#### **RESOLUTION NO. 4762-11**

#### ADOPTING THE 2011 BICYCLE AND PEDESTRIAN PLAN

WHEREAS, the U. S. Census has shown that the City of Foley has grown substantially over the last half century and other modes of transportation (walking, bicycling and mass transit) have taken a back seat to the needs of Foley's citizens, and

WHEREAS, it is important to provide Foley's citizens and visitors alternative modes of transportation routes for work and for leisure, and

WHEREAS, an adopted bicycle and pedestrian plan is essential for grant application purposes to carry out these plans, and

WHEREAS, the plan prepared by Volkert on October 10, 2011 suggests various forms of non-motorized transportation that can be implemented such as pedestrian facilities, bicycle facilities and shared use facilities, and

WHEREAS, these forms of non-motorized transportation may be implemented as the need increases and as the budget allows.

NOW THEREFORE BE IT RESOLVED that the City Council of the City of Foley, Alabama, as follows:

SECTION 1: Adopts the draft 2011 Bicycle and Pedestrian Plan dated October 10, 2011 submitted by Volkert, and is made a permanent part of this resolution upon its adoption.

SECTION 2: This Resolution shall become effective immediately upon its adoption as required by law.

PASSED, ADOPTED AND APPROVED THIS 19th day of December, 2011.

Vickey Southern

City Clerk

John E. Koniar, Mayor

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# Bicycle & Pedestrian Plan



2011



Prepared by: VOLKERT

Draft October 10, 2011



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# I. Purpose

The purpose of the Bicycle and Pedestrian Plan is to provide a framework for developing and implementing bicycle and pedestrian transportation in the City of Foley ("The City"). The Bicycle and Pedestrian Plan identifies and prioritizes the facilities that are needed to provide alternative means of transportation to the residents and guests of Foley. This plan will also provide the City with a strategic plan of implementation that will complete the transportation network providing non-motorized transportation options within the City and connectivity to surrounding communities. All new roadway improvement, land development, and redevelopment projects are encouraged to follow the recommendations of the Plan, in addition to requirements set forth by other federal, state, and local regulations.

# II. Introduction

Bicycling and walking are integral components of an efficient transportation network. Appropriate bicycle and pedestrian accommodations provide the public, including the disabled community, with access to the transportation network, connectivity with other modes of transportation and independent mobility regardless of age, physical constraint, or income. Building effective "complete streets" with bicycle and pedestrian accommodations enhances quality of life and health, strengthens communities, increases safety for all modes of transportation, reduces congestion, offers recreational opportunities, and benefits the environment by reducing vehicular trips and oil dependency. As automobile use has

increased over the last half century, other modes of transportation (walking, bicycling, and mass transit) have often taken a backseat to the needs of motorists. Like many other communities, Foley shares this history.

As most commercial and residential growth occurs along heavily traveled streets, it is increasingly important to provide bicycle and pedestrian facilities to minimize car trips. Traffic volumes have steadily increased as a result of growth in the Foley area, but many motorists could easily become bicyclists and



Figure 1 Unsafe Pedestrian Crossing in Foley

pedestrians for nearby trips if the infrastructure was developed to support them.

The increased vehicular traffic within the City has created three primary constraints for safe non-motorized transportation within the City.

- 1. US Highway 98 and State Highway 59 intersect in the center of Foley dividing the community into four quadrants with very limited non-motorized connectivity between the quadrants. Currently safe non-motorized access across these major arterial streets only exists within the Historic Business District.
- 2. Limited alternative means of transportation options available for the residents of Foley. Like many other cities in the United States, transportation improvement projects that have been accomplished have focused on resolving vehicle oriented problems while not evaluating or improving the streets performance for bicyclist and pedestrians.
- Non-motorized connectivity between Foley and the south Baldwin County region does not currently exist. The south Baldwin County region consists of five adjacent municipalities that are within 5 miles of the corporate limits of Foley. The close proximity of the adjacent

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municipalities creates a unique opportunity to provide non-motorized connectivity between cities and the beaches of south Baldwin County.

During the past 10 years, The City has taken a proactive approach to implement bicycle and pedestrian facilities to meet the needs of the residents of the community. The City has implemented approximately 11.63 miles of bicycle and pedestrian facilities to date through multiple capital improvement projects that have been funded by a combination of City budget appropriations, Community Development Block Grants (CDBG), Rails to Trails Grants, and Transportation Enhancement Grants. Furthermore, to ensure that future development provides adequate pedestrian facilities The City adopted the Manual for Design and Construction Standards in 2007 which requires all new developments to provide a minimum of 5' wide sidewalks along newly platted streets.



Figure 2 City of Foley Rose Trail

In 2011, the Department of Public Works and the Department of Community Development began consulting with Volkert, Inc. to develop a long range strategic Transportation Improvement Plan (TIP) to provide safe and convenient non-motorized transportation alternatives for the citizens of Foley. An ad hoc committee of City staff members was created to assist in the development of the TIP. The committee developed public input surveys that were distributed to the businesses and citizens of Foley to solicit input from the community that was utilized in the development of this TIP.

