



LEE COUNTY MPO
BICYCLE



PEDESTRIAN
MASTER PLAN



LEE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION



ACKNOWLEDGEMENTS

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Amber Smith	City of Fort Myers
Andy Getch	Lee County DOT
Ben Pople	City of Sanibel
Bert Hamilton	Lee County BPAC
Daniel Calvert	Lee County Parks and Recreation
Dan Moser	Florida Bicycle Association , BikeWalkLee, MPO BPCC
Darla Letourneau	BikeWalkLee
Dawn Gordon	School Board of Lee County
Doug Dietrich	Lee MPO CAC
John Dulmer	City of Bonita Springs
John Patterson	Town of Fort Myers Beach
John Pohland	Lee MPO CAC
Margaret Banyan	Lee County Community Sustainability Committee
Mark Clark	FDOT (formerly)
Matt Noble/Jerry Murphy	Lee County Department of Community Development/EAR Consultant
Michael Horsting	Lee Tran
Nancy MacPhee	Lee County - Visitors & Convention Bureau
Persides Zambrano	City of Cape Coral
Peter Blackwell	Lee County DCD
Roger Fraser	LeeTran – Operations
Sarita Taylor	FDOT’s Bike/ Ped Coordinator for District 1
Steve Rodgers	Caloosa Riders Bicycle Club
Timothy Culhane (Captain)	Florida Highway Patrol

This plan is dedicated to all those committed to making Lee County a more livable community with safe and enjoyable transportation options for all pedestrians and cyclists.

Master Plan document prepared by the RWA consultant team:



Special thanks to Dan Moser for providing photographs used for Master Plan cover.

Executive Summary

The following report presents Lee County's first comprehensive bicycle and pedestrian master plan. The intent of this plan is to develop a county-wide network of bicycle and pedestrian facilities and provide a blueprint for transforming Lee County into a more bicycle and pedestrian friendly community.

Understanding that funds are seriously limited but that bicycle and pedestrian needs are limitless, this plan:

1. Establishes priorities for facility improvements;
2. Identifies three signature demonstration projects;
3. Identifies Special Projects to address "spot improvements," assess a cross-county "Rails with Trails" opportunity, and study needed improvements along the heavily traveled *Estero Boulevard* on Fort Myers Beach;
4. Addresses bicycle and pedestrian safety and the need to evaluate and improve roadways with high crash concentrations; and
5. Provides numerous policy recommendations to improve bicycle and pedestrian conditions throughout Lee County.

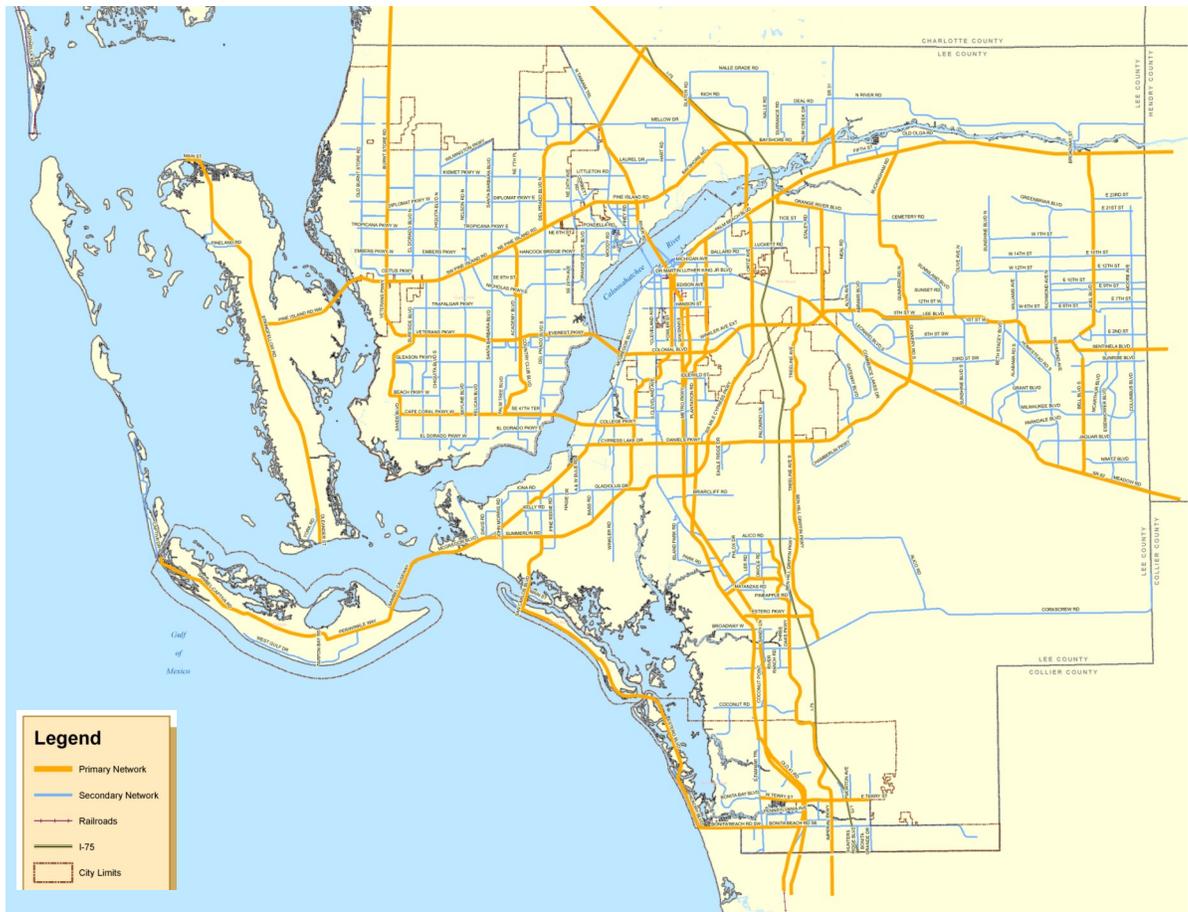
FACILITY IMPROVEMENTS

The master plan focuses on establishing a network of bicycle and pedestrians facilities along Lee County's arterial and collector roadways. Facilities along local roads are not addressed as part of this plan, but play an important role in developing a signature bicycle and pedestrian system and should be addressed through local plans and possibly through the county-wide master plan as more immediate priorities get addressed over time.

Currently, Lee County has bicycle facilities along 47% of all collectors and arterials, which represents about 459 linear miles of roadway coverage. Approximately 43% or 424 miles of all collectors and arterials within the County have pedestrian facilities. These figures represent a significant amount of bicycle and pedestrian facilities in Lee County; however, the facilities are very fragmented and lack continuity and connectivity. As a result, the current bicycle and pedestrian system is riddled with gaps and lacks a strategic approach to developing a comprehensive and cohesive network. This plan addresses this issue and prioritizes improvements by identifying a Primary and Secondary bicycle and pedestrian network (Exhibit I).

Executive Summary

Primary & Secondary Network Map



The Primary Network serves as the **backbone** from which a county-wide, interconnected system can evolve over time. The Primary Network represents the most immediate facility needs and establishes continuous corridors that interconnect local communities and provide access to transit and many of the area's most significant points of interest and employment centers.

The Secondary Network represents all other collectors and arterials in the County that feed into the Primary Network. Facilities along those roadways are deemed to be secondary priorities; however, should an immediate need be demonstrated or should special funding be available for a facility on the Secondary Network, this plan provides sufficient flexibility to allow this project to “jump up” the priority list.

Executive Summary

DEMONSTRATION PROJECTS

In addition to closing facility gaps, it was deemed very important to address network quality and user experience issues. While building the backbone network remains the top long-term priority, it is also important to provide immediate and highly visible improvements that will demonstrate how “top-notch” bicycle and pedestrian facilities could look and function. Three distinct demonstration projects were identified (Exhibit II):

- **The Lee Tour de Parks Route**
- **The University Loop;** and
- **The Winkler/Jefferson Complete Streets Project.**

Each project was selected to highlight various aspects that contribute to high-quality, user-friendly bicycle and pedestrian networks. The Lee Tour de Parks Route establishes a continuous route which interconnects numerous parks, preserve areas and recreational facilities within the County. The University Loop promotes the enhancement of existing facilities through painted bike lanes and a unified wayfinding and signage program. This project encourages bicycle and pedestrian modes of transportation for daily commutes to school, shopping and entertainment venues. The Winkler/Jefferson Complete Streets Project proposes interconnection of Winkler and Jefferson Avenues and physical improvements along the corridor. This project would demonstrate the look and feel of a complete streets project and would demonstrate the benefits resulting from designing roadways for all modes of transportation.

Demonstration Projects Map



Executive Summary

SPECIAL PROJECTS

The Special Projects address immediate needs that are beyond the scope of this master plan and require further study or the establishment of formal programs to address those needs. Some of these projects also require significant funds and considerable effort. Three Special Projects were identified:

- Spot Improvements – to address facility conditions, design deficiencies, operations and maintenance, and signalization and signage conflicts.
- Rails with Trails Opportunity – The Seminole Rail Line right-of-way presents an opportunity to develop a cross-county, off-road trail that could provide significant recreation, tourism and economic benefits. However, a Rails with Trails projects requires significant planning, cooperation, and funding to become a reality.
- Estero Boulevard Improvements – Estero Boulevard, which runs the length of Fort Myers Beach, is a heavily travelled corridor in which motorists, cyclists and pedestrians share limited space/public right-of-way. Improving this corridor and enhancing bicycle and pedestrian conditions will require further study and creative design solutions. As a result, Estero Boulevard has been identified as a special roadway project within the MPO's Long Range Transportation Plan and has been added to the Collier-Lee Bi-County Regional Transportation Network—Pathways Component map. Bicycle and pedestrian modes will be accommodated as part of the overall roadway improvements.

SAFETY AND CRASH ANALYSIS

Bicycle and pedestrian safety in Lee County has to be improved. Crash and fatality statistics demonstrate that Lee County as a whole is not a safe place for cyclist and pedestrian. However, preliminary review of crash data suggests that a large majority of crashes are located along a few roadways with similar characteristics. These roadways tend to be multi-lane, undivided roadways with bi-directional turn lanes such as Cleveland Avenue in Fort Myers and Old 41 in Bonita Springs. Further study of these high crash corridors is recommended and physical improvements such as raised medians and mid-block crosswalks should be evaluated.

POLICY RECOMMENDATIONS

In addition to facility improvements, this plan addresses approaches and strategies that can be used to transform Lee County into a more bicycle and pedestrian friendly community. Making that transformation will require the need to re-evaluate the primacy of the automobile and incorporate bicycle and pedestrian needs in every transportation decision we make. This plan provides 65 discrete policy recommendations that address a wide range of issues such as the exchange of information among jurisdictions, establishing programs that promote health benefits from cycling and walking, adopting performance measures, and ensuring coordination among departments and

Executive Summary

HOW TO USE THIS MASTER PLAN

This county-wide master plan is a product of the Lee County Metropolitan Planning Organization (MPO). The Lee County MPO is the County's transportation partnership responsible for transportation planning in Bonita Springs, Cape Coral, Fort Myers, Fort Myers Beach, Sanibel, and Unincorporated Lee County. The MPO is comprised of 16 voting members and one non-voting member as follows:

Voting Members

- Lee County: All five county commissioners
- City of Bonita Springs: Two elected officials
- City of Cape Coral: Four elected officials
- City of Fort Myers: Three elected officials
- Town of Fort Myers Beach: One elected official
- City of Sanibel: One elected official

Non-Voting Members

- FDOT, District 1: District Secretary or designee.

The MPO has no regulatory authority within the municipalities and unincorporated Lee County, but it does hold considerable influence over long-term transportation decisions since it is responsible for county-wide transportation planning and the prioritization of projects eligible for state and federal funding. Additionally, the MPO can provide policy guidance and recommendations regarding programs, plans and policies.

In the past, the MPO's role in long range bicycle and pedestrian planning was limited to two activities: identifying the bicycle and pedestrian facility improvements needed along state highways where no highway improvement projects were planned, and reviewing local governments' bicycle and pedestrian facilities plans to identify inconsistencies and discontinuities. This plan marks a departure from that approach in that it is much broader in scope.

This master plan is meant to be a blueprint that provides guidance to all jurisdictions in Lee County regarding facility improvements, and policy recommendations aimed at accommodating bicycle and pedestrian modes of transportation; promoting bicycling and walking; improving safety conditions; ensuring coordination amongst jurisdictions, departments and agencies; addressing regulatory and design standard consistency; and promoting "Complete Streets" principles. **This plan does not supersede any local plans and is not intended to duplicate or conflict with local governments' bicycle and pedestrian planning efforts.** It is meant to unify planning efforts, provide strategic approach in delivering bicycle and pedestrian facilities and guide facility improvement decisions within local jurisdictions.

This master plan focuses on all Lee County collectors and arterials available eligible federal funding. These include state maintained and county maintained roads, as well as local collectors and arterials. As presented above, this plan seeks to strategically develop a strong network of bicycle and pedestrian facilities throughout Lee County. Local jurisdictions are encouraged to support and augment this network through their local plans. Jurisdictions that do not have a bicycle and pedestrian master plan are encouraged to develop one or to adopt portions of the MPO plan as their own, if they so desire.

Over time, this master plan will be amended and updated to reflect changing needs and conditions. Planning for bicycle and pedestrian facilities is similar to all planning initiatives in that it is an incremental and iterative process. It should be understood that the Master Plan constitutes a living document that will need to be amended periodically similar to other transportation plans.

Executive Summary

HOW WAS THIS PLAN DEVELOPED

This master plan represents a collaborative effort between the MPO staff and its consultant with significant input from a Project Advisory Committee (PAC), comprised of stakeholders and representatives from various jurisdictions, and the public. This master plan builds upon existing plans, data and analysis, policy direction from the MPO Board and the Board of County Commissioners, significant public input, surveys, and dedicated involvement by bicycle and pedestrian advocates who continue to work with the local governments and the MPO to make sound transportation decisions that are inclusive of all modes of transportation.

This master plan is generally consistent with, supports or furthers the Collier-Lee Bi-County Regional Transportation Network – Pathways Component, Lee County Greenways System Master Plan, adopted policies regarding Bicycle and Pedestrian Accommodation and Complete Streets, and the County's Evaluation and Appraisal Report.

NEXT STEPS

The facility needs and priorities identified in this Master Plan will be incorporated within the MPO's LRTP. This represents the first step in implementing this master plan. However, a significant portion of this plan consists of policy recommendations that will necessitate further action on the part of the MPO, local jurisdictions and agencies. Along the way, changes might be made to this plan or individual recommendations, but a strategic approach to providing bicycle and pedestrian facilities throughout the County and the commitment to transform Lee County into a more bicycle and pedestrian friendly community should always be maintained.



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- Attachment 1: MPO Resolution 09-05
- Attachment 2: USDOT Policy Statement on Bicycle & Pedestrian Accommodations & Recommendations
- Attachment 3: Lee County Resolution 9-11-13: Complete Streets
- Attachment 4: Lee County's Greenways System Master Plan
- Attachment 5: Collier-Lee MPO, Bi-County Regional Transportation Network-Pathways Component Map
- Attachment 6: Public Workshop and Survey Results
- Attachment 7: PAC Meeting Agendas and Sign-in Sheets
- Attachment 8: BikeWalkLee Survey Results
- Attachment 9: BikeWalkLee Report—How safe are Lee County streets for pedestrians?



GLOSSARY

Definitions taken from the Florida Department of Transportation Plans Preparation Manual, Volume I and International Bicycle Fund, unless otherwise noted.

<http://www.dot.state.fl.us/rddesign/PPMManual/2011/Volume1/Chap08.pdf>

<http://www.ibike.org/engineering/glossary.htm>

AASHTO - American Association of State Highway Transportation Officials

The AASHTO develops and publishes design standards and guidelines for such things as bridges, highways, urban roads and other transportation structures. One of its documents is, "Guide for Development of New Bicycle Facilities." This document is frequently referred to as "AASHTO". A more comprehensive AASHTO document is the "Green Book". It is the bible for road design, except it omits standards for bicycle friendly roadways. It is currently being revised to include more of a bicycle-friendly message.

Access

A pedestrian's and bicyclist's general ability to travel to destinations in his or her community.

ADA -Americans with Disabilities Act

Requirements for ensuring equal opportunity for persons with disabilities in employment, State and local government services, public accommodations, commercial facilities, transportation and accessibility.

Barriers

Barriers usually refers to natural (hills, lakes, rivers) or man-made (freeways, bridges without sidewalks, neighborhood traffic control devices) obstacles to through traffic or access.

Bicycle Access

The ability of bicyclists to have access to roads and trails. See "Access".

Bicycle Lane (FDOT)

A bicycle lane (bike lane) is a portion of a roadway (either with curb and gutter or a flush shoulder) which has been designated by striping and special pavement markings for the preferential use by bicyclists.

Bicycle Way (FDOT)

Any road, path or way which by law is open to bicycle travel, regardless of whether such facilities are signed and marked for the preferential use by bicyclists or are to be shared with other transportation modes. Examples include bicycle lanes, paved shoulders, shared use paths, and traffic lanes.

Complete Street (from National Complete Streets Coalition)

Planning term for street or roadway that is designed and operated to work for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

Continuity

Pertaining to the physical continuousness of a route or facility.



Crash or Collision

A crash or collision, in fact reflect a mistake or combination of mistakes and are, as such, not "accidents". In terms of the bicyclist, collisions may involve the ground, a fixed object (e.g. a tree or bollard), a pedestrian, another cyclist, a parked or moving motor vehicle or an animal. They usually involve a mistake(s) on the part of users and/or the facility designers.

Cross-Section

Diagrammatic presentation of the right-of-way profile which is at right angles to the centerline at a given location.

