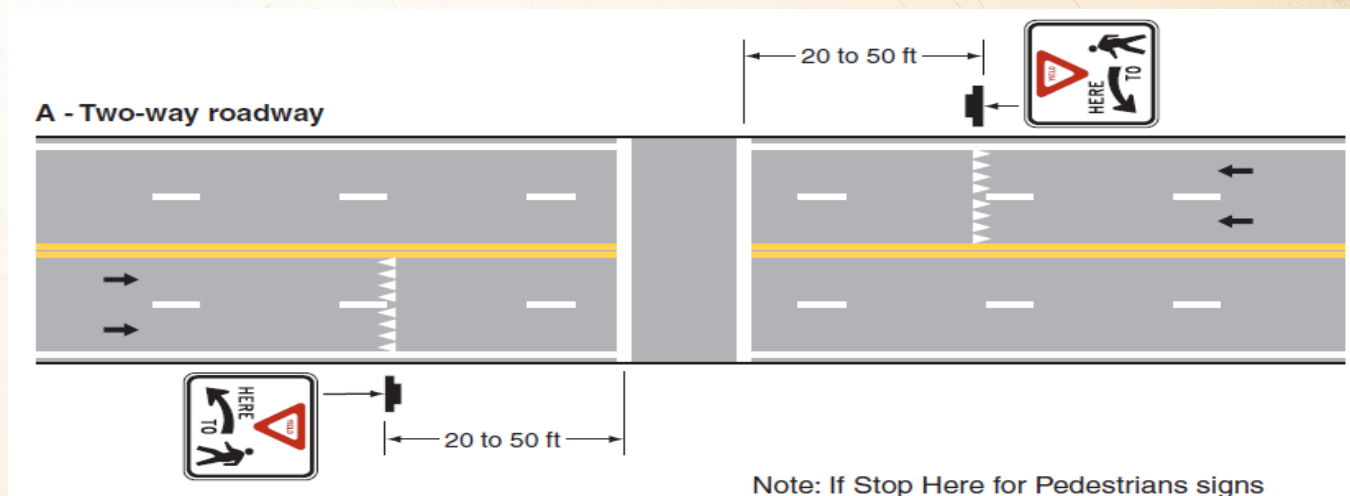


Figure 6: Crosswalk and Signage

Alternative Crosswalks

Midblock Crossings

Description:

Midblock crossings typically occur on roads that have large distances between intersections as well as high traffic volumes, high speeds, and a large amount of pedestrian activity. Midblock crossings must be well signalized to alert motorists of the possibility of having pedestrians in the area. These crossings require the use of multiple high intensity crosswalk features to ensure the safety of pedestrians. Specific design criteria for each midblock crossing will be different, as no two areas are the same. However, at all crossings, there should be ample visibility from both directions so all design features should be considered, including landscaping. At a minimum, midblock crossings should follow general crosswalk design guidelines, but should include higher intensity features, such as raised crosswalks or signal lights, to ensure the safety of users.

Possible treatments for consideration include, but are not limited to:

- Increased signage
- Curb extensions (**Figure 7**)
- Preferred crossing signal
- Pedestrian refuge (**Figure 8**)

Railroad Crossings

Description:

In areas where pedestrians or bicyclists must cross railroad tracks, special considerations must be met in order to ensure their safety. These crossings should include:

- The provision of a crossing arm that would stop vehicles, pedestrians, and bicyclists
- A rubberized material that would allow for an at-grade crossing over the tracks
- Warning signals to indicate when a train is approaching

More specific recommendations can be found in the Guidelines for Accessible Public Rights-of-Way, US Access Board.

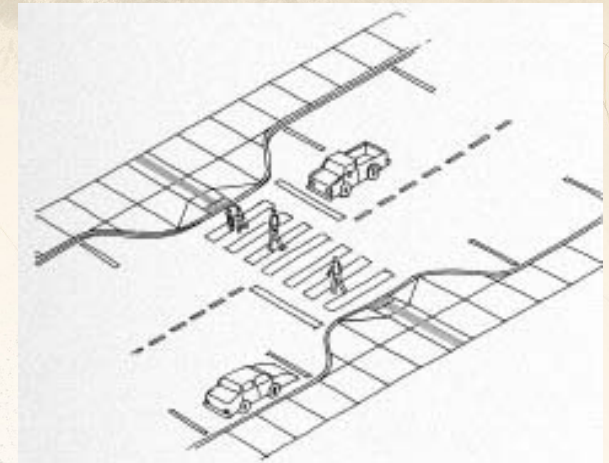


Figure 7: Midblock crossing with curb extensions

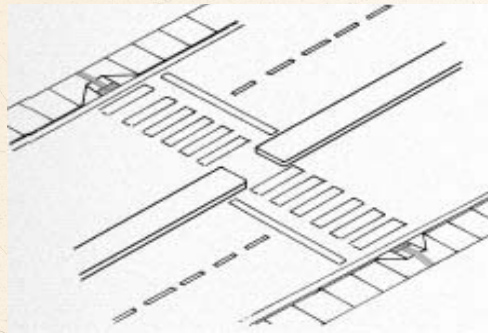


Figure 8: Midblock crossing with pedestrian refuge



Rubberized railroad crossing

Alternative Crosswalks

High Emphasis Crosswalks

Description:

High emphasis crosswalks have the ability to:

- Reduce motor vehicle speeds and create visible, prominent crossing locations for pedestrians and cyclists
- Calm traffic and increases pedestrian safety at mid-block locations and intersections

Textured pavement, such as brick or stone, can also be utilized to enhance the pedestrian environment at crossings by applying the following guidelines:

- Textured pavement must provide a non-vibratory surface for pedestrians
- The use of textures pavement reduces vehicle speeds and improves intersection safety, and clearly delineates a separate space for pedestrians and bicyclists
- Additionally, signage should be added, to indicate to vehicles that pedestrians have the right of way at the intersection

High emphasis crosswalks should be implemented in areas that have high levels of both automobile and pedestrian activity, such as around schools and commercial districts.