In October 2011, a Public Input Meeting was held during the regularly scheduled Planning Commission Meeting to solicit public comments on the first draft of the Bicycle & Pedestrian Plan. The comment period will remain open through the end of 2011. A final draft of the plan will be made available in January 2012 and a comment period opened prior to City Council adopting the plan which is tentatively scheduled for the City Council meeting on January 17, 2012.

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# **III. Goals, Objectives & Strategies**

A set of goals, objectives, and strategies were developed to provide the framework for the Bicycle and Pedestrian Plan. This framework is outlined below:

Goal 1. To develop and maintain "complete streets" which includes a safe and convenient pedestrian and bicycle network that operates safely within the overall transportation system.

Objective 1.1 Develop and improve the City's bicycle and pedestrian transportation system.

- Strategy 1.1.1. Adopt, implement, and maintain the City's Bicycle & Pedestrian Plan for bicycle and pedestrian improvements.
- Strategy 1.1.2. Complete the 5 year infrastructure project goals identified in the bicycle and pedestrian priorities list within the next 5 years.
- Strategy 1.1.3. Coordinate bicycle and pedestrian facility improvements with the City's Comprehensive Plan, Design & Construction Standards, and Subdivision & Zoning Regulations.
- Strategy 1.1.4. Secure sidewalk and shared use path improvements, easements, and on-site bicycle parking and storage consistent with the Bicycle and Pedestrian Plan through the development review process.
- Strategy 1.1.5. Coordinate bicycle and pedestrian facility improvements with Baldwin County, the Alabama Department of Transportation (ALDOT), the Baldwin County Trail Blazers, Smart Coast, and the adjacent cities of Gulf Shores, Orange Beach, Elberta, Summerdale, and Magnolia Springs.
- Strategy 1.1.6. Collaborate with City departments, agencies, and citizen organizations to identify grant opportunities and submit applications to fund improvement projects.
- Objective 1.2. Develop a bicycle and pedestrian network that is convenient and comfortable to encourage citizens to bike and walk more frequently.
  - Strategy 1.2.1. Develop bicycle and pedestrian linkages between neighborhoods, shopping centers, recreation facilities, and education centers.
  - Strategy 1.2.2. Provide safe and convenient pedestrian and bicycle connectivity between the four quadrants of the City through pedestrian overpasses and signalized pedestrian crosswalks.
  - Strategy 1.2.3. Appropriate public funding annually to support bicycle and pedestrian capital improvement projects and long-term maintenance activities.

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- Strategy 1.2.4. Install way-finding and route signs and provide maps and internetbased information to guide users through the City's pedestrian and bicycle systems.
- Strategy 1.2.5. Ensure that sidewalks, walkways, and shared use paths are furnished, where needed and appropriate, with lighting, seating, landscaping, street trees, trash receptacles, bike racks, handicap access, etc.
- Goal 2. To provide education and encouragement to citizens to promote safe walking and bicycling as a regular or primary form of transportation.
  - Objective 2.1. Promote and encourage bicycling and walking as healthy, safe and sustainable forms of transportation.
    - Strategy 2.1.2. Collaborate with local organizations and agencies to promote International Walk to School Week/Day, Cyclist & Pedestrian Awareness Week, and National Bike to Work Month/Week/Day.
  - Objective 2.2. Educate citizens on bicycle and pedestrian laws, etiquette, and safe practices.
    - Strategy 2.2.1. Promote transportation safety campaigns created by federal, state, and/or local agencies.
    - Strategy 2.2.2. Provide literature and education to citizens about bicycle road rules, safety guidelines.
    - Strategy 2.2.3. Encourage bicyclists and pedestrians to follow safety guidelines as recommended by transportation and enforcement agencies, and biking and walking advocacy groups.
  - Objective 2.3. To recognize the efforts of the City, local businesses, and local organizations for their efforts to promote bicycling and walking in the City.

Strategy 2.3.1. The City should apply for and receive a Bicycle Friendly Community designation from the League of American Bicyclists by 2017.

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# **IV. Facilities**

The City strives to design and operate "complete streets" to enable safe access for all users. Pedestrians, bicyclists, and motorists of all ages and abilities must be able to safely move along and across a complete street. Each complete street is unique, but some common facilities in addition to the roadway may include:

- sidewalks,
- bike lanes,
- frequent crossing opportunities,
- median islands,
- traffic calming,
- accessible pedestrian signals, and
- curb extensions.

A complete street must also balance safety and convenience for everyone using the road. Complete streets provide a variety of transportation opportunities for citizens to travel between many locations such as their home, neighborhoods, city parks, city schools, work places, and shopping destinations.