Employment Hub

A high density area of business and/or commercial establishments.

Multi-Modal Travel

A trip that involves more than one mode of travel (in addition to pedestrian) is multi-modal travel.

Pavement Markings

Painted or applied line(s) or legend placed on any travel surface for regulating, guiding or warning traffic.

Rails-To-Trails

The conversion of abandoned railroad right-of-ways to non-motorized trails. Such trails may be public or private; free or requiring a user fee. In the USA, much of this effort is being spearhead by the Rails-To-Trails Conservancy.

Right-Of-Way

A term denoting land, property or interest therein, usually in a strip, publicly acquired for or devoted to transportation or utility purposes.

Road Diet

A road diet is a technique in transportation planning whereby a road is reduced in number of travel lanes and/or effective width in order to achieve systemic improvements.

Traffic Calming

This is a form of "traffic management" and involves actions to reduce and slow motor vehicle traffic, usually in residential neighborhoods. Techniques for traffic calming include; preventing through traffic, installing traffic circles, narrowing the street, using a rougher road surface, planting street trees, or building speed bumps.

Transportation Demand Management (TDM)

TDM is the application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles), or to redistribute this demand in space or in time



ACRONYMS AND ABBREVIATIONS

AAA	American Automobile Association
AASHTO	American Association of State Highway and Transportation Officials
ADA	American with Disabilities Act
ARRA	American Recovery and Reinvestment Act
BOCC	Board of County Commissioners
BPAC	Bicycle Pedestrian Advisory Committee
BPCC	Bicycle Pedestrian Coordinating Committee
CAC	Citizen's Advisory Committee
CDBG	Community Development Block Grant
CIP	Capital Improvement Plan
CPTED	Crime Prevention Through Environmental Design
CRA	Community Redevelopment Area
DOT	Department of Transportation
DCA	Department of Community Affairs
EAR	Evaluation and Appraisal Report
EPA	Environmental Protection Agency
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FLHSMV	Florida Department of Highway Safety and Motor Vehicles
GIS	Geographical Information System
LAP	Local Assistance Program
LDC	Land Development Code
LDOT	Lee County Department of Transportation
LDR	Land Development Regulations
LRTP	Long-Range Transportation Plan
MPO	Metropolitan Planning Organization
MPOAC	Metropolitan Planning Organization Advisory Council
MUTCD	Manual on Uniform Transportation Control Devices
NHTSA	National Highway Transportation Safety Administration
NPTS	National Personal Transportation Survey

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PAC	Project Advisory Committee
PPP	Public-Private Partnership
ROW	Right-of-Way
RTP	Recreational Trails Program
ROGG	River of Grass Greenway
SRTS	Safe Routes to School
TE Funds	Transportation Enhancement Funds
TAC	Technical Advisory Committee
TDM	Transportation Demand Management
USDOT	U.S. Department of Transportation
XU Funds	Urban Attributable Funds
VMT	Vehicle Miles Traveled

Project Background

BACKGROUND

The Lee County Metropolitan Planning Organization (MPO) Bicycle Pedestrian Master Plan is intended to address the transportation needs of pedestrians and bicyclists by providing improved accessibility and connectivity, and a safer and more comfortable environment for those modes of transportation. This mandate results from clear policy guidance provided by the MPO and Lee County over the last two years.

The Lee County MPO has included a Bicycle Pedestrian Element as part of its Long Range Transportation Plan (LRTP) since 2000, but until now, the MPO has never had a comprehensive Bicycle Pedestrian Master Plan.

In Lee County and throughout the United States, it is becoming widely accepted that livable, desirable and sustainable communities provide multi-modal transportation systems that embrace cyclists and pedestrians. It is recognized that bicycling and walking are fundamental modes of travel that **must** become an integral part of Lee County's transportation network. It is also understood that planning for all modes of transportation provides economic, health, safety, mobility, social, infrastructure, and environmental benefits.

Every trip begins and ends with a pedestrian!

Policy Guidance:

Recent policy decisions in Lee County make it clear that county leaders support and are committed to the development of a balanced multi-modal transportation system that integrates walking, bicycling, and transit modes of transportation.

MPO Resolution 09-05 (Attachment 1)

On August 21, 2009 the MPO Board adopted resolution 09-05 "Requesting FDOT District 1 and the Local Governments in Lee County to Accommodate Bicycle Pedestrian and Transit Facilities in Roadway Design in Construction Plans." Most notably, this resolution identifies the need to accommodate bicycle, pedestrian, and transit facilities when planning and designing roadway projects during new road construction, reconstruction, resurfacing, and traffic operations/intersection improvements. It also calls for the development of a Countywide Bicycle Pedestrian Master Plan to provide uniform policy guidance for all jurisdictions within Lee County.

This resolution recognizes:

- The need to improve bicycle and pedestrian safety conditions in Lee County
- Florida State statutory requirements to include bicycle and pedestrian facilities on new or reconstructed state roads
- The need for the MPO and local jurisdictions to work together to improve bicycle/pedestrian and transit plans
- The need to have uniform Land Development Regulations regarding the provision on bicycle, pedestrian and transit facilities on public streets, roadways, and highways adjacent to new development
- *The desire to integrate transit facilities with land uses and accommodate neighborhood needs in the design of transit stops*
- *The need to address American Disabilities Act (ADA) requirements*

It also requests that:

- *FDOT District 1 and local governments refer to FDOT District One and Seven Transit Facility Handbook for guidance while designing transit facilities in roadway projects, and*
- *That when FDOT District One reviews plans submitted by developers for permitting construction on state rights-of-way they do so by ensuring that the plans adjacent to development accommodate bicycle, pedestrian and transit facilities consistent with the MPO's Long Range Transportation Plan and the Lee County Transit development Plan, and*
- *That the MPO have their staff report to the MPO Board all exceptions to these policy statements granted by FDOT District One and any local government in Lee County.*

Project Background

MPO Support for USDOT's Bicycle and Pedestrian Accommodation Policy

On March 19, 2010 the MPO Board also voted to support USDOT's "Policy Statement on Bicycle and Pedestrian Accommodations & Recommendations" (Attachment 2) issued on March 15, 2010. The Policy Statement is as follows:

"The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes."

Most notably, the USDOT also states that:

- Transportation agencies and local communities should consider walking and bicycling as equals to other transportation modes
- Walking and bicycling networks should be part of Federal-aid project development
- Walking and bicycling foster safer, more livable, family-friendly communities; promote physical activity and health; and reduce vehicle emissions and fuel use
- Transportation agencies should go beyond minimum requirements and should proactively provide safe and context sensitive facilities
- Programs and facilities should accommodate people of all ages and abilities, including people too young to drive, people who cannot drive, and people who choose not to drive

Lee County Resolution 9-11-13: Complete Streets

Furthermore, On November 10, 2009 the Lee County Board of County Commissioners (BOCC) adopted resolution 9-11-13 (Attachment 3), directing the County Manager to adopt a "Complete Streets Program" aimed at integrating bicycling, walking and public transit with the County's transportation, climate, energy, smart growth programs, policy initiatives, and goals and objectives.

This resolution not only outlines the benefits of an integrated multi-modal system, and the need for a Complete Streets program in Lee County, but actually directs the County Manager to take specific and immediate action to implement that program. As directed by this Resolution, an update to the Action Plan was developed by the County and approved by the BOCC in November 2010. This update includes the following actions and deliverables in the development and implementation phase:

- Modified transportation planning and budgeting process
- Development of exceptions process to bicycle, pedestrian and transit accommodation requirements
- Development of guidelines for implementation
- Revisions to the functional classification of roads
- Integration of complete streets principles into community planning process
- Review of transit stops for complete street connections
- Update of the Greenways and Trails Master Plan
- Develop human health indicators related to Complete Streets
- Provide an annual report to the BOCC on implementation status of complete streets, including performance indicators and results for meeting goals.

Project Background

PURPOSE

The purpose of this Master Plan is to establish a blueprint for developing a countywide bicycle and pedestrian network, and to provide a countywide benchmark with which future network improvements can be measured. This Master Plan is meant to be a standalone document; however, parts of this plan may also inform, augment or be incorporated within the Bicycle Pedestrian Element of the MPO's Long Range Transportation Plan (LRTP).

In the past, the MPO's role in long range bicycle and pedestrian planning was limited to two activities: identifying the bicycle and pedestrian facility improvements needed along state highways where no highway improvement projects were planned, and reviewing local governments' bicycle and pedestrian facilities plans to identify inconsistencies and discontinuities. This plan marks a departure from that approach in that it is much broader in scope.

This blueprint is meant to provide guidance to all jurisdictions in Lee County regarding facility improvements, and policy recommendations aimed at accommodating bicycle and pedestrian modes of transportation; promoting bicycling and walking; improving safety conditions; ensuring coordination amongst jurisdictions, departments and agencies; addressing regulatory and design standard consistency; and promoting "Complete Streets" principles. This plan is not intended to supersede, duplicate or conflict with local governments' bicycle and pedestrian planning efforts. It is meant to unify planning efforts, and influence facility improvement priorities within each jurisdiction.

In keeping with the mandate of developing a countywide plan, this master plan focuses on all Lee County collectors and arterials available for federal funding. These include state maintained roads, county maintained roads, and local collectors and arterials. Understanding that there are limited funds and limitless needs, concentrating on collectors and arterials will allow the MPO to develop a strong network that will form the backbone for the entire Lee County bicycle and pedestrian system. Local jurisdictions will be encouraged to support and augment this network through their local plans. Over time, this master plan will be amended and updated to reflect changing needs and conditions. Bicycle and pedestrian improvements to local roads, which play an important role in developing a comprehensive interconnected system, are not specifically included in this Master Plan. Besides the use of local funding, several sources are used to build sidewalks on local roads, including Safe Routes to School and Transportation Enhancement funding, which are applied for by the School District and local jurisdiction.

Planning for bicycle and pedestrian facilities is similar to all planning initiatives in that it is an incremental and iterative process. It should be understood that the Master Plan constitutes a living document that will need to be amended periodically similar to other transportation plans.

NEED

Lee County is a south Florida paradise home to 613,546 people¹. It is a popular destination for tourists and seasonal residents, and is characterized by its beautiful beaches and great weather. These attributes allow for innumerable outdoor activities and active lifestyles, and the warm weather provides year-round opportunities for walking and cycling. However, walking and bicycling remain marginal modes of transportation in Lee County. Expanding and enhancing Lee County's bicycle and pedestrian network can provide numerous benefits including improved safety, enhanced mobility options for all, as well as, health, environmental, social, and economic benefits.

Current roadway system is not enough.

Florida's road system has not kept up and will not be able to keep up with anticipated population growth unless alternative modes of transportation are provided. Over the last decade, Florida's growth in population and vehicle miles travel (VMT) have outpaced our ability to expand our roadway system.

¹ Lee County 2010 EAR

Project Background

This means increased congestion on our roadways and points to the need for improved bicycle, pedestrian, and transit facilities. As Lee County continues to grow, increased density and intensity in the urban areas will require bicycle and pedestrian improvements in order to maintain acceptable levels of service, and provide increased transportation choices to all residents and visitors.

Walking and bicycling can help to reduce roadway congestion. Walking and cycling require significantly less space per traveler than driving. Pedestrians and bicycle facilities along roadways can also enhance safety for motorists. For example, adding paved shoulders on two-lane roads has been shown to reduce the frequency of run-off-road, head-on, and sideswipe motor vehicle crashes².

Exhibit A: Bike and Walk to Work (US Census)

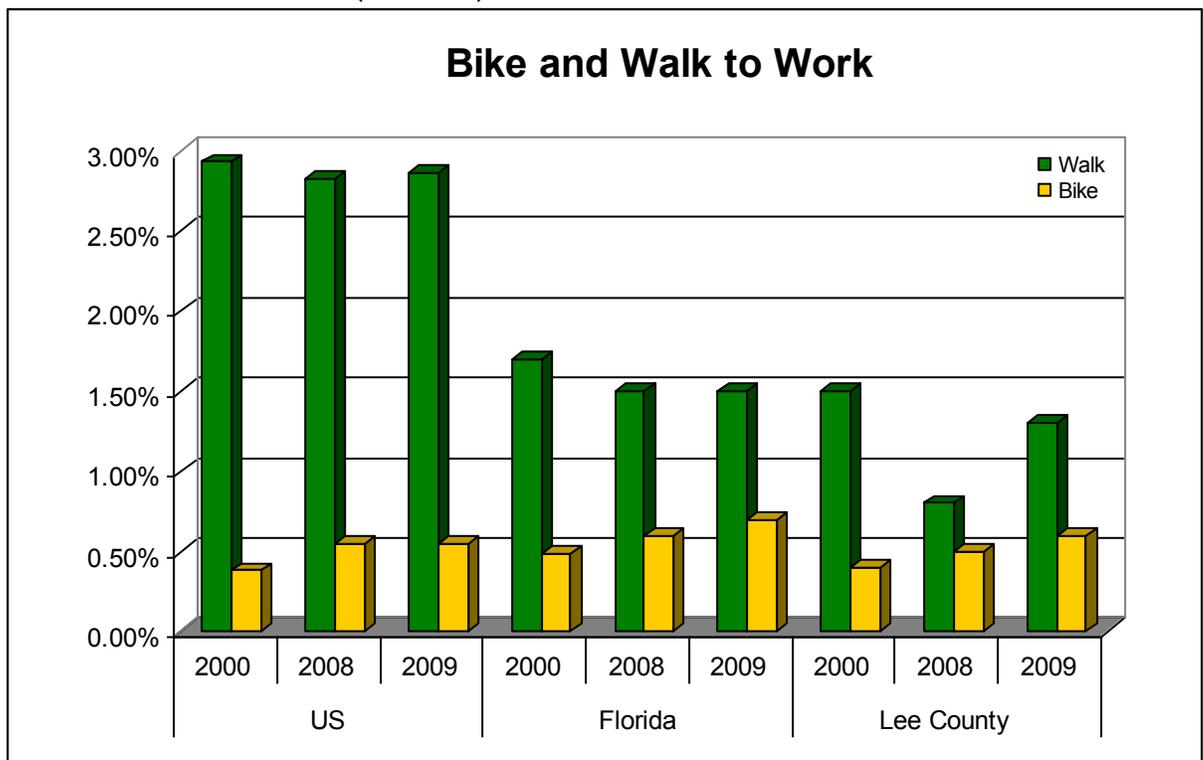


Exhibit B: Population vs. VMT

Vehicle Travel Outpaced Florida's Population and Roads between 2000 and 2007*	
Increase in vehicle miles traveled (VMT)	35%
Increase in population	17%
Increase in lane-miles of all roads	6%

*Florida's VMT peaked in 2007, declining by 3.6 percent in 2008 with the slowing economy.
 SOURCES: FHWA, Highway Statistics; Florida Demographic Database.

² www.walkinginfo.org

Project Background

Travel Facts:

- Most of the trips that Lee County residents make every day are short enough to be accomplished by foot or bicycle. The 1995 National Personal Transportation Survey (NPTS) found that approximately 40 percent of all trips are less than two miles in length or the equivalent of a 30-minute walk.
- Vehicle miles traveled (VMT) around the U.S. have increased by 70 percent over the last 20 years, compared with a two percent increase in new highway construction³.
- The U.S. General Accounting Office predicts that road congestion in the U.S. will triple in 15 years even if capacity is increased by 20 percent⁴.
- Traffic is growing about five times faster than the growth in population⁵.
- Nationally, 78% of all federal transportation dollars are spent on roads, with 20% on transit, and only 1.5% for walking and biking. However, in a national transportation poll done in 2007, Americans said that 22% of the transportation budget should go to walking and biking, and 41% for public transportation⁶.

Safety – reducing crashes and deaths

Every trip begins and ends by walking and/or biking, so every effort should be made to ensure that pedestrians and bicyclists feel safe and comfortable during all parts of their trip. Unfortunately, **Florida ranks #1 among all states in both bicyclist and pedestrian fatality rates** according to the National Highway Traffic Safety Administration (Traffic Safety Facts 2009, NHTSA, p. 154-5 & 164-5). A recent report by Transportation for America entitled “Dangerous by Design” indicates that Florida has the dubious distinction of being home to four of the top five most dangerous metro areas nationally for walking⁷. This report calculates a pedestrian danger index, by dividing the average pedestrian fatality rate (2007-2008) by the percentage of residents walking to work (2000). Based on this Study, the Fort Myers-Cape Coral metropolitan area scored a 183.3, which is higher than the state average of 167.3 and significantly higher than the national average of 52.1. Lee County had the 9th highest pedestrian danger index score out of the 20 metro areas in Florida.

Concerted efforts to improve conditions in Lee County have reduced the number of crashes and fatalities in recent years; however continued improvements are needed to further improve bicycle and pedestrian safety conditions on Lee County streets.

Safety Facts:

- Florida’s pedestrian fatality rate (per 100,000 people) is over 85% higher than the national average⁸.
- Nationally, while 9% of all trips are made by foot or bicycle, more than 13% of all traffic fatalities are bicyclists or pedestrians⁹.
- Florida’s bicycle fatality rate of 6.52 per million is almost three times the national average¹⁰.
- Florida’s pedestrian fatality rate of 2.19 per 100,000 is almost double the national average¹¹.
- Lee County ranks 23rd out of the 360 metro areas in the nation when it comes to being hazardous for walkers¹².
- Between 2007-2009, 59 pedestrian and cyclists have died on Lee County streets (FLHSMV)

³ Data compiled for a report to the U.S. Department of Transportation in 2006 written by Stephen Polzin, (transportation researcher at the University of South Florida in Tampa.)

⁴ ibid

⁵ ibid

⁶ Active Transportation for America report, 2008.