Design Guidelines:

Use of stop bars, yield markings, and signs should be used at all crosswalks; other treatments could include flashing beacons, pedestrian signals, and curb extensions and textured pavement crossing may also be used.

Approximate Cost:

Costs vary depending on location and features installed, but base FDOT price is \$92,000.



High emphasis crosswalk with separated brick paver crossing

Paved Shoulders

Description:

A paved shoulder is a five foot section of the roadway that is outside of the vehicular travel lane but that does not have special markings or signing for preferential use by bicyclists. Paved shoulders are typically found on rural roads.

Paved shoulders can reduce conflicts between bicyclists and automobiles by allowing the cyclists to ride outside the vehicle lane. Paved shoulders also preserve the integrity of the pavement by minimizing the number of cars that run off the edge of the road.

According to the *Florida Bicycle Facilities Planning and Design Handbook* and *AASHTO*, obstructions and other impediments on existing highways should be considered for their affect on bicycling and the use of paved shoulders. Impediments not receptive to bicycles include:

- Unsafe grates
- Debris
- Rumble strips
- Narrow lanes
- Driveways
- Rough pavement
- High-speed or high-volume traffic
- High truck volume
- Curbside auto parking
- Lighting
- Railroad crossing flanges
- Bridge expansion joints
- Metal grate bridge decks
- Traffic signals that are not responsive to bicycles
- Painted hatching



Paved shoulder

Design Guidelines:

The width of paved shoulders vary by location and projected use. The minimum width should be five feet, however existing four foot shoulders may be retained.

Additional standards can be found in the *Plans Preparation Manual (PPM)* Chapter 8, FDOT, and the *Florida Bicycle Facilities Planning and Design Handbook*, Section 2, FDOT.

Approximate Cost:

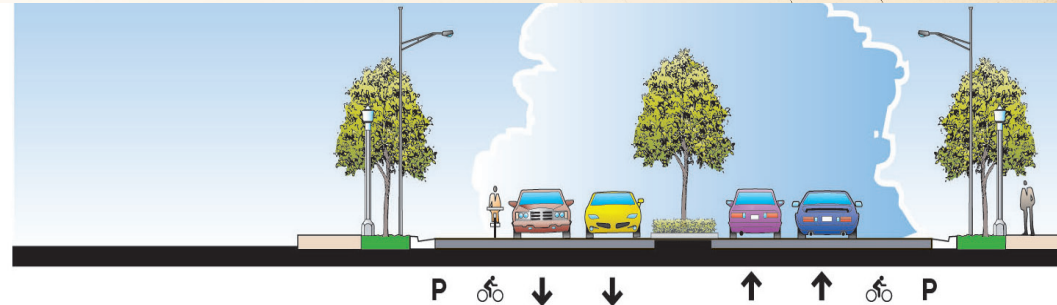
Standard FDOT cost for widening an existing two lane arterial to a four lane arterial with five foot paved shoulders is \$2,030,000 per mile.

Designated Bicycle Lanes

Description:

Designated bicycle lanes provide a means of creating a bicycle transportation system congruent with the respective vehicular network in a given area. Bicycle lanes are an on-road facility type. They provide delineated road-space specifically allotted for bicycle use adjacent to the existing roadway, between the right most outside road boundary line and the gutter pan seam. Given adequate planning and right-of-way, it is possible to provide bike lanes on every roadway in a given network.

Bike lanes work because they establish order, in terms of location, direction, separation, and predictability, for the sharing of highways/roadways between cyclists and motorists. Bike lanes are also an effective means of avoiding sidewalk conflicts between cyclists and pedestrians providing cyclists with a convenient place to ride separated from pedestrian traffic activities. An example of a typical road section with bike lanes is shown in **Figure 9**.



Context Zone	Right of Way	Sidewalk	Furnish.	Parking	Bike Lane	Travel Lane	Travel Lane	Median	Travel Lane	Travel Lane	Bike Lane	Parking	Furnish.	Sidewalk
Suburban/Urban Commercial	115.5'-130'	8'	8'	7' ⁽¹⁾ -8'	5'-6'	11'-12'	11'-12'	15.5'-22'	11'-12'	11'-12'	5'-6'	7' ⁽¹⁾ -8'	8'	8'
Suburban/Urban Residential	91.5' - 120'	6'	8'	7' Opt.	4'-6' ⁽²⁾	10'-11'	10'-11'	15.5'-22'	10'-11'	10'-11'	4'-6' ⁽²⁾	7' Opt.	8'	6'
Urban Center	119.5'-130'	10'	8'	7' ⁽¹⁾ -8'	5'-6'	11'	11'	15.5'-22'	11'	11'	5'-6'	7' ⁽¹⁾ -8'	8'	10'
Constrained Right of Way	68'	5'	4'	Opt.	Opt.	10'	10'	10'	10'	10'	Opt.	Opt.	4'	5'

Opt. = Optional Element

⁽¹⁾ = Minimum 7' assumes gutter pan

⁽²⁾ = 5' required when adjacent to on-street parking or between outer lane and turn lane

Figure 9: Typical Cross Section



Bicycle lane with encroaching motorist

Designated Bicycle Lanes

Design Guidelines:

Design Standards from MUTCD

- Pavement markings designate the portion of the roadway for preferential use by bicyclists. Markings inform all road users of the restricted nature of the bicycle lane.
- **Standard:** Longitudinal pavement markings shall be used to define bicycle lanes.
- **Guidance:** If used, bicycle lane word, symbol, and/or arrow markings should be placed at the beginning of a bicycle lane and at periodic intervals along the bicycle lane based upon engineering judgment.