Facilities must also be designed and constructed to meet different physical and site characteristics and must consider multiple user types and comfort levels. Much information and guidelines on the design specifications for bicycle and pedestrian facilities to components of a complete street system are available. Specific bicycle and pedestrian facility design is determined by federal, state and local standards, most of which are based on design and construction standards set by the American Association of State Highway and Transportation Officials (AASHTO) and the Manual on Uniform Traffic Control Devices (MUTCD). A list of references can be found in Section XI. References.

This Plan recommends considering bicyclists and pedestrians as a factor in planning, design, construction, and maintenance of all roadway projects and when reconstructing or reconfiguring a roadway or right-of-way, to strive to maintain or improve existing bicycle and pedestrian non-motorized facilities.

## A. Bicycle Facilities

Due to the increased awareness of bicycling issues and the proactive approach that regional organizations, such as the Trail Blazers, Smart Cost, Baldwin County, and adjacent municipalities, the City strives to include bicycle facilities in the City's transportation network. The increased emphasis on providing safe and convenient bicycle facilities have caused the City to include appropriate facilities in recent roadway and capital improvement projects such as the construction of the Rose Trail and the Glen Lakes bike path.

As described in the AAHSTO Guide for the Development of Bicycle Facilities ("AASHTO Bicycle Guide"), selection of bicycle facility type is dependent on many factors, including the ability of users, specific corridor conditions, and facility cost. Bicycles are legally classified as vehicles and can be ridden on all roads in the City. Currently, there are approximately 1.19 miles of bicycle facilities within the City.

Bicycle facility designs in the City should follow guidelines as described in the AASHTO Bicycle Guide and MUTCD. Additionally, future commercial, office, and multi-family developments should be required to provide adequate bicycle parking facilities (i.e. bike racks). Bicycle parking facilities required by City

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ordinance, construction and design standards, or racks installed on any City owned properties should follow the "Bicycle Parking Guidelines: A set of recommendations from the Association of Pedestrian and Bicycle Professionals."

Following are descriptions of different types of bicycle facilities:

- Shared Roadways (No Bikeway Designation). These are streets in which no bicycle facility markings or signs will be installed. In some instances, an existing street may be fully adequate for efficient bicycle travel; signing and striping may be unnecessary (e.g. local residential streets and some collectors that have low volumes and speeds). In other cases, some streets and highways may be unsuitable for bicycle travel at present, and it would be inappropriate to encourage bicycle travel by designating the routes as bikeways. Finally, some routes may not be considered high bicycle demand corridors, and it would be inappropriate to designate them as bikeways, regardless of roadway conditions.
- Bike Lanes. Bike lanes are intended to delineate the right-of-way assigned to bicyclists and motorists and to provide for more predictable movements by each. Bike lanes in the City are established following the AASHTO Bicycle Guide's recommendation of minimum 4-ft. wide lanes as shown in Figure 3. Bike lanes should also have appropriate pavement markings and signage along streets. Bike lanes help to increase the total capacities of highways carrying mixed bicycle and motor vehicle traffic. Where there is adequate street width, bike lanes greater than 4-ft wide is encouraged.



**Figure 3 Bike Lane** 

As shown in Appendix XII.A Bicycle Facilities Map, bike lanes are planned for low speed collector streets where sidewalks exist such as East Azalea Ave., East Michigan Ave., and South Cedar Street. Bike lanes are also included in the "complete street" designation that is described in more detail below. In some instances bike lanes are proposed for streets that do not, nor are proposed to have, sidewalk facilities, such as Doc McDuffie Road. Bike lanes are proposed for these streets to provide bicycle connectivity to other bicycle facilities.

When a street is scheduled for repaving (every 10 to 15 years) opportunities to widen the shoulders or to modify line painting to reduce vehicular lane width to accommodate bicycle lanes may be possible. Although these opportunities exist for some roadways, other roadways will have significant challenges with drainage swales along the roadway that may prevent relatively low cost shoulder widening. Some streets may also face challenges at intersections as pavement width must be utilized for left and/or right vehicular turn lanes thus resulting in abrupt discontinuation of bike lanes forcing bicyclists and motorists to share the same space. To the greatest extent possible, bike lanes should be included in future street resurfacing projects for streets that are designated for bicycle lanes in Appendix XII.A.



Figure 4 Helmeted Bicyclist Symbol as Shown in the MUTCD.

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Bike lanes in the City shall be marked with the Helmeted Bicyclist Symbol as shown in the MUTCD.

 Complete Streets. The complete street designation within this plan identifies streets that currently do not have bicycle facilities or sidewalks but have been identified as streets with high pedestrian and bicycle demand. Generally the proposed complete streets are low speed collector streets that provide connectivity between residential areas of the City and the destination areas such as the Historic Business District, commercial districts, employment centers, parks, schools, and civic buildings.