⁷ Dangerous by Design

⁸ Dangerous by Design

⁹ Complete Streets, “Improve Safety for Everyone” fact sheet, 2008

¹⁰ NHTSA’s National Center for Statistics and Analysis, 2007

¹¹ ibid

¹² How safe are Lee County streets for pedestrians, BikeWalkLee 2009

Project Background

Social equity

In order for a community to be sustainable, people need to be able to move around efficiently to meet their daily needs. People of all ages and abilities should have mobility options that suit their condition. A community should offer a full range of transportation choices: walking, biking, driving, and transit wherever feasible. Providing choices and access to transportation is a social equity issue. One consequence of not installing appropriate bicycle and pedestrian facilities is to force people to travel by personal vehicle or to engage in unsafe walking practices. For those who do not have the option to drive, such as adolescents or the elderly, those unable to afford a car, and people with certain disabilities, this lack of transportation choices creates an inconvenient and socially unjust barrier to mobility. By providing safe and convenient pedestrian facilities, Lee County can ensure that all citizens have access to a viable mode of transportation. The current demographic makeup of Lee County and the continued aging of its population re-enforces the need to improve transportation choices.

Social Equity Facts:

- Approximately 9% of U.S. households do not own an automobile (2009 NHTS). For Florida households that number is 8% and for the City of Fort Myers it is approximately 18%¹³.
- Households with an annual income of less than \$25,000 are nine times more likely to have no car than households with incomes of greater than \$25,000 (NHTS 2001).
- 46% of Lee County's population is over 50 years old¹⁴; 8.1% African-American; 17.4% Latino or Hispanic origin
- While only accounting for 12 percent of the population, African-Americans make up 20 percent of pedestrian fatalities (Pucher and Renne)¹⁵.
- Only 0.7 percent of federal transportation funds are spent on improving pedestrian facilities (Pucher and Renne)¹⁶.

Increasing transportation options and lowering costs

Walking and biking are affordable modes of transportation. Car ownership is expensive, and consumes a major portion of many Americans' income. When safe, enjoyable facilities are provided for pedestrians and cyclists, people can walk and bike more and spend less on transportation, meaning they have more money to save or spend on other things.

Money Facts:

- The cost of car ownership continues to rise. The second largest expenditure for the average consumer is transportation¹⁷. The American Auto Association (AAA) calculates that the annual cost in 2009 of owning and operating a personal vehicle ranged from \$5,500 for a small sedan driven 10,000 miles to \$11,500 for an SUV driven 20,000 miles.
- According to 2004 data from AAA estimates and US Census surveys, ownership of one motor vehicle accounts for more than 18 percent of a typical household's income.
- The cost of operating a bicycle for a year is only \$120 (League of American Bicyclists).
- Walking is free!

¹³ City of Fort Myers Bicycle and Pedestrian Plan

¹⁴ 2000 US Census

¹⁵ www.walkinginfo.org

¹⁶ www.walkinginfo.org

¹⁷ Visual Economics: How the Average US Consumer Spends Their Paycheck—www.visualeconomics.com

Project Background

Walking and Biking promotes healthy lifestyles

This country is facing an obesity epidemic with extensive individual and social costs. However, many health issues can be prevented through a healthy diet and regular physical activity. Cardiovascular exercise, including walking and biking, can provide far-reaching health benefits including: reduced risk of developing or dying from cardiovascular disease, hypertension, colon cancer, type 2 diabetes and improves mental health. Findings also suggest that endurance-type physical activity may reduce the risk of developing obesity, osteoporosis, depression, and may improve psychological well-being and quality of life. For older adults, benefits include a stronger heart, a more positive mental outlook, and an increased chance of remaining indefinitely independent—a benefit that will become increasingly important as our population ages in the coming years¹⁸. On the brighter side, the new Fit Friendly Southwest Florida coalition has been formed to educate the public and combat this epidemic.

Health Facts:

- 61% of adults in the U.S. are overweight or obese.¹⁹
- 17% of children ages 2 –19 are obese, 4 times more than 40 years ago.
- Obesity is second behind tobacco in U.S. health risk factor and contributes to approximately 300,000 deaths per year.²⁰
- This generation of children will be the first to have a shorter lifespan than their parents in over 200 years.²¹
- 70% of US adults are sedentary; 28% who engage in no leisure-time physical activities and 42% who undertake less than 30 minutes of physical activity (such as walking) each day.²²
- In Lee County, 64% of adults and 32% of children are overweight or obese.²³
- In one generation, the percentage of children in the US who walk or bike to school has dropped from 50% to 15%.²⁴



¹⁸ Surgeon General's Report on Physical Activity and Health

¹⁹ ibid

²⁰ ibid

²¹ Center for Disease Control

²² President's Council on Physical Fitness and Sports

²³ Lee Memorial Health System 2007 Community Health Assessment

²⁴ Safe Routes to School National Partnership, 2007

Project Background

Reduced reliance on the automobile reduces carbon footprint and benefits the environment

Reducing our reliance on the automobile can reduce our emissions of green house gases and help conserve energy. Transportation is a major source of greenhouse gas emissions. According to the Florida Department of Community Affairs (DCA), over 40% of greenhouse gas emissions in Florida are transportation-related. Of these emissions, over 80% come from vehicular travel. Therefore, in order to reduce greenhouse emissions from cars and trucks, we must reduce vehicle miles traveled.

The DCA further states that green house gas reduction *“will require new or enhanced transportation and land use planning strategies, including planning for alternative modes of travel, more compact mixed-use development, improved jobs-housing balance, and higher and/or minimum densities in appropriate places.”*²⁵

The Florida Legislature enacted House Bill 697 in the 2008 session which established new local planning requirements relating to energy efficient land use patterns, transportation strategies to address greenhouse gas reductions, energy conservation, and energy efficient housing.

In addition to green house gas reduction benefits, walkable and bikable communities also produce other environmental benefits including:

- Reduced land needed for roads and parking facilities
- Open space preservation
- Reduced energy consumption
- Improved aesthetics
- Reduced water pollution
- Reduced “heat island” effects

Recently, Lee County adopted the Lee County Sustainability Strategy, which kicks off a multi-year effort to develop a Sustainability Plan. This strategy embraces complete streets and provides a holistic approach for creating “a livable and resilient community where there is an unmistakable balance between social well-being and equity, economic prosperity, and environmental resource conservation.”

Environmental Facts:

- Motor vehicle emissions represent 31% of total carbon dioxide, 81% of carbon monoxide, and 49% of nitrogen oxides released in the U.S. (The Green Commuter, A Publication of the Clean Air Council).
- 60% of the pollution created by automobile emissions happens in the first few minutes of operation, before pollution control devices can work effectively. Since “cold starts” create high levels of emissions, shorter car trips are more polluting on a per-mile basis than longer trips (League of American Bicyclists).
- The Fort Myers/Cape Coral metro area’s carbon footprint is among the highest of the 100 metro areas in the U.S.²⁶
- The largest source of Lee County’s carbon emissions is from automobile use. Lee ranked 95th, i.e., only 5 metro areas in the nation have worse per capita carbon emissions caused by automobiles.²⁷

²⁵ <http://www.dca.state.fl.us/fdcp/dcp/EnergyGHG/index.cfm>

²⁶ Brookings Institute Report: Shrinking the Carbon Footprint of Metropolitan America, 2008

²⁷ *ibid*

Project Background

Livable & desirable communities are walkable and bikable

Better conditions for walking and biking have intangible benefits to the quality of life in cities and towns. Now more than ever, walkable and bikable communities are considered more livable and desirable—a factor that has a profound effect on attracting businesses and workers, as well as tourists and retirees. Cities and towns where people can regularly be seen out walking or biking are considered safe and friendly places to live and visit.

This livability factor is especially significant to Lee County, whose economy relies heavily on tourism and seasonal home-owners. By providing appropriate pedestrian and bicycle facilities and amenities, and integrating land use and transportation decisions, Lee County can promote compact walkable communities. This will encourage interaction between neighbors and other citizens that can strengthen relationships and contribute to a healthy sense of identity and place.

Livability Facts:

- Homes located in walkable neighborhoods command a premium of about \$4,000 to \$34,000 over houses with just average levels of walkability in the typical metropolitan areas studied.²⁸
- According to a 1998 analysis by ERE Yarmouth and Real Estate Research Corporation, real estate values over the next 25 years will rise fastest in “smart communities” that incorporate traditional characteristics of successful cities including a mix of residential and commercial districts and a “pedestrian-friendly configuration.”
- A safe and accessible bike and pedestrian transportation network is the foundation for safe, livable communities. When people get out of their cars, there is more human interaction, more awareness of community conditions, and a better sense of community. When destinations are easy to reach by bike and foot, our neighborhoods are more welcoming.²⁹

“Walk Score” is the first large-scale, public access walkability index (see walkscore.com). It ranks communities nationwide based on how many businesses, parks, theaters, schools and other common destinations are within walking distance of any given point (from Wikipedia). Walkability scores are between 0 and 100; below 50 are deemed car-dependent, while scores of 70 and above are very

Exhibit C: Walkability Scores

“Walkability” Scores (by WalkScore.com)		
<u>Location</u>	<u>State Rank</u>	<u>Score</u>
Miami Beach, FL	1 (tie)	75
Miami, FL	3 (tie)	72
Tampa, FL	38 (tie)	51
Orlando, FL	48 (tie)	53
Fort Myers, FL	71 (tie)	47
Cape Coral, FL	129 (tie)	31
Bonita Springs, FL	133 (tie)	30
Deltona, FL	147 (tie/last)	21

²⁸ Walking the Walk: How Walkability Raises Housing Values in US Cities, Joseph Cortright

²⁹ National Conference of State Legislatures: Encouraging Bicycling and Walking, 2008

Project Background

walkable. The 149 largest cities in Florida have an average Walk Score of 45. The three Lee County cities included in the study have a score below 50. *CEOs for Cities* released a study based on Walk Score that shows a one point difference in Walk Score correlates up to \$3,000 in increased property value, depending on the metro area.

Economic benefits

Improving conditions for walking and biking produce numerous economic benefits including reduced transportation cost, improved parking efficiency, increased business activity, support for an effective transit system, improved property values, increased tourism, and health care savings. Many communities that reluctantly invested in pedestrian and bicycle infrastructure improvements have seen surprising economic returns.

Economic Facts:

- Numerous communities attribute economic benefits including improved real estate values, increased retail sales, and greater tourism to improving pedestrian and bicycle environments. Examples of this include central West Palm Beach, communities located on the Pinellas Trail, and downtown Winter Park.
- In 1992, an estimated 32,500 visiting cyclists spent \$13.1 million in Vermont – about twice the amount of money generated by Vermont’s maple syrup producers in a good year.³¹
- According to “Paved with Gold: the Real Value of Good Street Design, Commission for Architecture and the Built Environment, London 2007”, On a seven-point pedestrian environment scale, every one point increase in walkability was associated with 5.2% higher retail prices and 4.9% higher commercial rents.
- Bicycling generates \$133 billion in U.S. economic activity annually, twice the impact of recreational fishing. It supports approximately 1.1 million jobs.³¹
- According to the United States Department of Agriculture, at the Virginia Creeper Trail in southwest Virginia, bicycle visitors spend \$1.59 million annually providing an estimated 27 new full time jobs.³²
- Total visitor spending estimates for six trailheads along the Allegheny Trail in Pennsylvania ranged from \$5.4 million to \$14.1 million in 1998.³³
- American consumers bought 19.8 million bicycles in 2005—4.4 million more than all the cars and trucks purchased that year.³⁴
- Bike and pedestrian projects generate 65 jobs per \$1 million spent vs. 42 jobs per \$1 million for traditional road projects.³⁵

The revival of the city is driven, in part, by the trail,” says Mayor Lee Fiedler (Cumberland, MD.), who ordered bike racks installed on downtown corners. “No one thought people with bikes would spend money, but they were wrong. Business is spreading back from the trail”

-Baltimore Sun, December 2006

³⁰ Bicycle Touring in Vermont and Vermont’s Scenic Byways Program, Bruce Burgess, 1995

³¹ League of American Bicyclists

³² TCRP Report 102 “Transit-Oriented Development in the United States: Experience, Challenges, and Prospects” Robert Cervero, 2004

³³ Univ. of Pittsburgh and Pennsylvania Economy League, Inc. “An Economic Impact Study for the Allegheny Trail Alliance” Stephen Farber, 1999

³⁴ National Bicycle Dealers Association, Bureau of Transportation Statistics

³⁵ League of American Bicyclists

Public Involvement

The public involvement process for this project took advantage of the existing network of active bicycle and pedestrian stakeholders in Lee County and utilized a bike/ped Coordinating Committee from the MPO (MPO BPCC) and BikeWalkLee, a coalition that works with local governments, officials and staff members, to lead public input efforts and ensure representation from a wide cross-section of stakeholders.

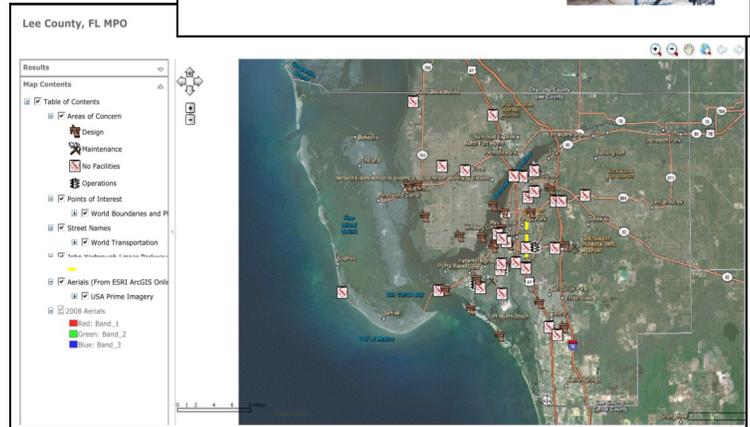
The PAC was comprised of 23 members, many of which were existing members of the Lee County Technical Advisory Committee (TAC), Citizens Advisory Committee (CAC), and the Bicycle Pedestrian Coordinating Committee (BPCC). Also, the PAC included staff representatives from the MPO, Lee County, local municipalities, public agencies, and advocacy groups. The PAC met on seven different occasions throughout 2010 and 2011 to discuss various aspects of the master plan.

In addition to the PAC, several other public involvement tools were used over the duration of the project, including a project website, an interactive Geographical Information Systems (GIS) Issues Map, field investigation by volunteers, an online survey, open-house kiosk at a BikeWalkLee event, as well as a public workshop.

The website provided project summaries and updates, and allowed the public to submit feedback via email. Additionally, the website allowed users to identify gaps in the existing bicycle and pedestrian network, report design deficiencies, report maintenance and operation issues, and provide photos of problem areas. The information was compiled and used to create an interactive GIS map. This map provides the geographic location of the reported issues, along with a brief description of each issue, and when provided by the user, a photo of the problem.

This project required identification and classification of all existing bicycle and pedestrian facilities on collectors and arterials within Lee County. The project team used existing GIS data for the various jurisdictions, and aerial photography to ascertain the type of facility when the data was lacking. Even through the use of aeriels, some information gaps remained. Through the assistance of volunteers, from Caloosa Riders Bicycle Club and BikeWalkLee, those areas were field verified and accurate information was gathered, allowing the project team to assemble a comprehensive database of all bicycle and pedestrian facilities.

In the spring of 2010, **BikeWalkLee** sponsored a **public involvement event** at Lakes Park to provide input into the development of the Master Plan. Participants were asked to complete a preference survey and identify desired improvements and concerns on a map. The survey results and mapping exercise have been utilized in the development of this plan.



Public Involvement

A public workshop for the Bicycle Pedestrian Master Plan was also held on July 19, 2010 in conjunction to the MPO's LRTP workshop. This workshop consisted of two components: an open house portion where the public could review documentation from the project and ask questions to the project team; and an interactive workshop which consisted of a presentation, a live-polling survey, and charrette-type activity where participants identified priority corridors and oversized maps. The live-polling survey allowed participants to respond to question via a hand-held polling device and to see the results presented real-time on a screen. The real-time results are often very interesting to participants and allow further questions and comments from the audience.

Input from the PAC and the general public was invaluable in developing a comprehensive bicycle and pedestrian facilities database, identifying issues of concern and facility needs, and developing a methodology for prioritizing those needs.



Based upon policy direction, the project scope and intent, identified project needs, and input from the PAC, the following master plan mission and goals were developed. The vision statement concisely summarizes what the MPO and Lee County communities want to accomplish with regards to improving the bicycle and pedestrian network. The goals provide further detail on how to accomplish that vision. The vision and goals were used to guide this master plan and to develop the needs plan and facility priorities.

Vision Statement:

Provide a comprehensive, safe, and connected bicycle and pedestrian network that enhances economic development, livability, and social equity for all Lee County citizens and visitors.

Consistent with the Vision Statement, the master plan goals form the basis for identifying and evaluating improvement needs. These goals were also used to develop objective evaluation criteria that were used to prioritize project improvements. The goals developed for the plan include:

GOAL 1. Provide a Safe Bicycle and Pedestrian Network
Provide a safe bicycle and pedestrian network which ensures that residents and visitors feel comfortable and secure while traveling in Lee County.
GOAL 2. Provide Connectivity
Develop a bicycle and pedestrian network that enhances connectivity throughout Lee County. This network will connect to transit, link trip generators and attractors, provide continuous travel corridors, reduce barriers and conflicts, close facility gaps, and interconnect major network corridors.
GOAL 3. Provide Mobility Options
Provide increased mobility options for all Lee County visitors and residents by providing opportunities for a wide range of users.
GOAL 4. Promote Economic Development
Encourage increased economic opportunity by supporting a bicycle/pedestrian friendly community and by encouraging or sustaining business activity along bicycle and pedestrian networks and facilities.
GOAL 5. Increase Livability
Provide bicycle and pedestrian networks that promote livable communities that are family-friendly, human-scaled, and aesthetically pleasing.
GOAL 6. Provide Public Education
Provide public education related to the benefits of bicycling and walking, and related to state and local laws governing operator behavior.
GOAL 7. Consider all Users in Transportation Planning
Provide equitable and cost efficient transportation facilities by including all road users (bicycles, pedestrians, transit riders, and automobiles) in all aspects of transportation planning.