If there is on-street parking adjacent to the bicycle lane then the lane must be at a minimum five feet wide. If there is no adjacent on-street parking then the lane should have a minimum width of four feet to the curb face. The lane should be designated by a six inch wide, white line to separate it from traffic. Typical bicycle lane markings are shown in **Figure 10**.

Bicycle slots must be used when there are right hand turn lanes present. Under these conditions the bike lane moves in between the right hand turn lane and the through traffic lane to minimize conflict. Use of signage helps alert motorists that bicyclists may be merging with traffic. A example of a bike slot facility can be seen in **Figure 11**.

Additional standards can be found in the *MUTCD*, as well as in the *Florida Greenbook* and *PPM*.



- Optional, but recommended in Florida

Approximate Cost:

Cost varies depending on design and street type, however, standard FDOT cost to add two lanes to an existing two lane arterial is \$3,800,000 per mile.

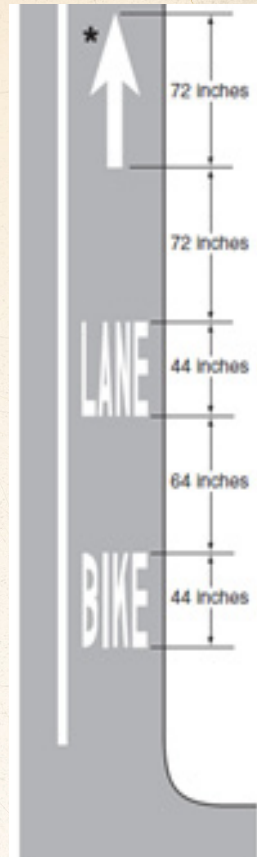


Figure 10: Typical Bicycle Lane Markings

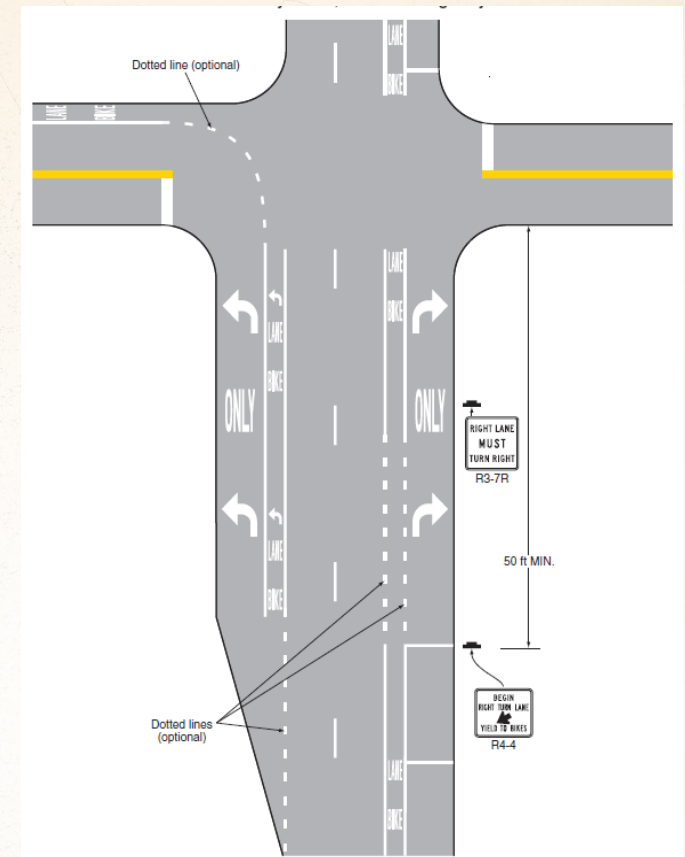


Figure 11: Bicycle slot at an intersection

Shared Lane Markings

Description:

Shared lane markings, also referred to as sharrows, consist of a bicycle and double chevron pavement marking as seen in the image below. They are used to alert bicyclists and drivers that a lane is open to cyclists, even if no bicycle lanes or paved shoulders exist.

According to the *Plans Preparation Manual (PPM)*, shared lane markings can only be implemented if the speed limit on a road is less than 35 miles per hour.

Shared lane markings can be used instead of bike lanes on roads with adjacent on-street parking. The sharrow allows the bicyclist to occupy the lane, avoiding placing bicyclists in the “door zone.” The door zone is the area where cars that are parallel parking on the streets would open their doors. This area presents a real danger to bicyclists as they often not aware when a door is about to be open. Shared lane markings do not require an increase in lane width, or right-of-way width.

Design Guidelines:

Additional standards can be found in the *Manual on Uniform Traffic Control Devices (MUTCD)* and *PPM*.

Approximate Cost:

Cost varies depending on design and street type.