Complete streets are made up of bicycle lanes as well as sidewalks on each side of the street as shown in Figure 5. Compete streets provide both bicycle and

**Figure 5 Complete Street** 

pedestrian connectivity while separating each use thus creating safe non-motorized connectivity for all users.

Locations for complete streets are shown listed in Section VIII. Recommended Priorities and shown in Appendix XII.A Bicycle Facilities Map.

 Bike Paths. Bike paths are a complementary system of off-road transportation routes for bicyclist and serve as a necessary extension of the roadway network. Bike paths provide bicycle connectivity along high-speed, high-capacity roadways in which it is un-safe to include on-street facilities such as bike lanes. Bike paths connect the adjacent communities and outlying neighborhoods of the City and the transportation network within the City core. Typically, bike lanes are proposed to be incorporated along the exterior of the Corporate Limits and along arterial connections to the north, south, east, and west.

Bike paths, as shown in Figure 6, are 8' wide asphalt paths that are generally located along the edge of the right-of-way and separated from the vehicular lanes to the greatest extent possible. Pedestrian demand in the locations that are proposed is very low. Therefore, bike paths are not intended to provide pedestrian connectivity.

Locations for bike paths are shown listed in Section VIII. Recommended Priorities and shown in Appendix XII.A Bicycle Facilities Map.



Figure 6 Bike Path

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 Bicycle Route Signage. A city-wide bicycle and pedestrian signage plan should be developed for specific routes between multiple destinations, including proposed bicycle by-ways. The bicycle and pedestrian signage plan should follow AASHTO's Bicycle Guide for route signage, which does not suggest numbered



routes, but encourages the use of directional signage with a description of frequented destinations. The AASHTO Bicycle Guide signs offer more flexibility as

multiple routes may converge on one street and provide more helpful information to bicyclists while riding.

Bicycle destination signage should be coordinated with a City wayfinding plan to avoid duplication and street sign clutter. Key destinations in Foley are listed in Table 1. Suggested Destinations.

#### Table 1. Suggested Destinations

City Hall/Library	Historic Business District	Î
Tanger Outlet Mall	 Heritage Park	-
Foley Sports Complex	Roberts Park	
Max Griffin Park	Rose Trail	-
Beulah Heights Park	Graham Creek Nature Preserve	
Aaronville Park	 Foley Elementary/Middle School	
Foley Intermediate School	Foley High School	j
Snook Family VNACA		

Snook Family YMCA

#### 1. Guidelines for Bicycles on Sidewalks

Although bicycles are allowed to ride on sidewalks unless otherwise posted, bicyclists should use additional caution when riding on a sidewalk. Generally, designing sidewalks for bicycle travel is not recommended, even if the sidewalks are wider, for the following reasons:

- Motorists do not expect to see bicyclists traveling on sidewalks and may pull out of intersections or driveways and collide with a bicycle unexpectedly.
- The potential for conflicts between bicyclists and pedestrians greatly increases with shared use.
- Pedestrian movements are often unpredictable for an approaching bicyclist from behind, and pedestrians cannot always predict the direction an oncoming bicyclist will take.
- Sidewalks are usually two-way facilities and bicyclists are encouraged to travel one way, with the flow of traffic.
- Sight distances are more limited at driveway crossings.
- There may be limited sight distance and clearances due to signs, utilities, landscaping, fencing, or other obstacles beside or protruding into the sidewalk.

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2. Bicycle Parking Facilities ("Bike Racks") Bike racks should be required to be installed at new developments with 15 or greater car parking spaces at a rate of one bicycle space per 25 car parking spaces, with a minimum of 4 bicycle spaces. It is recommended that this requirement be included in the City's Manual for Design & Construction Standards. Rack design and layout shall be as recommended in the "Bicycle Parking Guidelines: A set of recommendations from the Association of Pedestrian and Bicycle Professionals." Existing developments, including City



Figure 9 Bike Parking Facility

facilities, are encouraged to provide bicycle parking when possible.

#### **B. Pedestrian Facilities**

Though the Department of Public Works presently maintains approximately 35 miles of sidewalk, opportunities for pedestrian traffic throughout the City still remains limited. Since 2007, all new developments have been required to construct sidewalks within each development. Unfortunately, due to the lack of pedestrian facilities along existing City streets, the new developments are isolated and lack connectivity to the destination areas within the City. Construction of new sidewalks enhances the pedestrian environment and makes walking a viable form of transportation. Additionally, a completed pedestrian network promotes walking thus improving the overall community health.

Components of good pedestrian facilities include:

Sidewalks and Walkways. Sidewalks and walkways serve as the skeleton by which all other pedestrian components are accessed. Sidewalks are the actual space that pedestrians use to move from one location to another. Sidewalks should be constructed according to widths designated in of this Plan, and City Manual for Construction and Design Standards, AASHTO guides, and ADA guidelines. These guidelines and standards should also be followed when constructing all sidewalk elements, including curb ramps and street crossings. Beginning in 2007, the City's Manual for Construction and Design Standards requires that sidewalks be constructed, at a minimum width of 5', on both sides of all new public streets and along the street frontage of all developing and redeveloped properties. The Recommended Priorities List illustrates the priority of constructing sidewalks within existing public street right-of-ways in developed areas to expand the network of sidewalks and to connect more people to more destinations.