Existing Conditions

COMMUNITY PROFILES

Lee County encompasses 804 square miles of land area; including five incorporated municipalities: Bonita Springs, Cape Coral, Fort Myers, Fort Myers Beach and Sanibel. Each of these jurisdictions has unique demographics and physical characteristics, as well as individual planning philosophies and funding approaches to bicycle and pedestrian facilities. This section reviews the differences between the various jurisdictions within Lee County and highlights the conditions in neighboring counties.

Unincorporated Lee County



Exhibit D: Unincorporated Lee County Map

Exhibit E: Unincorporated Lee County Profile

Land Area: 611.6 square miles
 Population: 313,256
 Arterial & Collector Miles: 596
 Arterial & Collector Lane Miles: 1,633
 Paved Shoulder Miles: 123.4
 Bike Lane Miles: 39.7
 Shared Use Path Miles: 109.4
 Sidewalk Miles: 118
 Average Commute: 25 minutes
 Drive or Carpool: 91%
 Walk or Bike: 3%
 Work at Home: 5%

Commute data from US Census

Lee County is an expansive area that includes a variety of urban, suburban, rural, and environmentally protected areas. Bicycle and pedestrian facilities are provided throughout the County, but like many other places, there is a lack of integration. The County has developed a Greenways System Master Plan and provides public information on bike facilities and safety. In 2009, the County Commission adopted the Complete Streets Resolution to integrate bicycle and pedestrian facilities with transportation, land use, climate, energy, and smart growth programs.

- Lee County did not previously designate bike lanes on county-maintained roads. Many roads currently have paved shoulders or striped bike lanes but they are not striped and signed
- Lee County bike lane policy is changing and it will be designating bike lanes on Alico Road, Ben Hill Griffin Parkway/Treeline Avenue and Three Oaks Parkway
- The Lee County BPAC has recommended adding projects to the CIP in support of the proposed Lee Tour de Parks and University Loop demonstration projects identified in this Master Plan
- Metro Parkway extension being constructed by FDOT includes designated bike lanes
- Requires bicycle and pedestrian facilities along identified arterials and collectors
- Sidewalks required on most streets; both sides of arterials and collectors and one side of residential streets
- Expansion of roadways with bike or pedestrian facilities must replicate facilities in new construction
- Provision of bike lanes is at the discretion of the Public Works manager
- Design Standards:
 - Bike Lane – Four feet minimum. May be designated or undesignated
 - Bike Path/Shared-Use Path – No standard provided
 - Sidewalk – 5'-8" on arterials and urban and suburban collectors; five foot on other roadways

Existing Conditions

- Right Turn Lane – Bike Lane location not specified, and location of existing lanes has been inconsistently applied
- Private Development Requirement:
 - New developments are responsible for providing facilities
 - Fee-in-lieu of construction is allowed. LDC being amended to make provisions more transparent and stricter

The County recently adopted (March 1, 2011) its New Horizon 2035 Evaluation and Appraisal Report (EAR). This EAR identifies **four broad categories** that will help guide growth and will affect the provision of bicycle and pedestrian facilities:

Livability

- *Walkable Neighborhoods and Centers*
- *Pedestrian and Bicycle Connected Parks* - develop parks, open and public spaces, and recreational amenities with direct pedestrian and bicycle connections.

Strengthening Connections

- *Connected Neighborhoods and Activity Centers* - strengthen connections within and between neighborhoods and activity centers that feature commercial, civic, employment, and mixed use areas.
- *Complete Streets Design* - evaluate the Complete Streets transportation design approach for roadways, streets, and other public rights-of-way (both new and retrofit of existing streets) to accommodate transit, cyclists, pedestrians, landscaping, and automobiles.
- *A Connected System of Parks, Public Space, Recreation Facilities, and Open Space Resources* - utilize the County's park, public space, and open space resources to connect neighborhoods, commercial areas, activity centers, and public service facilities through an interconnected land use and transportation network.

Community Character

- *Integrated Development* - encourage regional master planning strategies that integrate local land uses together, provide for interconnected neighborhoods, activity centers, and public spaces, and link the local community together through a variety of transportation alternatives.
- *Streetscape Design* - design streets and highways to have a positive impact on community character, including landscaping, street graphics, street cross-sections, and traffic-calming measures.

Sustainability

- *Energy Conservation* - implement standards for energy conservation, including renewable energy resources such as solar and wind energy.

Existing Conditions

City of Bonita Springs



Exhibit F: City of Bonita Springs Map

Exhibit G: City of Bonita Springs Profile

Land Area: 35.3 square miles
 Population: 42,874
 Arterial & Collector Miles: 58
 Arterial & Collector Lane Miles: 184
 Paved Shoulder Miles: 8.4
 Bike Lane Miles: 12
 Shared Use Path Miles: 8.7
 Sidewalk Miles: 30.7
 Average Commute: 24.5 minutes
 Drive or Carpool: 91%
 Walk or Bike: 4%
 Work at Home: 5%

Commute data from US Census

The City of Bonita Springs is located in southeast Lee County, along the boundary with Collier County. Until 2008, planning review in Bonita Springs was provided by Lee County. In 2006, the City amended the Administrative Code to include Bicycle and Pedestrian Facilities.

- Requires bicycle and pedestrian facilities along arterials and collectors
- Roadways to have paved shoulders on both sides
- Provision of bike lanes on roads not identified on the Bicycle/Walkways Facility Plan is at the discretion of the Public Works manager
- Design Standards:
 - Bike Lane – Five feet, may be reduced to four feet if adjacent to specific type of curb and gutter. Designated with signage and pavement marking.
 - Bike Path/Shared-Use Path – Eight feet
 - Sidewalk – Six feet
 - Right Turn Lane – Bike Lane location not specified, except that cannot be placed between a through lane and a continuous right-turn lane that serves multiple access points.
- Private Development Requirement:
 - New developments are responsible for providing facilities
 - Fee-in-lieu of construction is allowed by the LDC; Funds are placed into account and must be used within the same planning community

Existing Conditions

City of Cape Coral



Exhibit H City of Cape Coral Map

Exhibit I: City of Cape Coral Profile

Land Area: 105.2 square miles
 Population: 154,202
 Arterial & Collector Miles: 218
 Arterial & Collector Lane Miles: 735
 Paved Shoulder Miles: 19.2
 Bike Lane Miles: 50.3
 Shared Use Path Miles: 8.5
 Sidewalk Miles: 66.5
 Average Commute: 25.2 minutes
 Drive or Carpool: 95%
 Walk or Bike: 2%
 Work at Home: 3%

Commute data from US Census

The City of Cape Coral is the largest city in Lee County in terms of population and land area and is located on a peninsula bordered by the Caloosahatchee River to the east and Pine Island to the west. The City was originally platted with over 350,000 residential lots along a predominantly gridded street pattern and over four hundred miles of canals. Cape Coral is historically viewed as a bedroom and retirement community; however, recent economic development efforts have significantly increased the amount of commercial development and employment opportunities. The City adopted Bikeway Planning and Design Criteria in 2006.

- Sidewalks are required along public roads for all professional, commercial, mixed use and downtown zoning districts
- Sidewalks required as part of the construction for all new roadways or widening of existing four and six lane roadways
- Bike lanes required in four lane urban sections
- Design Standards:
 - Bike Lane – Four feet. Designated with signage and pavement marking.
 - Bike Path/Shared-Use Path – Eight feet
 - Sidewalk – Six feet
 - Right Turn Lane – Bike Lane placed between the through lane and the right-turn lane. If paved shoulder, then bike lane placed on the right side of the right-turn lane.
- Private Development Requirement:
 - New developments are responsible for providing facilities, excluding existing platted subdivisions
 - Fee-in-lieu of construction is allowed, but no clear direction on how or where funds are to be spent
 - The City has been successful in obtaining grants to retrofit existing streets with sidewalks and bike facilities, including nearly \$3 million in projects scheduled between 2010 and 2014.

Existing Conditions

City of Fort Myers

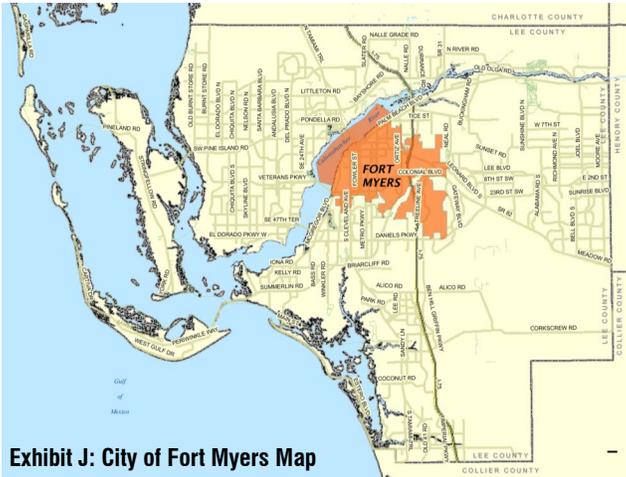


Exhibit J: City of Fort Myers Map

Exhibit K: City of Fort Myers Profile

Land Area: 31.8 square miles
 Population: 64,674
 Arterial & Collector Miles: 83
 Arterial & Collector Lane Miles: 280
 Paved Shoulder Miles: 16.2
 Bike Lane Miles: 10.5
 Shared Use Path Miles: 18.1
 Sidewalk Miles: 42
 Average Commute: 23 minutes
 Drive or Carpool: 90%
 Walk or Bike: 5%
 Work at Home: 2%

Commute data from US Census

Fort Myers is the county seat and economic center of Lee County and is located in central Lee County, between the Caloosahatchee River and I-75. The City has made significant improvements to the historic downtown area in recent years to make it more pedestrian friendly. In 2007, the City adopted the Bicycle and Pedestrian Plan that identifies priority improvements, wayfinding and signage, and implementation strategies.

- Sidewalks are required along both sides of all streets
- New sidewalk locations are given priority if within a half mile of a school or park
- Bike lanes required on all new arterial and collector roads
- Bike lanes on expansion of existing arterial and collector may be required at the discretion of the Public Works Director
- Future improvements focus on expanding existing facilities into connected network
- Design Standards:
 - Bike Lane – Five feet. Designated with signage and pavement marking.
 - Bicycle Trails – Ten feet
 - Bike Path/Shared-Use Path – Ten to twelve feet
 - Sidewalk – Five feet
 - Right Turn Lane – Bike Lane have historically been placed between the through lane and the right-turn lane; however, there is no defined design standard in the LDC.
- Private Development Requirement:
 - New developments are responsible for providing facilities
 - Fee-in-lieu of construction is currently allowed, but is programmed to be removed with future LDC amendment
 - The City has identified numerous grant opportunities to help fund sidewalk and bike facilities
 - The City also utilizes CBDG and CRA funding for street improvements

Existing Conditions

Town of Fort Myers Beach

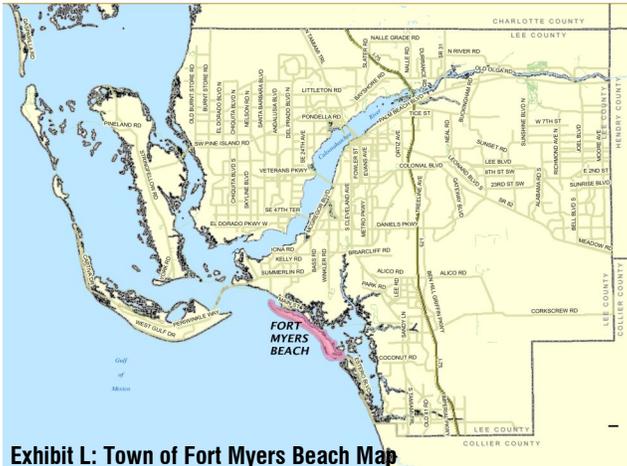


Exhibit L: Town of Fort Myers Beach Map

Exhibit M: Town of Fort Myers Beach Profile

Land Area: 2.9 square miles
 Population: 6,325
 Arterial & Collector Miles: 7
 Arterial & Collector Lane Miles: 15
 Paved Shoulder Miles: 5.1
 Bike Lane Miles: 0
 Shared Use Path Miles: 0.6
 Sidewalk Miles: 6
 Average Commute: 20 minutes
 Drive or Carpool: 79%
 Walk or Bike: 11%
 Work at Home: 3%

Commute data from US Census

Fort Myers Beach is a long narrow island community located in southeast Lee County and is the most densely populated community in Lee County. Estero Boulevard runs the length of the beach and is highly utilized by pedestrians and cyclists. While many of the beach residents work off of the island, the compact community has a significant number of vibrant tourism-related businesses that employ many locals, which makes walking or biking to work a preferred mode of commuting for many people.

- Sidewalks are required along both sides of all major streets
- Bike lanes are not addressed in the LDC, however the proposed improvements to Estero Boulevard include undesignated bike lanes
- Design Standards:
 - Bike Lane – Not addressed
 - Bike Path/Shared-Use Path – Not addressed
 - Sidewalk – Eight to twelve feet in commercial areas; five feet elsewhere
 - Right Turn Lane – Not addressed
- Private Development Requirement:
 - New developments are responsible for providing facilities
 - Fee-in-lieu of construction is not addressed by the LDC

Existing Conditions

City of Sanibel

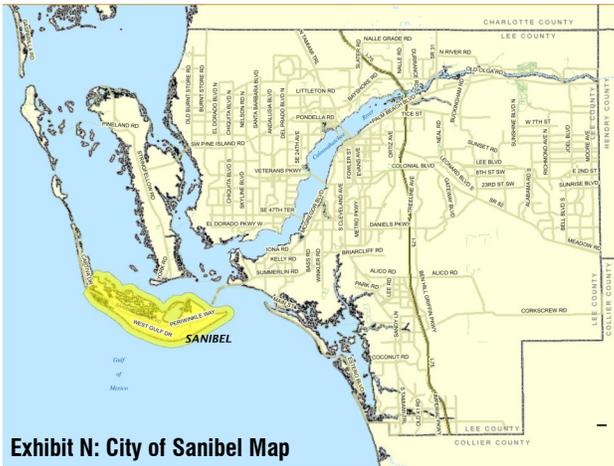


Exhibit N: City of Sanibel Map

Exhibit O: City of Sanibel Profile

Land Area: 17.2 square miles
 Population: 5,577
 Arterial & Collector Miles: 17
 Arterial & Collector Lane Miles: 33
 Paved Shoulder Miles: 0.5
 Bike Lane Miles: 0.1
 Shared Use Path Miles: 23 (inclusive of some local roads)
 Sidewalk Miles: 1.1
 Average Commute: 13 minutes
 Drive or Carpool: 77%
 Walk or Bike: 8%

Commute data from US Census

The City of Sanibel is an island community that has a very significant amount of pedestrian and bicycling activity. The island includes a sophisticated 23 mile shared use path network for bikers and pedestrians. In 2009, the city developed its Shared Use Master Plan that provides recommendations and design standards for the expansion and maintenance of these facilities.

- Sidewalks are not required along public roads in order to minimize impervious surfaces
- Shared-use paths used in place of on-street bike lanes
- Extensive wayfinding and rest area facilities included in pathway system
- Design Standards:
 - Bike Lane – Not provided
 - Bike Path/Shared-Use Path – None provided in LDC, but addressed in Shared Use Master Plan—existing section is between five and ten feet, new sections scheduled to be widened to minimum of eight feet, with portions a minimum of ten feet, subject to available right-of-way and drainage and environmental constraints
 - Right Turn Lane – Not provided, bike paths used in place of bike lanes
- Private Development Requirement:
 - Funding for pathway plan improvements provided by the City
 - Fee-in-lieu of construction is not provided

Existing Conditions

Adjacent Communities

Charlotte County is located to the north of Lee County. Bicycle and Pedestrian facilities are governed through the County's subdivision regulations. Projects are prioritized based on whether it serves a school or park, if it enhances safety or provides a link to existing communities, and on the population density of the area. Bicycle and Pedestrian facilities are required along urban and transition area collector and arterial roads and new development is responsible for providing improvements.

Exhibit P: Charlotte County Profile

Land Area: 693.6 square miles
Population: 156,952
Average Commute: 22.8 minutes
Drive or Carpool: 92%
Walk or Bike: 3%
Work at Home: 5%

Commute data from US Census

Collier County is located to the south of Lee County. In 2006, the County adopted the Comprehensive Pathways Plan Update that identifies Bicycle and Pedestrian facility needs, including design guidelines, funding sources, and the establishment of Bicycle and Pedestrian level-of-service standards. Funding is provided through MPO, FDOT funds, transportation enhancement funds, and the County's payment-in-lieu provisions.

Exhibit Q: Collier County Profile

Land Area: 2,025.3 square miles
Population: 318,537
Average Commute: 23.6 minutes
Drive or Carpool: 88%
Walk or Bike: 5%
Work at Home: 6%

Commute data from US Census

Hendry County is a rural county located to the east of Lee County. In 2009, the County adopted the Comprehensive Pathways Plan that identifies greenway and pathway corridors and trailhead facilities, provides standards and guidelines, as well as implementation strategies. The plan recommends multimodal trails that are a minimum of eight feet wide if unpaved and twelve feet wide if paved. On street bike lanes are encouraged. Funding sources include grants and possible impact fee assessments.