Chevron pavement marking on a shared lane road



Shared lane marking and signage

Wide Curb Lanes

Description:

Similar to a shared lane marking (sharrow), wide curb lanes (WCL) are lanes that can comfortably be shared by bicyclists and cars. When located on roads without curbs, they are called wide outside lanes. WCLs do not meet FDOT requirements for bicycle facilities on new construction or reconstruction. WCL's should only be used on local neighborhood roads with speed limits 30 mph or less and should not be used for roads such as minor or major arterials or highways.

Design Guidelines:

The preferred minimum width of wide curb lanes, which allows for the safe passing of cyclists by motorists within a single lane, is 14 feet. If space is sufficient for a 14 foot wide curb lane, but traffic volume and speeds are low, the roadway may be split and striped to indicate a three foot shoulder and an 11 foot lane. When 16 or more feet are allowed for a wide curb lane the lane should be striped to delineate a 12 foot lane and a shoulder of four feet or more.

Approximate Cost:

Cost varies depending on design and street type.



Wide Curb Lanes

Bicycle Boxes

Description:

Bicycle boxes are used at intersections with a high volume of bicyclists. Bicyclists pass through an intersection first during the green signal phase rather than queuing behind motor vehicles. This also assists bicyclists to make left turns at signalized intersections.

This can also reduce right-turn conflicts between bicyclists and motorists at intersections by increasing bicyclist visibility to drivers and providing a space for bicyclists to wait at signalized intersections.

Motorists are alerted by the bike box at the intersection shown in the image to the right

Bicycle box facilities have not yet been adopted by the FHWA, but some jurisdictions have implemented them in areas that have a lot of bicycle traffic.

Design Guidelines:

There is not yet a standard design for bicycle boxes, but they should be implemented in a way that allows for a bicycle to easily position itself in front of stopped traffic.

Approximate Cost:

Cost varies depending on design and street type.



Bicycle box in
Portland Oregon

Bicycle Boulevards

Description:

On bicycle boulevards, bicycles have priority along the street. The street itself will still provide vehicular access and travel. The use of signs will provide awareness to the fact that the road is a bicycle boulevard, and through other aesthetic choices, the look and feel of the street will be enhanced.

Design Guidelines:

Primary characteristics of a bicycle boulevard are:

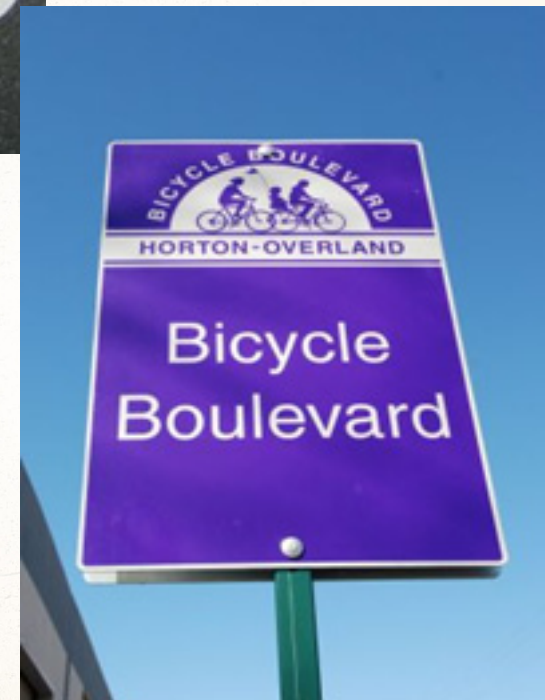
- Low vehicle volumes (no more than 4,000/day)
- Low vehicle speeds (Less than 25 mph)
- Logical, direct, and continuous routes that are well marked and signed (usually run parallel to main arterials to make convenient for commuting)
- Provide convenient access to desired destinations (provide bicycle connectivity even if road does continue through)
- Minimal bicyclist delay (provide cyclists with exclusive movement through signalized intersections)
- Comfortable safe crossings for cyclists at intersections (provide facilities for midblock crossings, as well as traffic calming facilities)

Approximate Cost:

Cost varies depending on design and street type.



Pavement marking
on a bicycle boulevard



A city specific bicycle boulevard
sign

Bicycle Parking

Description:

Adequate, safe, and easy to use bicycle parking facilities are essential to a successful bicycle network. Good parking facilities serve as an effective tool to encourage ridership. Sufficient bicycle parking facilities will prevent cyclists from locking their bikes to objects or facilities not intended for that purpose. This practice may cause damage to the object or bicycle, or may disrupt the flow of pedestrian or vehicular traffic.

Bicycle parking should also be planned in conjunction with other user amenities, such as benches, trash receptacles, recycling containers, etc.

Design Guidelines:

Parking facilities should be located near any resting or recreational areas along bicycle routes and shared use paths. They should be provided at popular trip origination and destination places to deter theft, and minimize damage. Bicycle parking facilities should also be located where bicycles will not be damaged or cause damage to motor vehicles. Bicycle parking facilities should be located where additional racks can be readily added as needed.

Bicycle parking facilities should be designed according to their use. Long term and short term parking structures should have different attributes depending on the needs of users.

Long Term Structures:

- Are intended for extended storage of bicycles
- Should provide a high degree of security
- Should provide protection from weather
- Should not cause damage to bicycles
- Should be easy to use, with as few moving parts as possible, or with instructions for use, if necessary
- Should accommodate all types of bicycles, including tricycles and those with trailers
- Typical long term bicycle facilities are cages, lockers, or rooms in buildings

Short Term Structures:

- Are intended for short term parking
- Should not cause damage to bicycles
- Should be located in highly visible places to encourage use, and discourage theft and vandalism
- Should be located proximal to common destination and origination places for cyclists
- Should accommodate high security locks and those that secure the frame and both wheels
- Should accommodate all types of bicycles, including tricycles and those with trailers

Approximate Cost:

Cost varies depending on design and street type.