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Road TypeMajor ArterialMinor ArterialCollectorLocalWidth of Roadway:4-5 Lanes3-4 Lanes2-3 Lanes20-30/ ±/-	
Width of Roadway 4-5 Lanes 3-4 Lanes 2-3 Lanes 20-30' +/-	
Sidewalk Widths 5 ft. 5 ft. 5 ft. 5 ft.	gine e tribati
Historic Business	ЪЩ.
District 10-15 ft. 10-15 ft. Varies	
As shown in As shown in	389,0395,199
Location Both Sides Both Sides Appendix XII.B Appendix XII.B	
Buffer Strip	

Width\* 5.ft. 5 ft. 2-5 ft. 2 ft. \* Buffer strip between the sidewalk and roadway provides separation between the pedestrian and vehicular traffic making walking more comfortable. Also, in situations where mailboxes or other obstructions are present along the roadway, a buffer strip provides a space outside of the sidewalk. Exceptions to this requirement may be made in cases where existing utilities or topography challenges exist and must be approved by the City Engineer or their designee.

Construction of sidewalks in already developed neighborhoods and streets have greater challenges, including right-of-way, utilities, and structures that may limit the possibility of maintaining the desired/recommended sidewalk widths and designs described above. The location of proposed sidewalks, as shown in Appendix XII.B Pedestrian Facilities Map, evaluated these challenges for each street and limited the proposed sidewalks to feasible locations. However, modifications to utilities, drainage, and existing site features will likely be required along some streets.

 Pedestrian Crossings. At both signalized and unsignalized intersections, there is an implied and legal crosswalk for pedestrians at each leg of the intersection from one corner to the other, regardless to whether the crosswalk is painted. The only time this is not true is when there is a clear sign prohibiting pedestrians from crossing one corner to another.

As pedestrian facilities are constructed, painted crosswalks should be added to each leg of the intersection. Crosswalk markings in the City shall follow MUTCD standards, shown in Figure 10.

Painted mid-block crosswalks are discouraged from use in the City as at-grade mid-block crossings do not provide safe crossing conditions. Providing markings at mid-block crossing locations gives pedestrians a false sense of security. There is no guarantee that drivers are aware of the potential pedestrian crossing or if they will exercise any caution regarding the potential crossing. However, conditions such as traffic volumes, speed, pedestrian volume, location, distance to nearest

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Figure 10 Crosswalk Markings



Figure 11 Raised Pedestrian Crossing

crosswalk, on-street parking, street lighting, and others may justify the use of mid-block crossings. It is recommended that mid-block crossings, and any other resignated pedestrian crossing at an area that does not stop vehicular traffic, utilize raiser pedestrian crosswalks as shown in Figure 11.

 Pedestrian Signals. Electronic signals are primariY utilized for the purpose of warning or permitting safe crossing for pedestrians. These electronic devices, controlled through a number of manual or timed formats, are employed primarily at longer crossing distances or higher volume roads. At multiple lane crossings, pedestrian signals can also be combined with pedestrian refuge islands or right-turn slip-lanes.

Pedestrian signals in the City are all actuated, meaning

that a pedestrian must press a push button to activate a pedestrian signal sequence. Pedestrian signals in the City are typically concurrent, meaning motorists may



Figure 12 Pedestrian Signal

turn left or right across pedestrians' paths after yielding to pedestrians. In this scenario, pedestrians usually have more crossing opportunities and have less time to wait for a signal. In high pedestrian volume locations, such as downtown, fixed-time pedestrian signals, that do not require pedestrians to push a button, may be more appropriate.

The following are the intersections that are recommended for pedestrian signals within the City. The proposed pedestrian signals should be constructed concurrently with the bicycle and pedestrian facilities that will utilize the signals to safely cross the arterial streets.

- South McKenzie St & Myrtle Ave.
- South McKenzie St & Azalea Ave.
- West Laurel Ave. & Alston St.
- West Laurel Ave. & Pine St.
- South McKenzie St. & Michigan Ave.
- East Laurel Ave. & Poplar St.
- South McKenzie St. & County Road 20
- West Michigan Ave. & South Hickory St.
- North McKenzie St. & Fern Ave.
- North McKenzie St. & Berry Ave.
- North McKenzie St. & Peachtree Ave.
- South McKenzie St. & Pride Drive
- Pedestrian Overpass. Due to the heavy traffic congestion along State Highway 59 (McKenzie St.) two pedestrian overpasses are recommended to provide safe pedestrian and bicycle connectivity between the east and west side of the City through the Historic Business District. State Highway 59 is a 5 lane arterial highway approximately 70 ft wide as it bisects the Historic Business District and does not provide median refuge areas for pedestrians. Even with the addition of pedestrian signals, safe surface level crossings will be a challenge due to the high traffic volumes and the number of streets that access this highway. In addition, currently there

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are no signalized intersections north of Laurel Ave within the Historic Business District which further restricts the possibility of adding additional surface crossings in the northern portion of the Historic Business District. Pedestrian overpasses will provide safe connectivity to all residents including those with disabilities.