Exhibit R : Hendry County Profile

Land Area: 1,152.5 square miles
Population: 39,594
Average Commute: 30.8 minutes
Drive or Carpool: 85%
Walk or Bike: 3%
Work at Home: 5%

Commute data from US Census

Existing Conditions

Exhibit S: Local Jurisdiction Comparison Table

Does the Local Jurisdiction Have:	Bonita Springs	Cape Coral	Fort Myers	Fort Myers Beach	Sanibel	Lee County*
A Bicycle and Pedestrian Master Plan?	No	No	Yes	No	Yes	No
A map identifying needed bicycle and pedestrian facility needs?	Yes, Bikeways and Pedestrian Ways Plan	Yes	Yes	No, but map of "hidden pathways network"	Yes	Yes, Bikeways Walkways Facilities Plan
Regulations requiring new development to provide bicycle and pedestrian facilities?	Yes, LDC calls for interior facilities along county main-tened streets in residential subdivisions.	Yes, for projects abutting roadways where facilities have been planned or designed	Yes, new development and some redevelopment shall provide sidewalks along front-age	Yes, new development and some redevelopment shall provide sidewalks along front-age	Only for areas adjacent to public rights of way marked for bike paths in the Sanibel Bicycle Pedestrian Plan.	Yes
"Payment in Lieu Contribution" provisions for new develop-	Yes	No	Yes	No	No	Yes
A "Build in Lieu Contribution" provision for new develop-	No	No	No	No	No	No
Bicycle and Pedestrian Accommodation regulations?	LDC requires roadways to have paved shoulders on both sides. All other improvements determined by Bikeways and Pedestrian Ways Plan.	Engineering and Design Standards Sheets show sidewalks on 6 and 4 lane urban sections	All streets required to provide sidewalks on each side of the road. Bike facilities addressed in Master Plan	All major streets must provide sidewalks on each side of the road.	No	The Bikeways Walkways Facilities Plan determines facilities on arterials & collectors. Roadways with paved shoulders or bicycle lanes must ensure continuation when widened (Proposed amdmnt)
Requirements for bike lanes on new roadways	No, at discretion of the public works manager	No, must be evaluated for need	Yes, all new arterials and collector roads require bicycle lanes	No, although proposed Estero Blvd improvements show undesignated bike lanes.	No	No, at discretion of the public works director
Design standard provisions for paved shoulders/bike lane location in context of right turn (RT) lanes	Paved Shoulder: No Bike Lanes: Yes, between thru and RT lane	Paved shoulders: Yes, at right of RT lane Bike lanes: Yes, between the thru and RT lane	Not addressed in LDC; undesignated and designated bike lanes have been placed between thru and RT	Not addressed in LDC.	Not addressed in LDC. Utilize bike paths.	No, placement is inconsistent
Width requirements for shared use paths?	8' standard, 6' constrained	Not provided	Bike path system in LDC refers to bicycle lanes	Does not address bike paths but provides for wide sidewalk (8' to 12')	Bike Path width not provided in Design Standards; 8'-10' identified in Bicycle Pedestrian Plan	Bike path 8' (constrained) to 12' (standard) (proposed amdmnt)

*Adopted Vision 2035 EAR calls for transportation planning changes

Existing Conditions

EXISTING BICYCLE AND PEDESTRIAN NETWORK

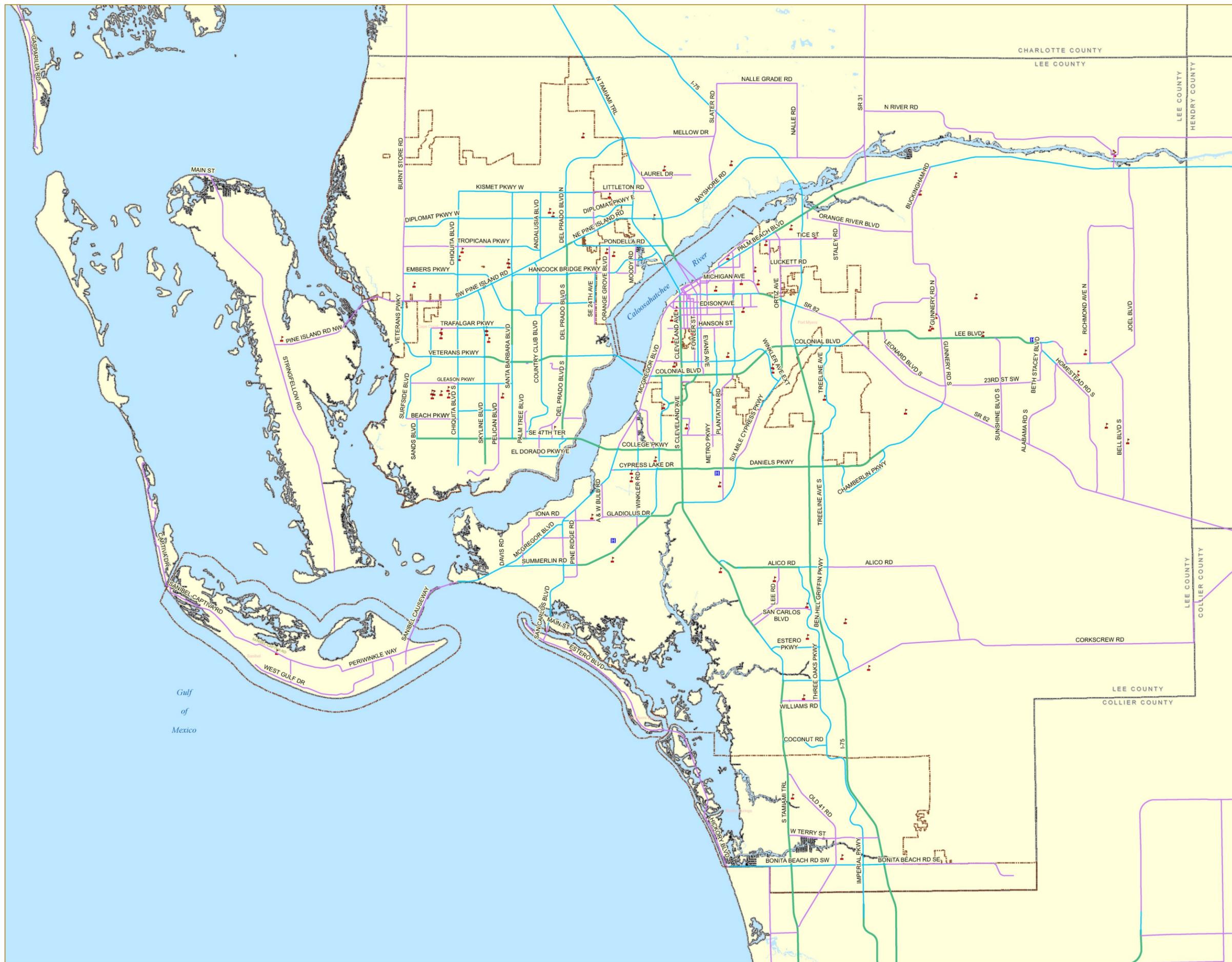
In developing this Master Plan an extensive effort was made to create a unified and standardized GIS database of bicycle and pedestrian facilities within the entire County. Over the last two decades, as the focus and planning for bicycle and pedestrian facilities increased, municipalities, Lee County, and the MPO all began gathering data regarding bicycle and pedestrian facilities within their jurisdiction. However, each jurisdiction used different data collection protocols which led to multiple databases, fragmented information, differing classification terminology, and varying levels of information for each roadway within the County.

As a result, the project team assembled all the existing data, developed a classification system consistent with American Association of State Highway and Transportation Officials (AASHTO) guidelines, filled in information gaps through the use of aerial photography and field reviews, classified all facilities using GIS software, and developed comprehensive maps of bicycle and pedestrian facilities along all collectors and arterials within Lee County.

The facility classification table reflects typical features for facilities found in Lee County, and is based in part on AASHTO Standards. There are many instances where facilities in Lee County do not meet typical width or identifying features described by following table due to right-of-way constraints, drainage and environmental constraints, or local preference. For example, the Sanibel path system includes many segments that are less than 8 feet in width; however, this table should not be interpreted to classify these path segments as sidewalks.

Exhibit T: Facility Classification Table

Facility Type	User Type	Typical Width	Identifying Features
Paved Shoulder	Bike	6 ft. – 10 ft.	Undesignated for Bicycle Use Adjacent to Vehicular Traffic
Wide Curb Lane	Bike	14 ft.	Designated for Multi-Modal Use Shared with Vehicular Traffic
Bike Lane	Bike	4 ft. – 5 ft.	Designated for Bicycle Use Adjacent to Vehicular Traffic
Shared Use Path	Bike / Pedestrian	8 ft. – 12 ft.	Designated for Multi-Modal Use Physically Separated from Vehicular Traffic
Sidewalk	Pedestrian	4 ft. – 8 ft.	Designated for Pedestrian Use Physically Separated from Vehicular Traffic



Legend

Number of Lanes

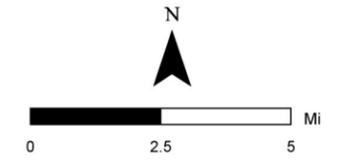
- 2
- 4
- 6
- 8
- 10
- 12

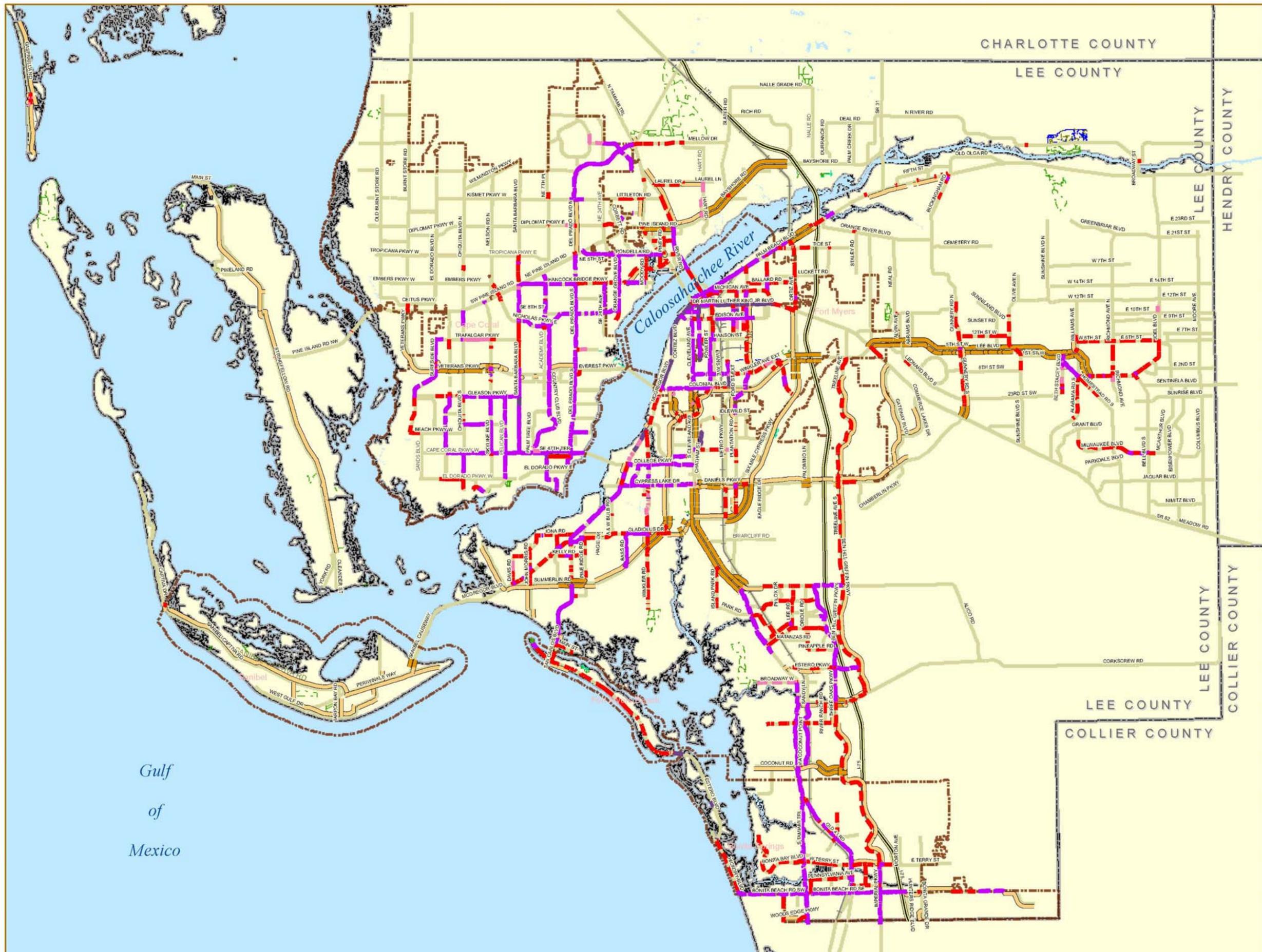
Schools

Hospitals

City Limits

**Exhibit U:
COLLECTOR AND
ARTERIAL ROADWAYS
ELIGIBLE FOR
FEDERAL AID AND
NUMBER OF
LANES AS IDENTIFIED
BY FDOT**





Legend

Sidewalks

- Double Sidewalk
- Sidewalk
- Substandard Double Sidewalk <4'
- Substandard Sidewalk <4'
- Shared Use
- Double Shared Use

Railroads

- I-75
- City Limits
- Collector and Arterial Roads

Lee County Parks and Recreation Trails

- Bike Trail
- Boardwalk
- Hiking Trail
- Horse Trail

**Exhibit V:
INVENTORY MAP
OF PEDESTRIAN
FACILITIES ON
ARTERIAL AND
COLLECTOR ROADS**



LEE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
MASTER PLAN

Gulf
of
Mexico



Legend

Bike

- Undesignated Bike Lane
- Bike Lane
- Paved Shoulder
- Wide Curb Lane
- Shared Use
- Double Shared Use

Railroads

I-75

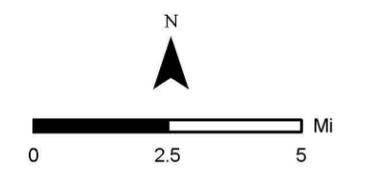
City Limits

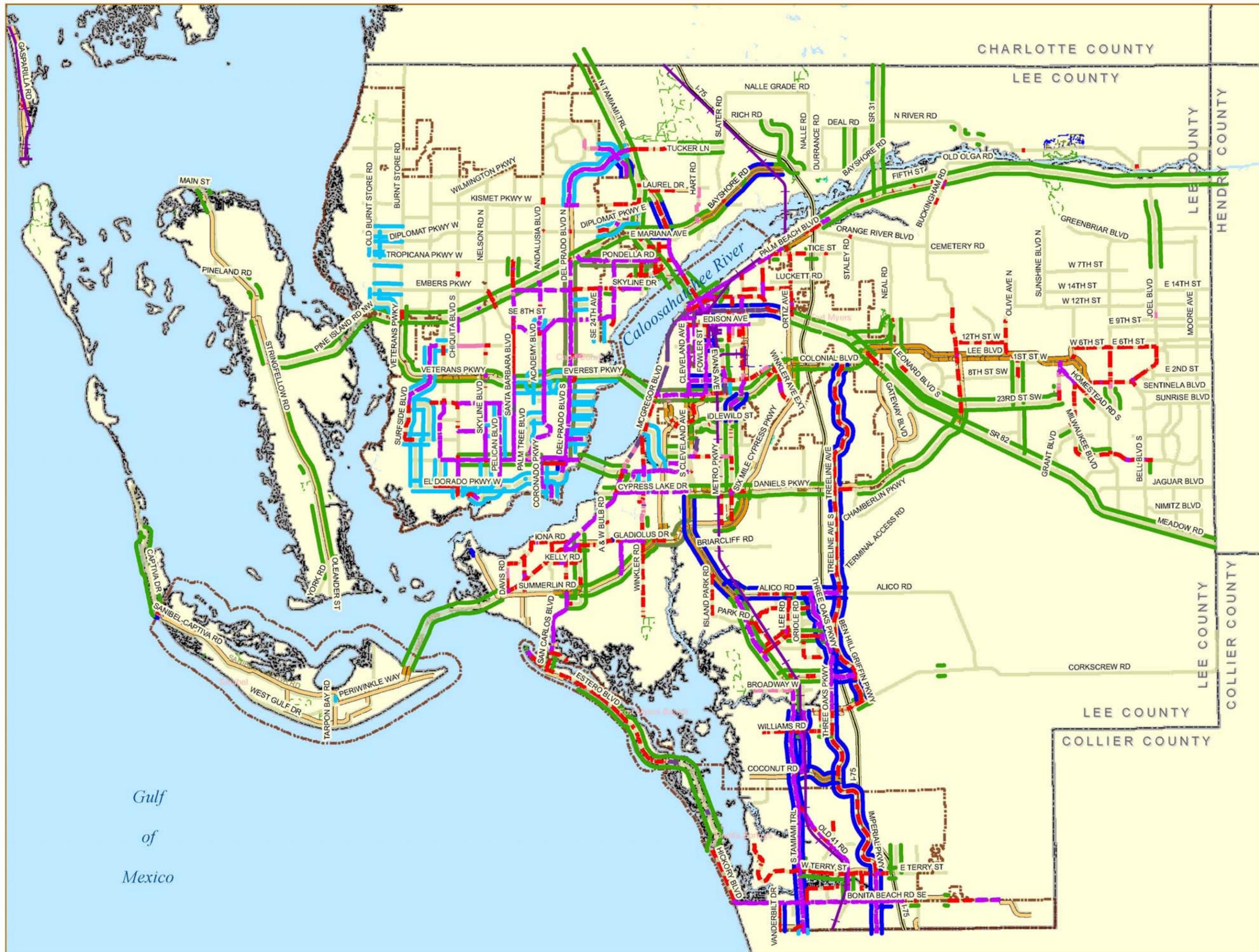
Collector and Arterial Roads

Lee County Parks and Recreation Trails

- Bike Trail
- Boardwalk
- Hiking Trail
- Horse Trail

**Exhibit W:
INVENTORY MAP OF
BICYCLE FACILITIES
ON ARTERIAL AND
COLLECTOR ROADS**

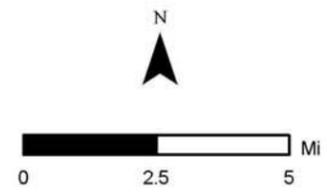




Legend

- Railroads
- Sidewalks
 - Double Sidewalk
 - Sidewalk
 - Substandard Dbl Sidewalk <4'
 - Substandard Sidewalk <4'
- Bike
 - Undesignated Bike Lane
 - Bike Lane
 - Paved Shoulder
 - Wide Curb Lane
- Shared Use
 - Shared Use
 - Double Shared Use
 - I-75
 - City Limits
 - Collector and Arterial Roads
- Lee County Parks and Recreation Trails
 - Bike Trail
 - Boardwalk
 - Hiking Trail
 - Horse Trail

**Exhibit X:
INVENTORY MAP
OF BIKE AND
PEDESTRIAN
FACILITIES ON
ARTERIAL AND
COLLECTOR ROADS**



LEE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
MASTER PLAN

Gulf
of
Mexico

Existing Conditions

Facility Definition Index

Paved Shoulder



“The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use and for lateral support of sub-base, base and surface courses.” – AASHTO, *Guide for the Development of Bicycle Facilities*, 1999.