Bicycle Parking



Post and loop bicycle racks with city branding



Upside-down "U" bicycle rack with A-Bar



Long term bicycle storage

Shared Use Paths

Description:

Shared use paths provide convenient transportation for multiple users and user groups. They are intended for the preferential treatment of non-motorized travel, including but not limited to, cyclists; joggers; in-line or roller skaters; wheelchair users (motorized and non-motorized); and pedestrians with baby-strollers, small children, or dogs. These facilities are bidirectional pathways separated from road right-of-way which provides a facility for non-automobile commuting as well as recreation opportunities.

Shared use connect destinations that may have been inaccessible for bicycle via the road network.

As stated in the *Florida Bicycle Facilities Planning and Design Handbook* (April 2000): "Shared use paths should be thought of as extensions of the highway system that are intended for the exclusive or preferential use of bicycles and pedestrians in much the same way as freeways are intended for the exclusive or preferential use of motor vehicles."

Design Guidelines:

A recommended width of 10 to 12 feet allows for movement in two directions as well as the occasional maintenance vehicle. In some cases, where appropriate, shared use paths may be as narrow as eight feet. In order for an eight foot lane to be feasible, the path must have a low number of riders and there must be enough space to allow for passing in some areas. Shared use paths should be constructed out of asphalt in order to provide a smooth, durable riding surface for all users. To allow for proper drainage, the sides of shared use paths should be graded as suggested by the Federal Highway Administration, **Figure 12**.

According to the *PPMs* shared use paths adjacent to a roadway may be considered if the following conditions are met:

- The path will be separated from the roadway.
- There will be few access points or roadways crossing the path.
- There will be adequate access to local streets and other facilities along the path.
- There is a commitment to provide path continuity with other bikeways throughout the corridor.

Approximate Cost:

Typical costs range from \$250,000 to \$350,000 per mile.

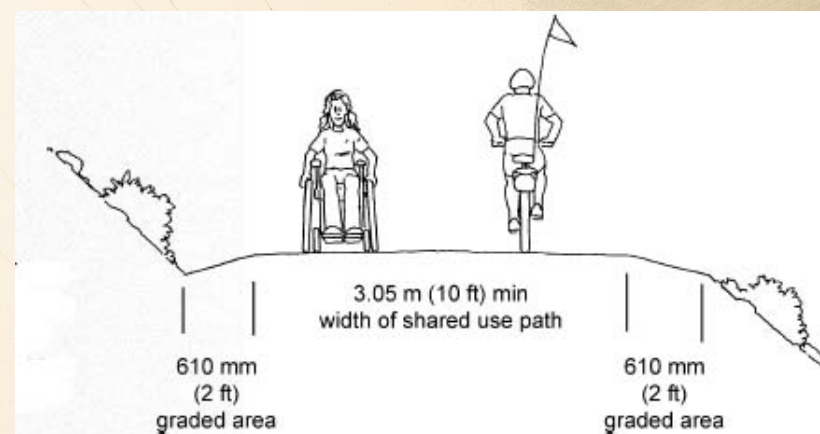


Figure 12: Typical section of shared use path

Shared Use Paths



Segment of the Tallahassee to St. Marks Historic Railroad State Trail

Shared Use Path Maintenance

Description:

Shared use paths require maintenance to sustain convenient passage for pedestrians, bicyclists and other non-motorized users. Because these facilities are typically located outside of the road right-of-way, a separate maintenance program is often needed that addresses these facilities.

Design Guidelines:

Sample maintenance procedures and programs to ensure consistently clean trails may include the following:

Trail Inspection: This is integral to all trail maintenance operations. Inspections should occur on a regularly scheduled basis, the frequency of which will depend on the amount of trail use, location, age and type of construction.

Trail Sweeping: This is one of the most important aspects of maintaining trail safety. The type of sweeping depends on the trail design and location. Sweeping should be performed on a regular schedule.

Trash Removal: Trash removal from all corridors is important from both a safety and aesthetic view, and includes removing ground debris and emptying ground containers.

Vegetation Pruning: This should be performed for the safety of trail users. Pruning will be performed to established specifications on a scheduled and as-needed basis, the frequency of which will be very low.

Mowing of Vegetation: Vegetation along trail corridors should be mowed on a regularly-scheduled basis only where mowing is not performed by other agencies or entities. Edging of vegetation should also be done to protect the edge of pavement.

Scheduling of All Maintenance Tasks: Inspections, maintenance and repair of trail-related concerns should be regularly scheduled. Inspection and repair priorities should be dictated by trail use, location and design.

Approximate Cost:

Cost varies depending on length and size of facility.

Median Refuges

Description:

Median refuges (pedestrian refuges) facilitate pedestrian and/or bicycle crossing of multiple lane or high volume arterials by providing a space in the center of the roadway where bicyclists and pedestrians can wait for gaps in traffic when crossing wide roadways. The use of a refuge allows a bicyclist or pedestrian to safely cross while focusing on one direction of traffic. Left turn movements are restricted and consequently reduces the number of potential conflict points between motor vehicles and bicyclists. Median refuges should be, at a minimum, six feet wide for pedestrian crossings, and ten feet for bicycle crossings.