- *Right-Turn-On-Red Restrictions.* While the law requires motorists to come to a full stop and yield to cross-street traffic and pedestrians prior to turning right on red, many motorists do not fully comply with the regulations, especially at intersections with wide turning radii. Motorists are often so intent on looking for traffic approaching on their left that they may not be alert to pedestrians approaching on their right. Additionally, motorists usually pull up into the crosswalk to wait for a gap in traffic, blocking pedestrian crossing movements. Prohibiting turning right on red may be considered when there are high pedestrian volumes or when there is a proven problem with motorists conflicting with pedestrians. At some intersections, restrictions may only be needed during certain times of the day. A sign indicating these times may be used.
- Curb Extensions. Curb extensions are physical extensions of a sidewalk or island that increase visibility of pedestrians for motorists and it shortens the pedestrian crossing distance. Curb extensions, through their visual nature, also serve to slow motorist speeds thus presenting an additional safety feature for pedestrians. Curb extensions are appropriate at crossing locations along areas with on-street parking. They can also include visual and physical amenities such as trees or small plants. Curb extensions should be incorporated in areas with on-street parking and high pedestrian and vehicular activity such as the Historic Business District.
- Right-Turn Slip-Lane. At many arterial street intersections, pedestrians have difficulty crossing due to right-turn vehicular movements and wide crossing distances. Well-designed right-turn slip lanes provide pedestrian crossing islands within the intersection and a right-turn lane that is designed to optimize the rightturning motorist's view of the pedestrian and vehicles to his or her left. The triangular corner island should have a "tail" pointing to approaching traffic. Pedestrians are able to cross the right-turn lane and wait on the crossing island for their walk signal. An



Figure 14 Right-Turn Slip-Lane

additional advantage to the right-turn slip-lane is the crosswalk is located in an area where the driver is still looking ahead. Right-turn slip-lanes should be included at any intersection where pedestrian crossings are located across dedicated right-turn lanes.

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Figure 13 Curb Extension

#### 1. On-Street Parking

On-street parking near pedestrian crossing points can interfere with visibility. When cars are parked too close to crossing points, they may block the line of sight between the driver and the pedestrian stepping off the curb to cross. City Code should prohibit parking within 20 feet of any corner and 30 feet of a stop sign, regardless of whether the corner is signed or the curb is painted.

#### C. Shared Use Path Facilities

Shared use paths, generally, are off-road corridors separated from the road system by an open space or barrier that provide bicyclist and pedestrians safe accessible routes. Shared use paths are recommended in locations where there is a high demand of both pedestrian and bicycle facilities. Shared use paths should offer opportunities not provided by the road system. They can provide a recreational opportunity, or in some instances, can serve as direct commute routes if cross flow by motor vehicles and pedestrians is minimized.



Figure 15 Shared Use Path

Shared use path designs should follow guidelines provided in Table 3 and the AASHTO Bicycle Facilities Guide.

#### Table 3. Dimensions for Shared Use Paths

Shared Use Path Element	Dimensions	Comments
Shared Use Path Width	-10=12ft	
Roadway Separation	5 ft.	Minimum separation for parallel,
		adjacent path; a physical barrier
		should be installed where
		minimum separation cannot be
		met.
Cleared Area Adjacent to Path	2-4 ft	Shoulders provide pull-
		off/resting and passing space
		should be graded to the same "
		Slope as the path Less than 2 ft.
		shoulder wath should only be
and support destants are supply for the		used in constrained areas
		Shoulder may be grassed.
Vertical Clearance	8-10 ft.	Necessary for good visibility and
		clearance for bikes on path.

There are challenges with providing off road facilities adjacent to streets that serve adjacent land uses because they can create confusion for motorists, bicyclists, and pedestrians alike. The key components to successful off-street paths are illustrated in Table 4.

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Table 4. Key Components of Successful Use Paths	
Key Components	Comments
Continuous separation from traffic to reduce conflicts and maintain safety	Street or driveway crossings should be limited.
Frequent connections to land-uses	Shared use paths should be connected to
	residential areas, shopping, schools, and other
	destinations.
Security	Proximity to housing and businesses increases
	visibility; illumination helps provide a sense of
	security at night.
Good design	Design should provide adequate width and grades,
	and avoid problems such as poor drainage, blind
	corners, and steep slopes.
Well-designed street crossings	Measures such as signals or median refuge islands
	may be used.
Proper maintenance	Shared use paths should be swept as needed and
	repair made so that they do not fall into disrepair.
	Paths that fall into disrepair are not used to their
	full potential and can be a liability.