Recommended Width

4-5 ft. of paved shoulder; total of 8-10 ft including stabilized grassy area – FDOT, *Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways*, 2007.

Wide Curb Lane (Shared Roadway)



“Roadway which is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes, or road with paved shoulders.” – AASHTO, *Guide for the Development of Bicycle Facilities*, 1999

Recommended Width

14 ft. recommended minimum – FDOT, *Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways*, 2007.

Bike Lane



“A portion of a roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.” – AASHTO, *Guide for the Development of Bicycle Facilities*, 1999.

Recommended Width

5 ft. for curbed roadway with parking; 4 ft. for all other conditions – FDOT, *Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways*, 2007.

Existing Conditions

Facility Definition Index

Shared Use Path



“ A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers and other non-motorized users.” – AASHTO, *Guide for the Development of Bicycle Facilities*, 1999

Recommended Width

10 ft. minimum, 12 ft. recommended– FDOT, *Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways*, 2007.

Sidewalk



“The portion of a street or highway right-of-way designed for preferential or exclusive use by pedestrians.” – AASHTO, *Guide for the Development of Bicycle Facilities*, 1999.

Recommended Width

4 ft. minimum; 5 ft. recommended; 6 ft. where sidewalk is adjacent to curb – FDOT, *Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways*, 2007.

Source of facility photographs: www.pedbikeimages.org

Existing Conditions

Exhibit Y: Facility Coverage Table

Name	Arterial & Collector Network Miles	Bike Facilities				Pedestrian Facilities		% of Network Miles w/ Bike Facilities	% of Network Miles w/ Pedestrian Facilities
		Paved Shoulder Miles	Wide Curb Lane Miles	Bike Lane Miles	Shared Use Path Miles	Shared Use Path Miles	Sidewalk Miles		
Lee (Unincorporated)	596	123.4	3.7	39.7	109.4	109.4	118	46.3%	38.2%
Bonita Springs	58	8.4	0	12	8.7	8.7	30.7	50.3%	67.9%
Cape Coral	218	19.2	7.5	50.3	8.5	8.5	66.5	39.3%	34.5%
Fort Myers	83	16.2	0.9	10.5	18.1	18.1	42	55.1%	72.4%
Ft. Myers Beach	7	5.1	0	0	0.6	0.6	6	81.4%	94.3%
Sanibel*	17	0.5	0	0.1	15.2	15.2	0.1	92.9%	90.0%
Total	979	173	12	113	161	161	263	46.8%	43.3%

Notes:

Shared Use Paths are classified as both bike and pedestrian facilities in this Table. There are rights-of-way in Lee County which include both shared use paths and one or more other types of bike or pedestrian facilities. Therefore, the percentage of arterial & collector network miles w/ bike and pedestrian facilities may be inflated.

Percentage coverage figures do not distinguish between segments with facilities on one side of the road versus segments with facilities on both sides. Coverage figures should be assessed in conjunction with facility inventory maps to obtain an accurate picture of network quality.

*The facility figures presented within this table are only for collectors and arterials. Sanibel, for example, has 23 miles of shared-use paths when including all roadways.

BICYCLE AND PEDESTRIAN SAFETY

What factors affect a person's decision whether drive a car, take the bus, ride a bike or walk? Would one consider the length of the trip, the time of travel, the associated costs associated (fuel, fare, etc.), their comfort and quality of the various facilities? Of course one would consider such factors, but, above all else, one's sense of safety is going to affect how they get to the places that they go. Bicyclist and pedestrians should be allowed to feel safe commuting in Lee County.

Sense of safety is a personal quality. Gender, age, physical condition, socio-economic condition, the time of day, and other individual characteristics affect one's sense of safety. However, personal factors do not overshadow the facts. So, are bicycling and walking safe alternatives in Lee County?

Exhibit Z: Pedestrian Crash Fatalities Per Capita Table

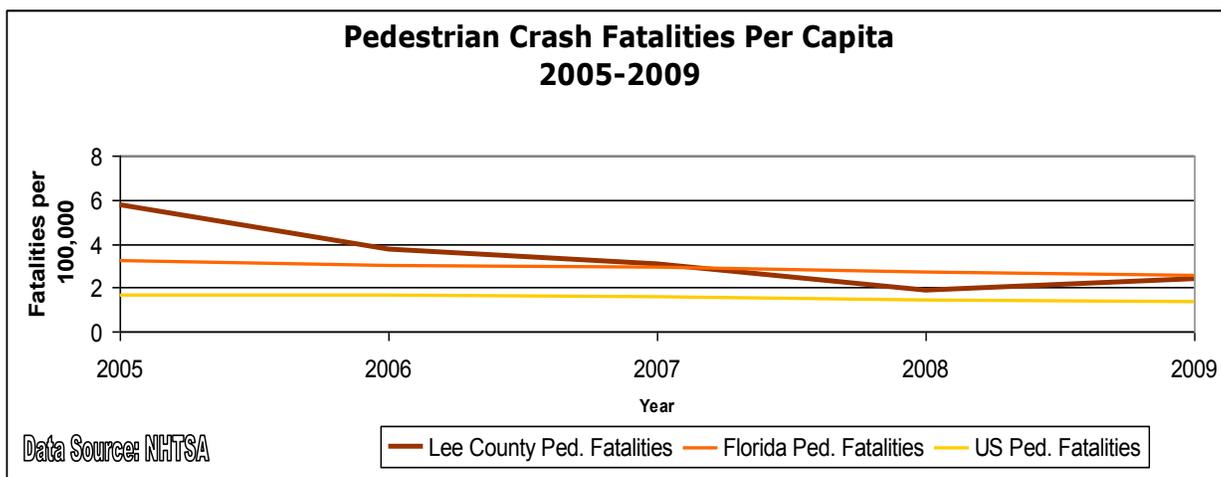
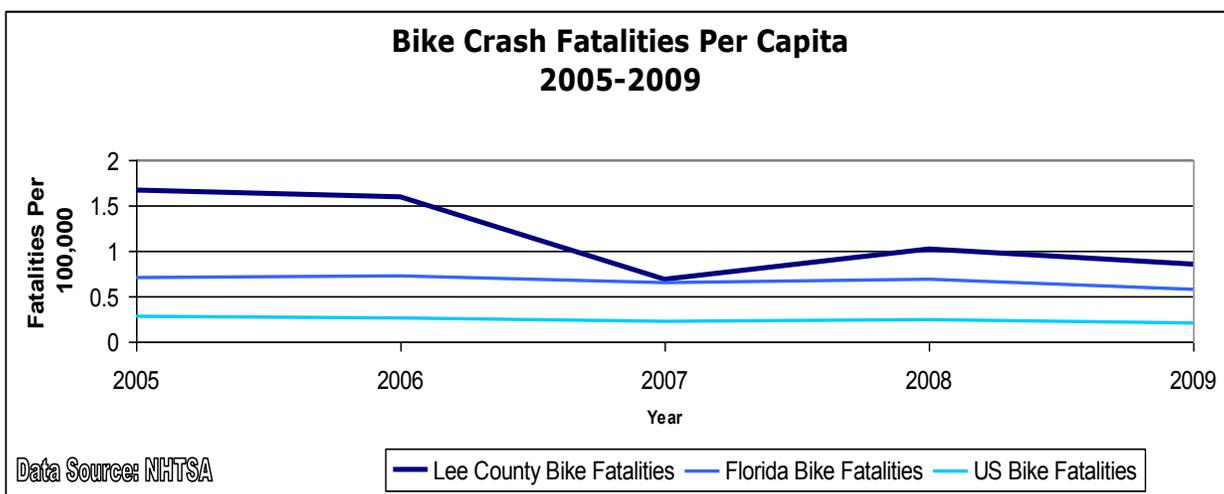


Exhibit AA: Bicycle Crash Fatalities Per Capita Table



Identified Bicycle & Pedestrian Issues

2009 per capita fatality statistics from the USDOT National Highway Traffic Safety Administration (NHTSA) demonstrate that Florida is the most dangerous state for both pedestrian and cyclists. Statewide, Lee County ranked 15th of 67 counties in Florida in total pedestrian crash fatalities per capita from 2005-2009. Lee County ranked 16th in bicyclist fatalities over the same four year period. These statistics indicate that, based on fatality rates over the last four years, Lee County ranks in the bottom 25% of Florida counties for bike and pedestrian safety. It should be noted that there is no standard methodology at the local or national level for how bicycle and pedestrian safety data is collected, which makes jurisdiction comparisons difficult. Regardless, the safety figures for Florida and Lee County suggest that safety improvements can, and should, be made to bicycle and pedestrian facilities.

Research has linked everything, from weather and visibility to alcohol consumption and speed limits, to bicycle and pedestrian fatality rate. The fact is that all sorts of conditions can contribute to fatal crashes. There are however several leading factors in fatal crashes. Higher crash fatality rates result when several of these key factors and risks are compounded.

Intersections require accommodations for the safety of bicyclists, pedestrians and other users. But it's not just intersections, other places that may create confusion or confluences of traffic are important, too. In 2008 for example, most pedestrian fatalities in the U.S. occurred in urban areas (72%) and at non-intersection locations (76%). Similarly, most bicyclist fatalities occurred in urban areas (69%) and at non-intersection locations (64%).

Two of the most common factors for bicycle and pedestrian fatalities are:

- 1) failure to yield right of way (by a bicyclist, pedestrian or motorist)
- 2) improper crossing of roadway or intersection by the bicyclist or pedestrian.

These two factors combined were identified in 43.1% of pedestrian fatalities and 29.9% of bicyclist fatalities on Florida roadways in 2009. Factors like these, related to driver decisions and actions, are called "human error" factors.

Law enforcement, education and improved signalization can raise user awareness and help to reduce the influence of human error factors. But in many places users of different transportation modes are forced to share facilities that were not designed or are not suitable for both modes. Users share unsuitable facilities more often when safe, properly designed facilities are not available .

DID YOU KNOW?

The first automobile crash in the United States occurred in New York City in 1896, when a motor vehicle collided with a bicycle rider.

(Famous First Facts, by Joseph Kane)

Identified Bicycle & Pedestrian Issues

Exhibit BB: Factors In Bicyclist Fatalities Table

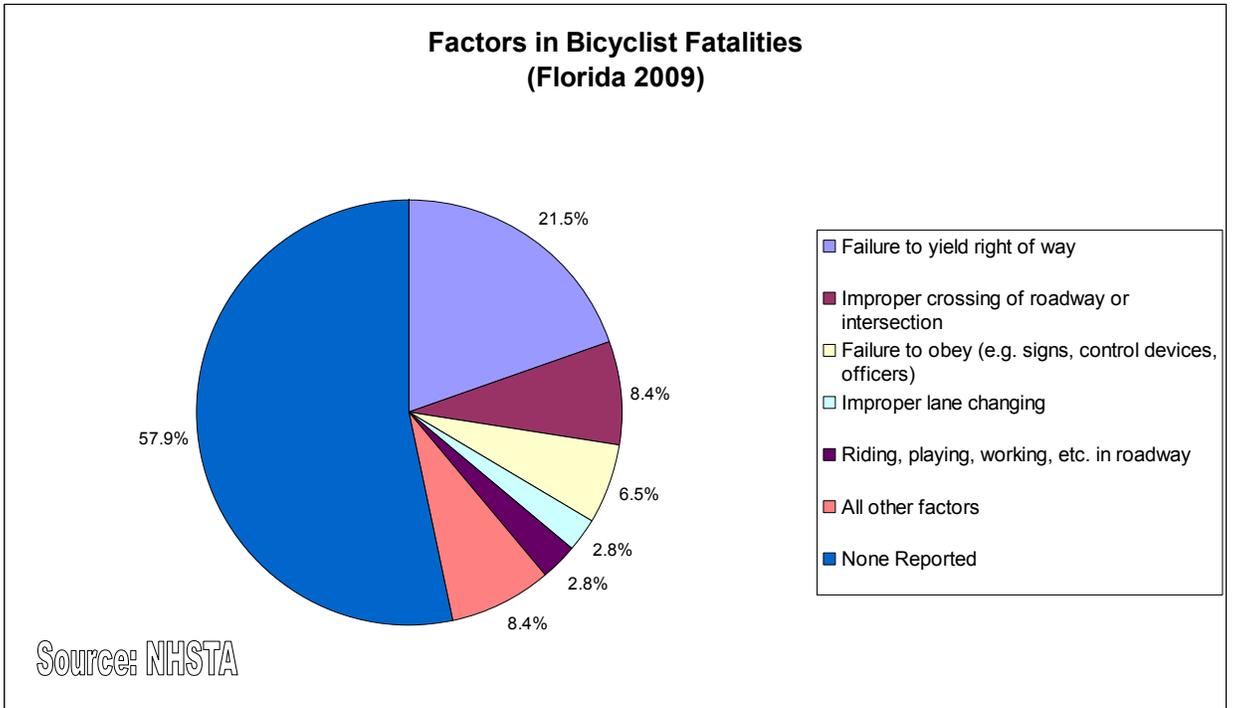
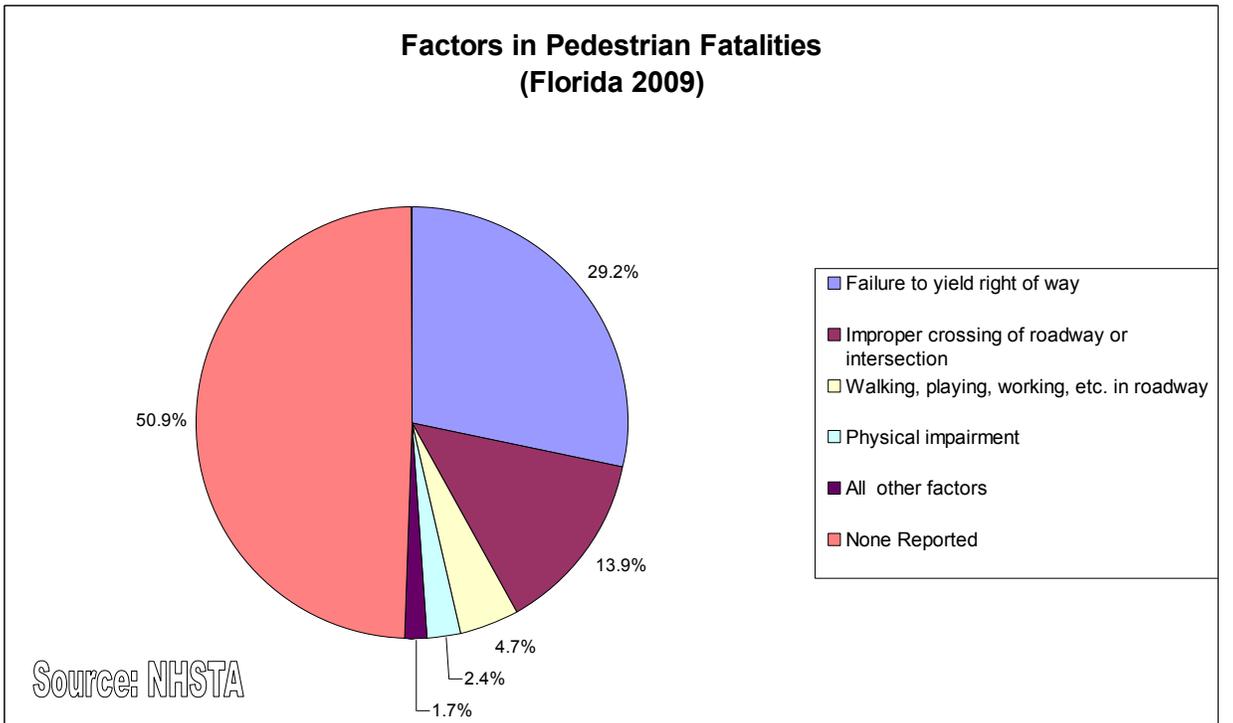


Exhibit CC: Factors In Pedestrian Fatalities Table



Note: NHSTA tables do not identify party at fault— i.e. motorist or pedestrian/cyclist

Identified Bicycle & Pedestrian Issues

Protecting bicycle and pedestrian safety relies on providing quality bicycle, pedestrian, and vehicular facilities which encourage separation, respect and awareness among the various modes of transportation. Without connected, safe, and identifiable bicycle and pedestrian systems, people will continue to put themselves and others in harm's way by using the roadways improperly and unsafely. The Lee County MPO by promoting the master bike and pedestrian plan can help to stem the loss of life on our local roadways.