Design Guidelines:

Ideal places for median refuges include:

- Complex or irregularly shaped intersections
- When a crossing is 60 feet or more
- Wide, four lane streets, with high speeds and traffic volumes
- Where children and elderly cross regularly
- Intersections with significant numbers of pedestrians
- Intersections with insufficient green time to cross

Approximate Cost:

Cost varies depending on design and street type.



Pedestrians crossing road with a median refuge and brick crosswalk

Wayfinding Signage

Description:

Wayfinding is the process of directing pedestrians, bicyclists and vehicles to their final destination; informing them as to their current location; and a means to convey information to the public. This information may also include distance information for vehicles, bicyclists, and pedestrians.

Wayfinding signs should only be used on a localized level in close proximity to the destination and should only be used when there is no conflict with higher priority signs.

Standardizing wayfinding signs is encouraged as this makes them easier for travelers to see and understand them.

Design Guidelines:

According to the MUTCD wayfinding signs should:

- Be located away from intersections where high priority traffic control devices are present,
- Be facing away from the street and toward the sidewalk, and
- Be out of the line of sight from vehicular signs, and should not be retroreflective

Approximate Cost:

\$300 for sign and structure



A city branded wayfinding sign from Inverness, Florida

Traffic Calming

Description:

Vehicular traffic traveling at higher speeds can be intimidating to pedestrians and cyclists. The quality of a safe and enjoyable multimodal environment is greater if the vehicular traffic is perceived as non-threatening. Measures must be taken to control and calm vehicular traffic in areas with significant pedestrian and bicyclist activity. However, these treatments should not create hazardous conditions for cyclists.

On-street parking is the best form of traffic calming. Bulb-outs, as seen in **Figure 13**, are a curb extension or a traffic calming measure intended to slow the speed of traffic and increase awareness to the driver. This increases pedestrian safety at intersections and helps to reduce sight distance concerns associated with vehicles parking too close to an intersection.

Street trees, when implemented on both sides of the street, create a sense of enclosure that discourage speeding. Implementing street trees as a traffic calming mechanism also provide a more aesthetically pleasing place for pedestrians to walk by providing shade as well as a visual buffer from the road. A diagram of street trees along a residential road can be seen in **Figure 14**.

Traffic calming can consist of a number of horizontal and/or vertical roadway treatments that include, but are not limited to:

- On-street parking
- Raised intersections
- Raised crosswalks
- Speed tables
- Mini-circles
- Speed cushions

Approximate Cost:

Cost varies depending on treatment (\$2,000 to \$20,000)



Speed cushions

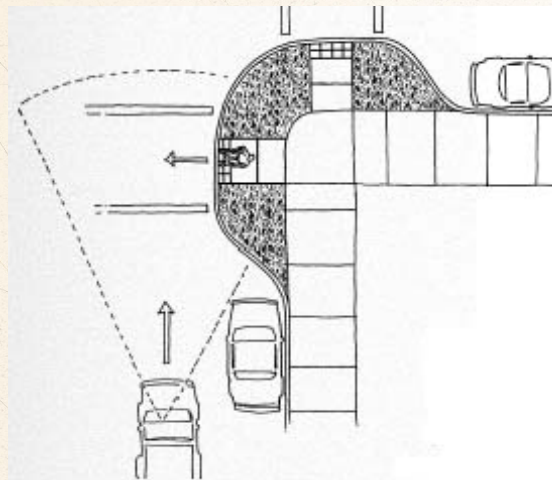


Figure 13: Road section with bulb-out to enhance visibility of pedestrians

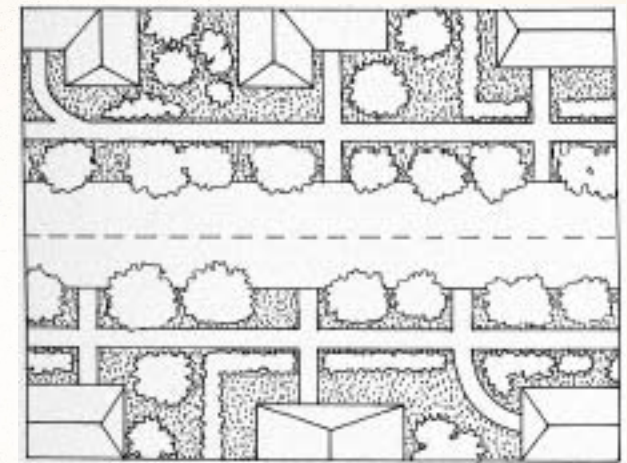


Figure 14: Street trees along a residential road

Transit Stop Design

Description:

A transit stop is the location at which a rider will wait to board a bus. The bus stop boarding area, also known as a waiting area, is the area at a transit stop provided for riders and may contain a bench and/or a shelter along with other infrastructure and amenities. Infrastructure, such as trash receptacles, informational kiosks, or bicycle parking, can also be located in the waiting area.

The waiting area size is dependent on:

- Length and width of shelters and benches,
- Clearance requirements for street furniture,
- Location of wheelchair lift extension,
- Length of the bus,
- Setback requirements,
- Available right-of-way.

Design Guidelines:

Given the varying size and door placement of a transit fleet, a standard ten-foot depth by thirty-foot length waiting area is recommended for each transit stop.

The designated waiting area of a transit stop is usually separated from the sidewalk to preserve general pedestrian flow. It is generally recommended that 5-feet of clearance be preserved on sidewalks to reduce potential pedestrian conflicts and limit congestion during boarding. The pad can be located on either side of the sidewalk, depending on available right-of-way space, setback requirements, utility poles, or buildings.