#### 1. Restricting Motor Vehicles

Bollards, or other restrictive devices, should be used at entry ways onto a shared use path to restrict motor vehicles. Bollards placed in the shared use path should have reflective material on them and also be surrounded by a 6-inch solid yellow line to gain the attention of approaching bicyclists, as described in the MUTCD. Bollards should also be removable, with a locking mechanism in the event that maintenance



Figure 16 Shared Use Path Bollard

or emergency access is required.

#### D. Signage

Signs are a key component to a well designed and safe alternative transportation system. In general, signage within the bicycling and pedestrian transportation network is used to alert motorists of bicycling or pedestrian activity or to direct bicyclist and pedestrian movement towards designated areas, such as crosswalks or marked on-road corridors. While signage is vital to ensuring safety to bicyclists, pedestrians, and motorists, it is important not to overuse signage to a point that it is ignored by motorists so that it provides a false sense of safety or awareness.

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# V. Project Accomplishments since 2000

New facilities constructed since 2000 are shown in Table 5.

# Table 5. New Bicycle and Pedestrian Facilities 2000-2011

Location(s)	Facility Type	Approximate Distance	Date(s) Completed	Funding Source
Ceder Stream from 9 <sup>07</sup> Avero W Mangold Ave	Signatik	<b>-33</b> miles	20atil	ALDOT TE
Historic Business District Streetscape	Sidewalks, Lighting, etc.	0.35	2010	City
Miflin Road from Foley Beach Express to Fairway Dr	Bike Rath	0.5 miles	2010	City, Volunteers
Deborah Ct, Carolann Ct, Jeraldean Ct, Linda Ct, W Ariel Ave, & W Amanda Ave.	Sidewalks	1.28 miles	2010	City
Miflin Road Widening Beulah Heights	Sidewalks Sidewalks	1.75 miles 3.77 miles	2009 2009	City CDBG, City
Rose Trail	Shared Use Path	0.7 miles	2003,2007	Rails to Frails. City a

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# **VI. Common Challenges**

Some common challenges of constructing new infrastructure include:

- Many older streets lack sufficient right-of-way to construct new bicycle and pedestrian facilities.
- Crossing State Highway 59 (McKenzie St.) poses safety threats and greatly restricts access from one side of the City to the other. Minimal crossing opportunities at State Highway 59 limit accessibility from east to west.
- U.S. Highway 98 (Laurel Ave.) also poses safety threats limiting accessibility from north to south.
- These two major arterial streets divide accessibility from the residential areas to the three school campuses within the City.
- High traffic volumes, especially during the summer tourism months, further restrict safe crossing opportunities and create additional congestion within the City's roadway network.
- Like road projects, cost of bicycle and pedestrian facility projects are high and projects must be prioritized based on safety, history, motor vehicle, bicycle, and pedestrian traffic volumes, location, etc.

# VII. City and Regional Plans

City and Regional Plans that support alternative modes of transportation, bicycling, and walk-able communities that were referenced during the development of this Plan:

- <u>City of Foley Comprehensive Plan</u> This plan presents the long range vision for what the community strives to be in the future and identifies steps required to achieve this vision. It addresses a wide range of issues including, land use, housing, transportation, infrastructure, preservation of historic and natural resources, and economic development. It includes a strategic plan for greenways and should be amended to reference the Bicycle and Pedestrian Plan upon approval by the City Council.
- <u>Baldwin County Comprehensive Plan</u> The Baldwin County Comprehensive Plan was developed to guide future growth within Baldwin County. This plan addresses a wide range of issues including transportation, connectivity between communities, mass transit, and alternative modes of transportation such as bicycling.
- <u>City of Gulf Shores Draft Bicycle and Pedestrian Plan</u> The City of Gulf Shores is in the process of developing a Bicycle and Pedestrian Plan. The draft of this plan was referenced during the development of the Foley Bicycle and Pedestrian Plan to ensure that connectivity is provided between cities.
- <u>Town of Magnolia Springs Comprehensive Plan</u> This plan was also referenced during the development of the Foley Bicycle and Pedestrian plan to ensure that connectivity is provided between cities.
- <u>The Baldwin Trail Blazers</u> The Baldwin County Trailblazers is a grassroots organization of volunteers whose mission is to establish a countywide network of biking, hiking, jogging trails in partnership with local government. The Baldwin Trail Blazers developed a master plan for bicycle facilities throughout Baldwin County that will connect several cities. To date they have successfully constructed over 20 miles of bicycle and jogging paths. The Baldwin Trail Blazers master plan was referenced during the development of the Foley Bicycle and Pedestrian Plan.
- <u>Smart Coast Development Dialog</u> Smart Coast is a non-profit organization that encourages the use of the Smart Growth Principles to plan for the future development along the coastal regions. Some of these would be mixed use, walk-able communities, a range of housing, alternative transportation choices, a strong sense of place, and preservation of open spaces/farmland.