Exhibit DD: Lee County Crash Data Table

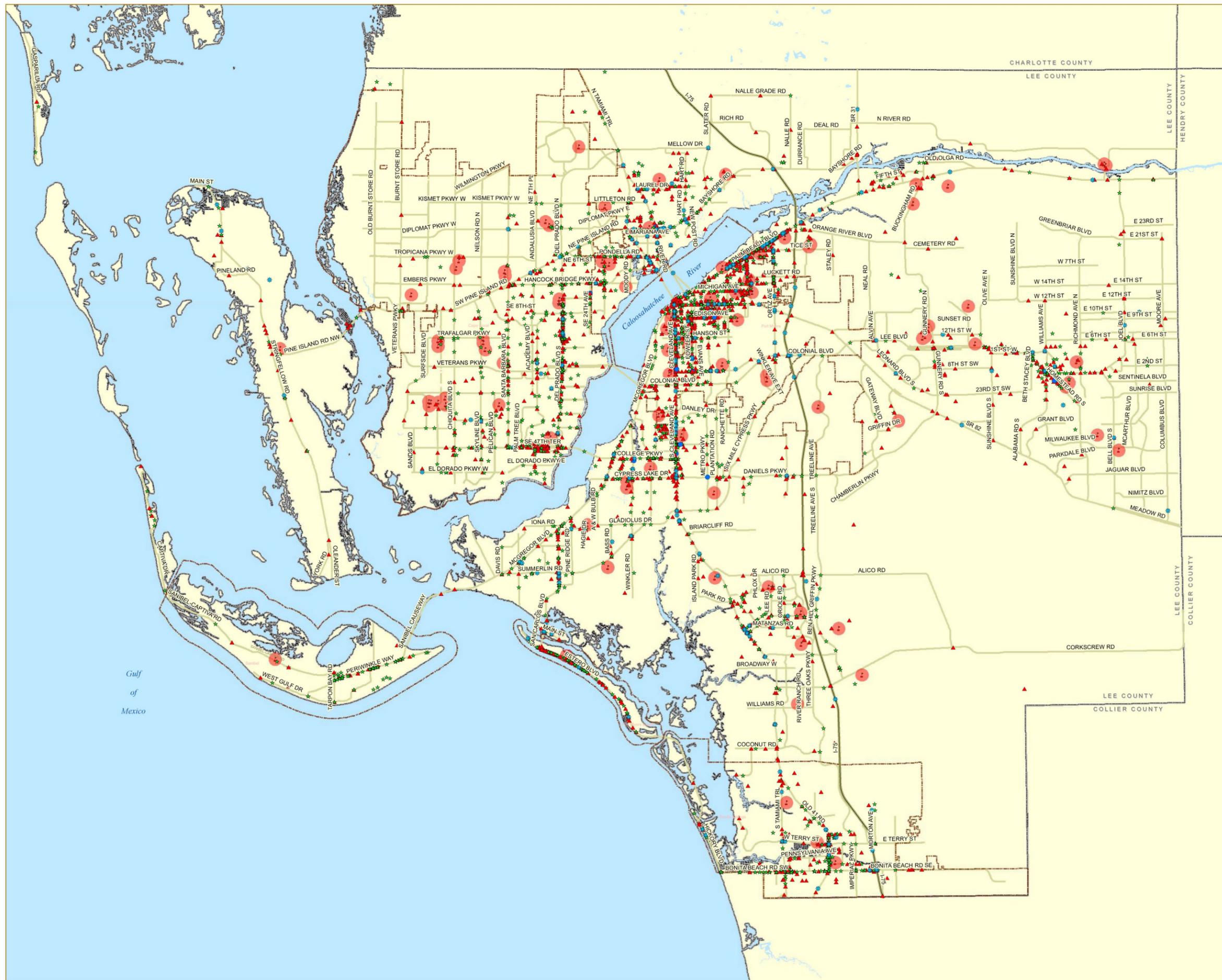
Year	Ped. Total	Ped. Fatal	Ped. Injury	Bike Total	Bike Fatal	Bike Injury	Total	Fatal Total	Injury Total
1998	173	11	162	139	5	134	312	16	296
1999	210	18	192	129	7	122	339	25	314
2000	213	21	192	128	3	125	341	24	317
2001	180	16	164	130	4	126	310	20	290
2002	189	11	178	140	7	133	329	18	311
2003	237	18	219	142	4	138	379	22	357
2004	226	10	216	136	6	130	362	16	346
2005	256	32	224	92	9	83	348	41	307
2006	199	23	176	85	7	78	284	30	254
2007	249	19	230	96	4	92	345	23	322
2008	203	11	192	104	6	98	307	17	290
2009	205	15	190	110	4	106	315	19	296
Total	2,540	205	2,335	1,431	66	1,365	3,971	271	3,700

Source: Florida Department of Highway Safety and Motor Vehicles

Exhibit EE: Florida Crash Data Table

Year	Ped. Fatal	Ped. Injury	Ped. Crashes	Bike Fatal	Bike Injury	Bike Crashes	Fatal Total	Injury Total	Crash Total
2005	576	7,975	8,626	119	4,515	4,895	695	12,490	13,521
2006	546	7,754	8,346	126	4,266	4,611	672	12,020	12,957
2007	530	7,529	8,139	121	4,347	4,847	651	11,876	12,986
2008	502	7,878	8,471	118	4,428	4,775	620	12,306	13,246
2009	482	7,676	8,248	100	4,425	4,774	582	12,101	13,022
Total	2,636	38,812	41,830	584	21,981	23,902	3,220	60,793	65,732

Source: Florida Department of Highway Safety and Motor Vehicles

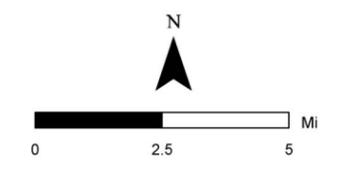


Legend

- ★ Bike and Pedestrian Fatal Events (2000-2009)
- ▲ Schools
- Bike and Pedestrian Crashes (2000-2010)**
- ★ Bike
- ▲ Pedestrian
- Wheelchair
- < 1/4 Mi. from School
- City Limits
- Collector and Arterial Roads

Exhibit FF:

BICYCLE AND PEDESTRIAN CRASHES AND FATALITIES



Identified Bicycle & Pedestrian Issues

ACCESS

No matter what the mode of travel, every trip begins with a pedestrian. Therefore, it is paramount that appropriate pedestrian and bicycle facilities be provided. A transportation system is only as successful as one's ability to get to it whether by foot, bicycle, or wheelchair. In general, there could be good pedestrian and bicycle amenities in neighborhoods, but it only takes one missing ramp to make the connection inaccessible to people with disabilities, or one missing sidewalk to prevent an elderly person from reaching the nearest transit stop.

Lee County is a large land area comprised of urban, suburban and rural areas. Providing a bicycle and pedestrian network access to all communities in Lee County is essential. An important component of an effective network is linking population centers and providing bicycle and pedestrian access to public transit.

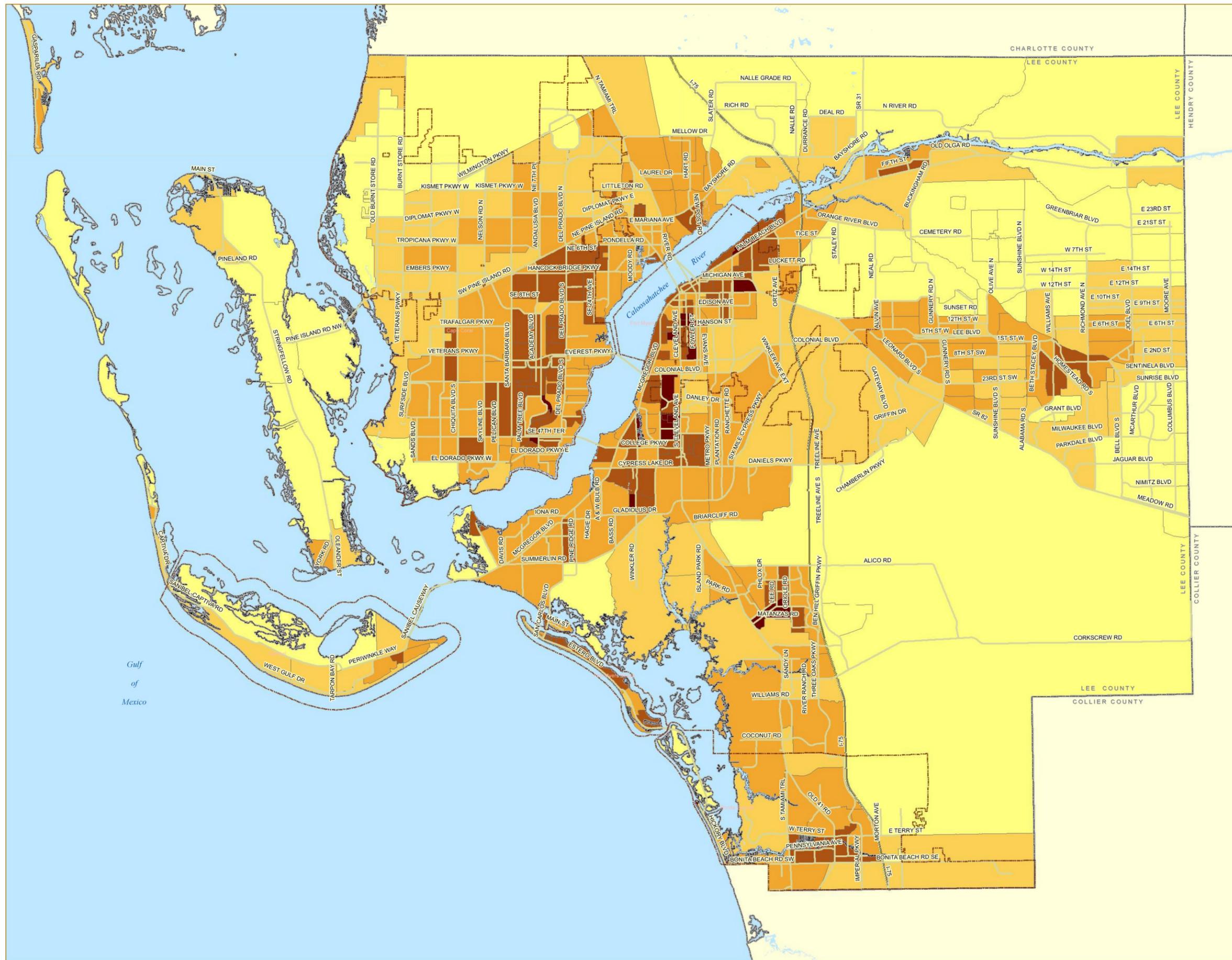
CONNECTIVITY

An effective bicycle and pedestrian network should allow users to get from point A to point B effectively. It should interconnect communities, link points of interest, employment hubs, park and recreation areas, schools, hospitals, civic centers, government building, and major shopping areas.

Unfortunately, suburban development patterns in Lee County have created mobility challenges for all users, but especially pedestrians and bicyclists. Suburban development deliberately disconnects developments and land uses from one another by gated entries, landscaping, berms, and a lack of sidewalks. Isolated developments that limit access onto major roads create a disconnected street network that prevents people from "passing through." The result is a sparse network of streets that often lacks connectivity.

FACILITY GAPS

Currently there is a significant amount of bicycle and pedestrian facilities throughout Lee County; however, these facilities are fragmented, and inconsistent. Facility gaps often discourage individuals from biking or walking. These gaps create unsafe conditions as pedestrians and cyclists are forced to walk or bike where appropriate facilities are not provided, often times resulting in additional conflict points with motorists. In addition to actual gaps in a network, the perception of gaps can be a significant deterrent for many individuals considering biking or walking to a certain destination. Maps JJ-LL identify all pedestrian and bicycle facility gaps on collectors and arterials within the County. It should be noted that these gaps include both segments where there are no facilities whatsoever and segments where there are facilities on just one side of the road. The only exception to this is Sanibel. Through its master plan, Sanibel has identified all existing and planned facilities and has opted to provide shared-use paths on one side of the roadway for most of its network. Acknowledging this, the gaps on Sanibel are comprised of segments where no bicycle or pedestrian facility is provided on either side of the road.



Legend

Population per Square Mile by Block Group

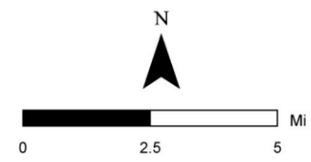
- 0 - 300
- 301 - 1000
- 1001 - 3000
- 3001 - 6000
- 6001 - 15000

City Limits

Collector and Arterial Roads

Exhibit GG:

POPULATION PER SQUARE MILE BY BLOCK GROUP



LEE COUNTY MPO
METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
MASTER PLAN

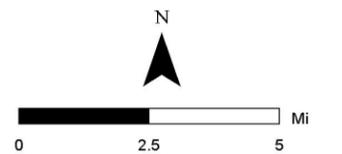


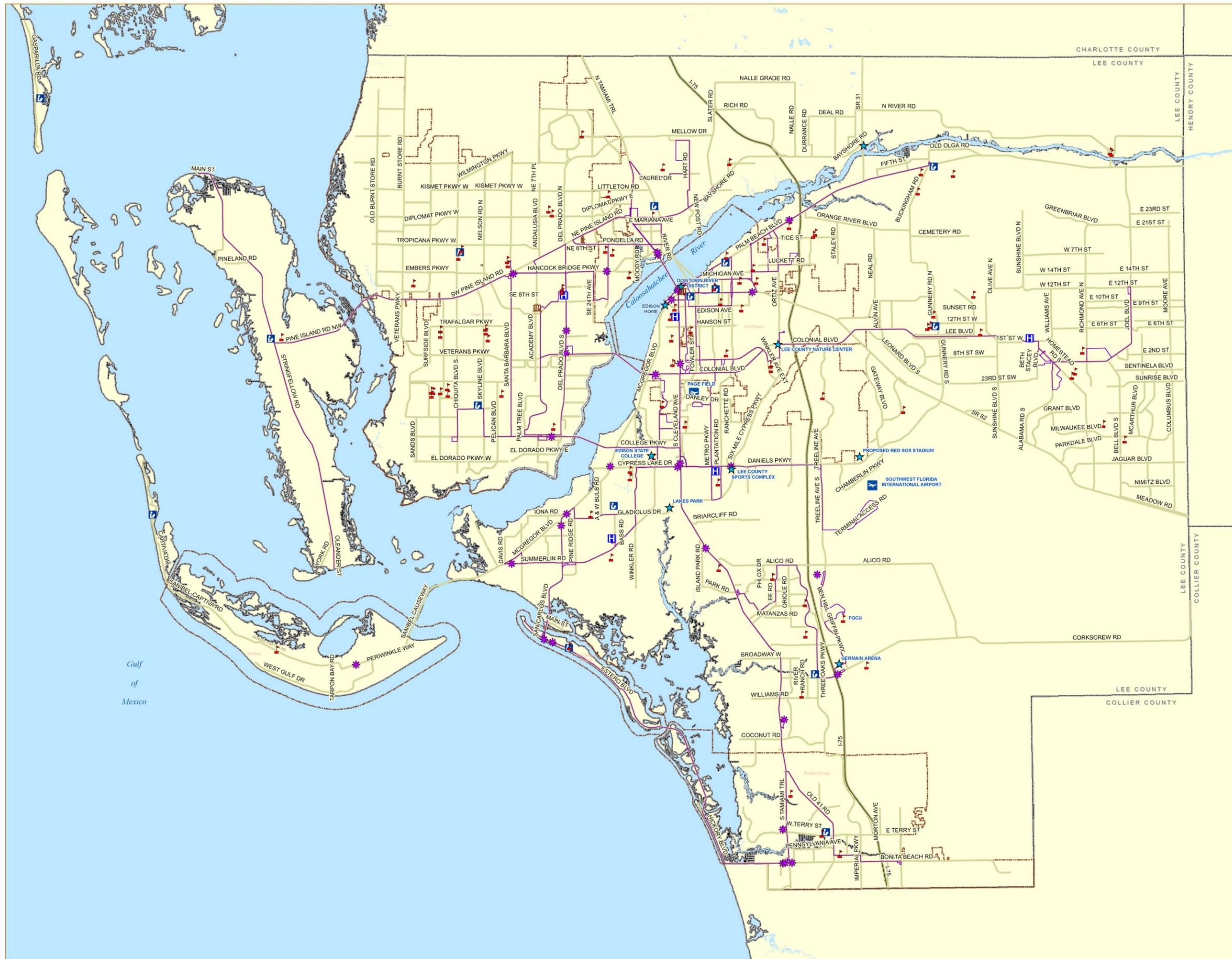
Legend

- Schools
- Hospitals
- Bus Stops
- Airports
- Lee Tran Bus Routes
- City Limits
- Collector and Arterial Roads

Exhibit HH:

LEE TRAN BUS STOPS AND ROUTES



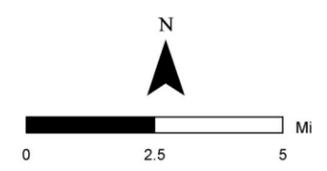


Legend

- Airports
- Government Office
- Points of Interest
- Schools
- Libraries
- Major Shopping Centers
- Hospitals
- Lee Tran Bus Routes
- Collector and Arterial Roads
- City Limits

Exhibit II:

BICYCLE AND PEDESTRIAN ATTRACTORS



LEE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
MASTER PLAN

Identified Bicycle & Pedestrian Issues

CONTINUITY/REGIONAL ROUTES

A variety of users utilize bicycle and pedestrian facilities - for commuting, recreation or fitness. For many, especially those that use the facilities for recreation and fitness, it is important to have long, continuous routes that connect communities and regional destinations such as parks, beaches, and wilderness areas.