ADA mobility guidelines should be followed when street furniture is included in a waiting area. A waiting pad should accommodate a 5-foot (measured parallel to the street) by 8-foot (measured from the back face of the curb) wheelchair lift clear zone (or landing pad) that is free of all street furniture and overhangs. The paved ADA compliant wheelchair lift clear zone is required in all waiting areas where shelters are installed, and requires the maximum slope of two percent in any direction.

Waiting areas may be defined with a change in pavement material such as brick pavers, and additional space may be provided at the waiting area to install a bench or shelter depending on need and available space. Landscaping may also be included in the transit stop design to provide shade for waiting riders.

Transit Stop Design

Bicycle storage facilities, such as bike racks, may be provided at transit stops for the convenience of bicyclists using transit. Designated storage facilities discourage bicycle riders from improperly locking bikes onto the transit facilities or on an adjacent property. Proper storage of bicycles can reduce the amount of visual clutter at a transit stop by confining bikes to one area while also increasing safety. Recommendations regarding bicycle storage include:

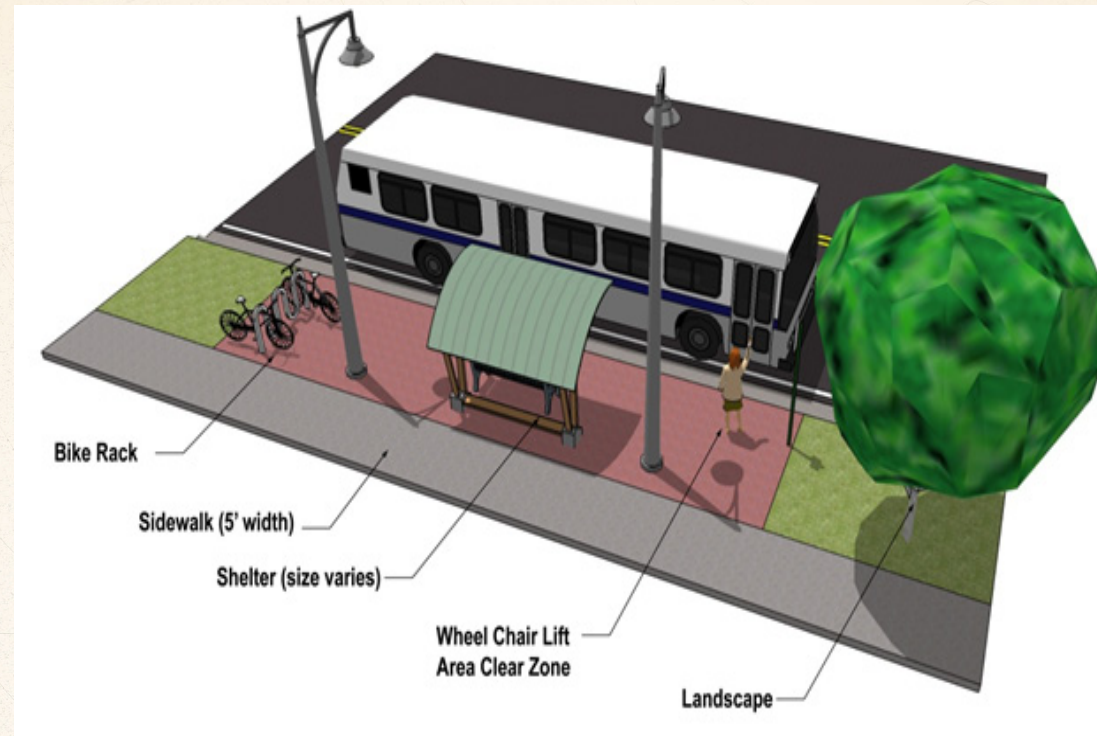
- Paved access to the transit stop and constructing the waiting area with non-slip concrete or asphalt.
- Durable, vandal-resistant, low maintenance and remaining structurally sound.
- Design of the storage facility shall minimize protrusions or appendages that may snag, tear, or catch clothing or pose a safety hazard.
- Locate the storage area away from other pedestrian or rider activities to improve safety and reduce congestion.
- Full compliance with the Federal Americans With Disabilities Act.
- Bike storage facility (or bicycle rack) foundation base shall be on a reinforced concrete slab at least four inches thick extending four-inches beyond any vertical rail "foot-print".
- The height of the bicycle rack shall not exceed 48 inches above the finished surface.
- A trash receptacle although not required is suggested.

Additional physical location criteria include:

- Minimal walking distance from the storage facility to the transit stop.
- Located on the periphery of the waiting area.
- Do not locate the storage area where views into the area are restricted by the shelter, landscaping, or existing site elements, such as walls.
- Coordinate the location of the storage area with existing on-site lighting

Approximate Cost:

Cost varies depending on design and type.



Ideal transit stop design

Transit Stop Design

Bicycles on Buses

Description:

Bikes-on-Buses is a program that allows bicyclists to bring their bicycles with them while riding mass transit/buses. Each bus in this program is equipped with a front mounted bike rack capable of carrying a minimum of two bicycles. The rack should accommodate all bicycles, from child-sized sixteen-inch wheels to heavily laden commuter bikes (excluding tandems and recumbents). All bikes fit into the rack in exactly the same manner.

Design Guidelines:

A typical bike-rack dimension for two bicycles (length x width) are 66-inches x 27-inches. In the stored position, the rack folds against the front of the bus. In either position visibility and mechanical operations of the bus are not impaired. In the extended position, the turning radius of the vehicle is extended another three feet.

Approximate Cost:

Cost varies depending on features and type.