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# **VIII. Recommended Priorities**

This section provides the list of priority bicycle and pedestrian projects with estimated costs. Bicycle Facility and Pedestrian Maps showing existing and proposed facilities are also included in the Appendices.

# A. Estimate Baseline Costs

Cost information is provided for reference only. Although these values include estimated materials, equipment and labor costs, these values do not include right-of-way or other unforeseen costs which could change estimated project costs.

#### Table 6. Estimated Baseline Costs for New Facilities

Facility		
BIKE EINES	327/Ga&(0a9)	຺ໞຏຏຨ຺ຎຬຩຉຏຨຩຠຏຬ຺ຎຩ຺຺ຎຬຎຨໞຎຎຎຎຎຎ຺ຎຎ຺຺ຘຏຨຨ຺ຎຎຏ ຬຬຬຨ຺ຎຬຩຉຎຒຎ຺ຆຬຑຎ຺ຏຎຌຎຎຎຎຎຎຎຎຎ຺ຬຎຎ຺ຘຏຨຨ຺ຎຎຏ
Bike Lanes	\$52,800.00	Cost per mile for traffic control markings and signage only.
Complete Street	\$5728;000.00;	Cost per milertor 4 it pavement on both sides of streat 5 it concrete: sidewalls on both sides of streat, and traffic control markings and signage.
Bike Path	\$198,000.00	Cost per mile for 8 ft. wide asphalt path with traffic control markings and signage.
Bicycle Rome Signage	<b>3300.0</b> 0	Sign with post
Shared Use Path (Type A)	\$266,640.00	Cost per mile for 12 ft. wide asphalt path with traffic control markings and signage.
Shared Use Path (Type B)	\$285,120.00	Cost per mile for 12 ft wide concrete path with traffic control and markings and signage.
Sidewalks	\$184,800.00	Cost per mile for 5 ft. wide concrete sidewalk with traffic control markings and signage.
Pedestrian Signals	\$6,000.00	Assumes upgrading existing traffic signals to include pedestrian signals.

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Goals to Years	a Complete within 5					
					Approximate Distance	Estimated <sup>.</sup>
Priority	Street	From	To	Facility Type	(miles)	Cost
-	N HICKORY ST	W LAUREL AVE	W FERN AVE	<b>BIKE LANES</b>	1.00	\$280,052
2	S JUNIPER ST	E LAUREL AVE	E RIVIERA BLVD	BIKE LANES	1.85	\$516,909
m	N CEDAR ST	W LAUREL AVE	W FERN AVE	<b>BIKE LANES</b>	1.00	\$281,112
4	S CEDAR ST	W LAUREL AVE	ЭТН АVE	BIKE LANES SHARFD LISF	1;49	\$417,958
S	S JUNIPER ST	MIFLIN ROAD	E RIVIERA BLVD	PATH TYPE B	0.63	\$359,424
	GRAHAM CREEK					
9	NATURE PRESERVE ACCESS	FOLEY BEACH EXPRESS	GRAHAM CREEK NATURE PRESERVE	BIKE PATH	1 <u>96</u> 1	\$190.275
7	FOLEY BEACH EXPRESS	MIFLIN ROAD	COUNTY ROAD 12	BIKE PATH	0.99	\$196,238
				SHARED USE		
8	MIFLIN ROAD	FAIRWAY DRIVE	CLUBHOUSE DRIVE	PATH TYPE'A	0.58	\$154,278
6	N CEDAR ST	W ORCHID AVE	W MARIGOLD AVE	SIDEWALK	0.06	\$11,270
10	N CEDAR ST	W SECTION AVE	W BERRY ÄVE	SIDEWALK	0.24	\$43,610
11	W MAGNOLIA AVE	N OAK ST	N CEDAR ST	SIDEWALK	0.14	\$25,130
دی در د				SIDEWALKBOTH		200 CO
٦r	ICVRO N			SIDEWALK BOTH	nc'n	Not, EULS
13	W ORCHID AVE	N PINE ST	N OAK ST	SIDES	0.13	\$49,070
14	W CAMPHOR AVE	N PINE ST	NOAKST	SIDEWALK	0.13	\$23,485
				SIDEWALK		
15	W ORANGE AVE	S MCKENZIE ST	S ALSTON ST	RAHAB	0.06	\$18,000
16	S ALSTON ST	W ORANGE AVE	W LAURELAVE	SIDEWALK RAHAB	0.07	\$22,800
17	W LAUREL AVE	MCKENZIE ST	PINE ST	SIDEWALK	0.20	\$61,800

B. Bicycle & Pedestrian Facility Goals for the next 5 years

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