Bus equipped with bicycle storage

Arterial Safety

Where feasible, arterial roads should incorporate the design guideline elements described in this document, include the following:

- Sheltered bus stops
- Implement mid-block crossings where applicable and feasible
- Designated bicycle lanes (4 - 5 feet)
- Hatched buffer between bicycle lanes and traffic in high traffic areas, where feasible and appropriate
- Lighting at night so pedestrians can be more visible
- In commercial strip areas implement 6 - 10 foot sidewalks with landscaped buffers



Mid-block Crossing



Sheltered Bus Stop



Designated bicycle lane
with hatched buffer

Unimproved Trails

Nature Trails

Summary Description:

Unimproved or nature trails are typically unpaved facilities to allow for a more enjoyable natural surface. These are most commonly used for recreational purposes. Typical uses include hiking, off-road cycling and walking. Trails enhance quality of life in a community or region and enhances eco-tourism opportunities.

Design Guidelines

When designing trails four main ideas should be followed

- Safety- separate trail from vehicles, allow for minimal crossings, design for visibility
- Connectivity- connections make longer trips possible, and provide links to other bicycle/pedestrian facilities
- Context- Trail should be designed with the opportunities, constraints, and surroundings of the area in mind
- Diversity- Should be designed to provide access and facilities for all ages and abilities

Approximate Cost:

- 3 to 4-foot natural surface trails: \$8,000 to \$14,000 per mile
- 10-foot crushed aggregate (4-inch depth) trail: \$35,000 to \$50,000 per mile
- 5-foot Trail with Grade Separation from Off Highway Vehicle Road: \$40,000 to \$60,000 per mile



Unimproved Trails

Trail Amenities

Amenities for Trailheads and Rest Areas

The following features and standards should be used for the location and installation of the rest areas. Features and amenities to be included at these locations are:

- ☐ Sheltered seating area
- ☐ Landscaping
- ☐ Trash Receptacle

Sheltered Seating Area

The sheltered seating area consists of an 8" thick concrete slab located adjacent to the trail. The dimensions of the concrete slab should be at minimum 12'x12'. A covered bench seating area should be located on the concrete slab with a minimum 2' clear zone from the front edge of the bench to the edge of the trail. A sample of the shelter with attached bench is shown below along with the vendor information and price.

Mini Shelter –Model # LW-G12-2P-04-B

Base Price: \$3,840

Shelter covers a 12'x12' area.

The eve height is a minimum of 7'6". The beams are made primarily of laminated southern pine.

Benches shall be 3" x 10", #1 grade CCA 0.4 pcf treated SYP. Field drilling of holes may be required. All hardware (carriage bolts) shall be included.

30-Year Shingle Roofing - Fiberglass shingles shall be 30-year warranty, class "A" fire rated, over 15# felt underlayment. Roofing nails shall be 1¼"galvanized. Drip edge shall be included for application continuously along perimeter. The shingle package may be provided by the owner or contractor.

Source: RCP Shelters, Inc. Bench shown in picture is removable.



Landscaping

Landscaping trees used around the rest area should be either Shumard Oak or Sycamore.



Trash Receptacle

A trash receptacle should be placed to the right or the left of the concrete slab near the sheltered seating area. The trash receptacle should not block access between the bench and the trail. A sample of the trash receptacle is shown below along with the vendor information and price.

Waste Container –Model # TF1015 Base Price: \$280

Size: 20" x 20" x 43"

Unit Weight: 280 lbs.

Unit Capacity: 30 gallon capacity,
(24 gallon with optional liner)

Reinforcing: Steel reinforced

Material: Concrete



Blueway Facilities

Blueway Launch Facilities

Summary Description:

The Florida Fish and Wildlife Conservation Commission has developed guidelines for developing launches for non-motorized boats. These launches are designed to minimize opportunities for tipping or damaging boats.

Design Guidelines:

Launch facilities should be:

- Accessible
- Best-suited for the specific location
- Cost-effective
- Durable
- Environmentally-Friendly

Approximate Cost:

- Synthetic stabilization matting - \$3,600
- Wooden dry slat - \$5,400
- Synthetic turf - \$2,880
- Natural loading area with stabilized rock base and clean, screened sand - \$3,000



Wakulla River Launch Site

Blueway Facilities

Choose existing natural sites if available and appropriate



Robinson Preserve in Manatee
County



Kayak Amelia

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Blueway Facilities

Airboats use these wooden slats to 'dry launch' from a trailer but they are also utilized by paddlers to decrease hull damage from the concrete surface. Modify existing launch structures by adding wooden or PVC slats to make a launch NMB-friendly.



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Blueway Facilities



The Great Calusa Blueway is using remnants of synthetic turf left over from installation in a stadium to surface these launches. They have installed it in an area with mucky soil by using pressure treated wood at both ends and 30" galvanized spikes spaced ~3' apart to hold it in place. This is inexpensive, not slippery, and is very popular with users. It will require cleaning with a pressure washer annually if in a sunny location and 3-4 times a year if sited in shady conditions.



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Blueway Facilities



Synthetic industrial matting is used to stabilize surface on this launch along the Suwannee River. It can also be used to stabilize banks with a 2-4% slope and allows vegetation to grow through matting. It is anchored with 18-24" stainless steel pins and requires little maintenance. This launch is submerged frequently and has survived several flood events with no problems.



10/13/2010 Version 1

WAKULLA COUNTY **Bicycle, Pedestrian, and Blueways** **Master Plan**



Kimley-Horn
and Associates, Inc.