FACILITY OPTIONS/DIVERSITY

Just as there are numerous types of bicycle and pedestrian users with varying levels of ability, a comprehensive and effective bicycle and pedestrian network should provide a variety of facility options. For example many recreational users prefer riding on shared-use pathways; however, commuters and fitness riders prefer riding on the road. These riders are experienced cyclists and are comfortable sharing the road with motor vehicles. For them designated bike lanes and paved shoulders are ideal. Likewise, right-of-way, engineering, and financial constraints may warrant different facilities in different circumstances.

Therefore, an effective network should provide numerous options and select the most appropriate facility type for the given situation.

BRIDGES AND OVERPASSES

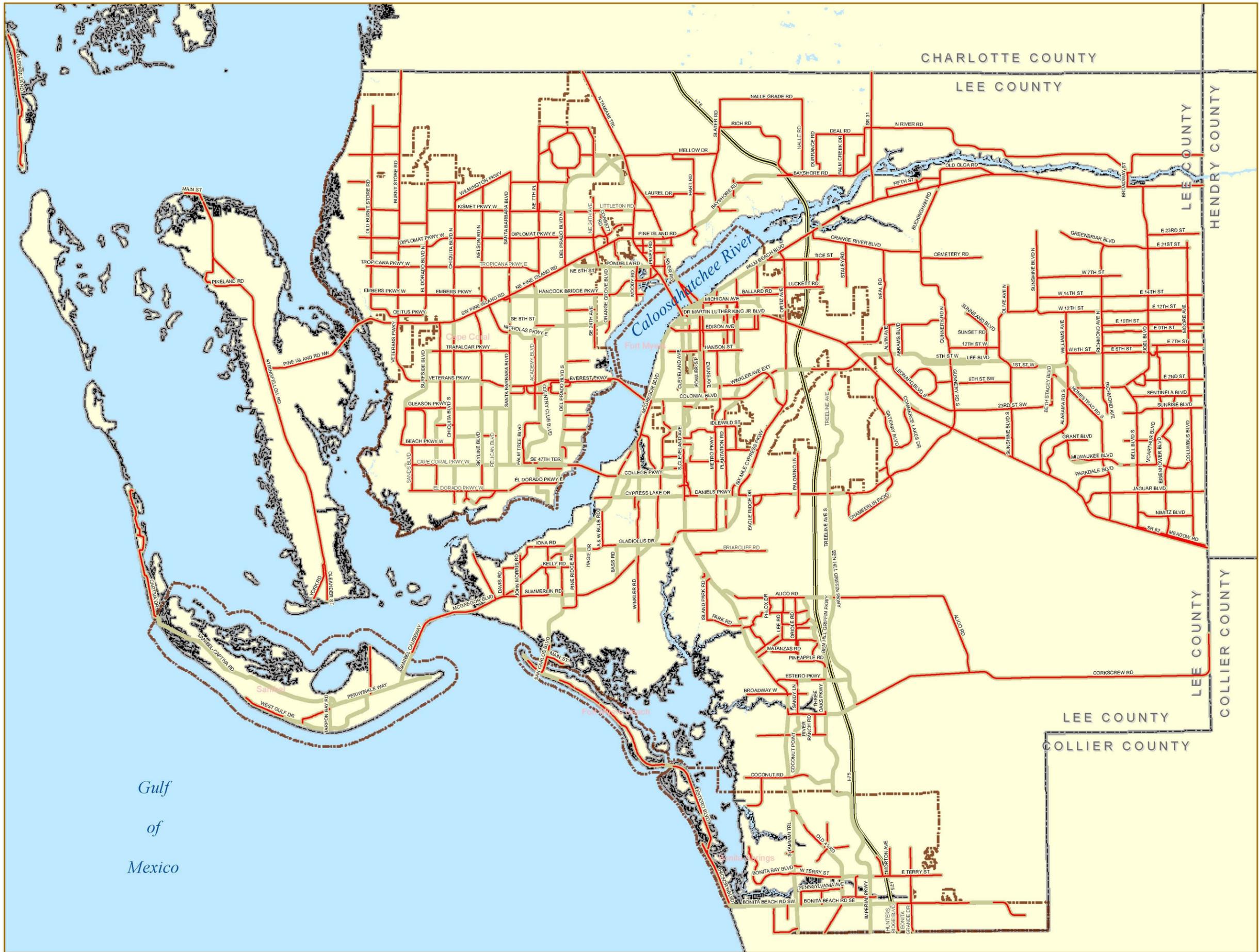
Bridges and overpasses can create access problems and hazardous conditions for bicyclists and pedestrians if they are not designed to accommodate non-vehicular travel. This is especially significant for Lee County since it is bisected by the Caloosahatchee River and it is home to several barrier island communities. Most of the existing bridges in Lee County are older structures that were built at a time when pedestrian and bicycle accommodations were not considered a priority. These existing bridges and overpasses typically lack the needed space to provide room for cyclists and pedestrians. These deficiencies are usually corrected when bridge replacement occurs, but given the considerable number of bridges in the County and the substantial mobility impacts they pose, creative design solutions and bridge extensions should be considered. The Caloosahatchee and Big Carlos Pass Bridges are in the Cost Feasible Plan, so bicycle and pedestrian facilities need to be built when those bridges are rebuilt or replaced.

FACILITY DESIGN

Bicycle and pedestrian facilities are not consistently designed and constructed throughout the County. Design standards vary from community to community and the standards currently utilized may not be consistent with today's best practices. Additionally, many existing facilities may not meet Americans with Disabilities Act (ADA) standards.

While required standards should reflect a community's needs and desires, it is recommended that every community review and update their bicycle and pedestrian facility standards and attempt to be consistent with the AASHTO guidelines (*Guide for the development of Bicycle Facilities & Policy on Geometric Design of Highways and Streets*), as well as recent changes to the Manual on Uniform Traffic Control Devices (MUTCD) and FDOT's Greenbook, which has recently been amended to include a new chapter (Chapter 19) about Traditional Neighborhood Design. This chapter provides standards and recommendations for developing roadways and communities that are more walkable and livable.

Signage and the provision of amenities, such as rest areas and bike racks, are also components of facility design that should be addressed within a community's design standards. High quality facilities that provide excellent amenities, signage, and wayfinding will significantly improve a users experience and will encourage greater use of that facility.



Legend

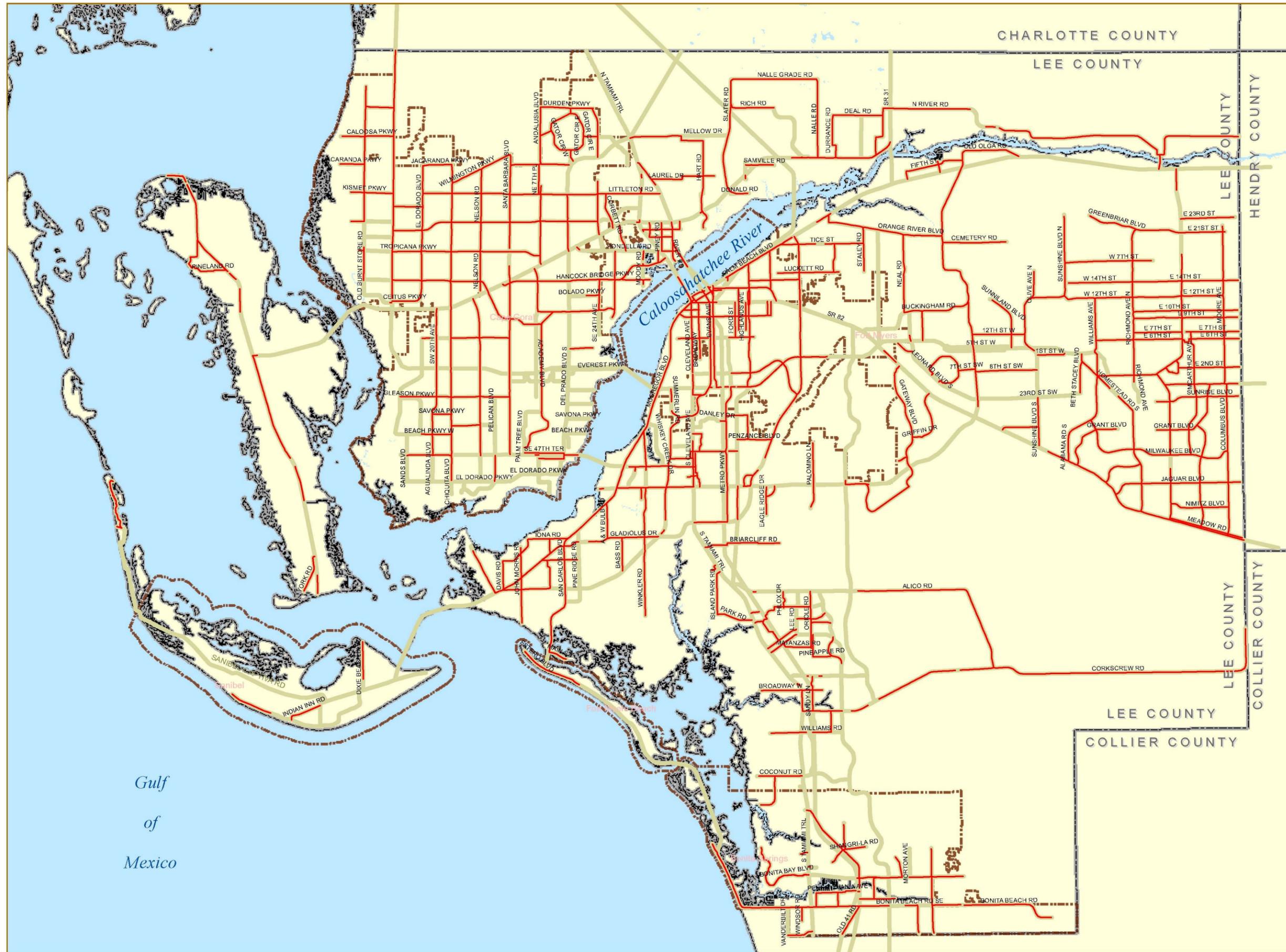
- Pedestrian Gaps
- Collector and Arterial Roads
- I-75
- City Limits

**Exhibit JJ:
PEDESTRIAN
FACILITIES
GAPS ON
ARTERIAL AND
COLLECTOR ROADS**



Gulf
of
Mexico


 METROPOLITAN PLANNING ORGANIZATION
LEE COUNTY MPO
BICYCLE PEDESTRIAN
 MASTER PLAN



Legend

- Bike Gaps
- Arterial and Collector Roads
- City Limits

**Exhibit KK:
BIKE FACILITIES
GAPS ON
ARTERIAL AND
COLLECTOR ROADS**



Gulf
of
Mexico

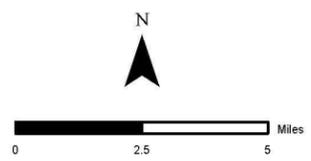


Legend

- Bike and Pedestrian Gaps
- Primary Network
- Secondary Network
- I-75
- City Limits

**Exhibit LL:
BIKE AND
PEDESTRIAN
FACILITIES
GAPS ON
ARTERIAL AND
COLLECTOR ROADS**

Gulf
of
Mexico



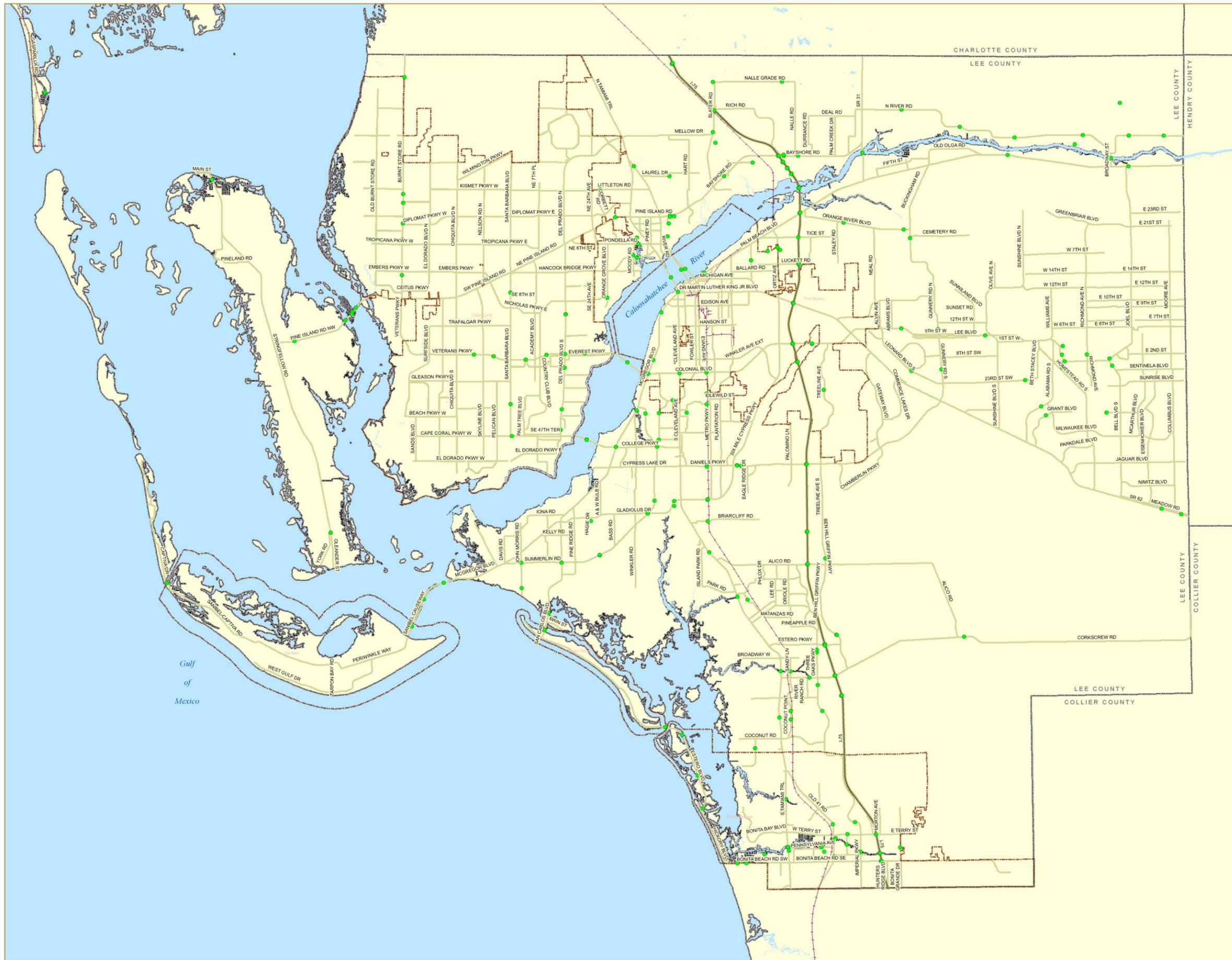
LEE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
MASTER PLAN

Exhibit: MM

	Locally Maintained	County Maintained	State Maintained	Other*	Total Linear Miles	% of Total Gaps
BONITA SPRINGS						
Bicycle Gaps	17.14	10.03	0.43	8.61	36.20	5.42%
Pedestrian Gaps	16.97	8.72	0.00	8.87	34.57	4.56%
CAPE CORAL						
Bicycle Gaps	130.39	11.48	0.00	0.00	141.87	21.23%
Pedestrian Gaps	139.68	18.26	9.85	0.00	167.80	22.13%
FORT MYERS						
Bicycle Gaps	31.62	12.95	17.59	0.25	62.40	9.34%
Pedestrian Gaps	18.66	12.19	15.09	0.46	46.40	6.12%
FORTMYERS BEACH						
Bicycle Gaps	0.86	1.39	0.00	0.00	2.26	0.34%
Pedestrian Gaps	0.68	5.04	0.34	0.00	6.06	0.80%
SANIBEL						
Bicycle Gaps	21.78	0.00	0.00	0.00	21.78	3.26%
Pedestrian Gaps	21.89	0.70	0.00	0.00	22.58	2.98%
UNINCORPORATED LEE COUNTY						
Bicycle Gaps	1.53	354.67	33.94	13.52	403.66	60.41%
Pedestrian Gaps	1.59	401.73	64.30	13.21	480.82	63.41%
LEE COUNTY						
Bicycle Gaps	203.32	390.52	51.95	22.38	668.18	100%
Pedestrian Gaps	199.47	446.64	89.58	22.54	758.23	100%

*privately built roads not yet turned over or designated

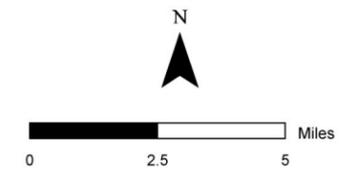


Legend

- County and State Maintained Bridges
- I-75
- City Limits
- Railroads
- Collector and Arterial Roads

Exhibit NN:

COUNTY AND STATE MAINTAINED BRIDGES



Identified Bicycle & Pedestrian Issues

INTERSECTION/SPOT IMPROVEMENTS

As part of the development of this master plan the public was given the opportunity to identify problem areas. BikeWalkLee held a public information gathering at Lakes Park in the spring of 2010, and participants were asked to identify needed improvements and areas of concern on a map. Not surprisingly, many of the areas identified were intersections where opportunities for conflict are numerous. Intersection problems come in numerous forms – intersection design and construction deficiencies, pedestrian and cyclist conflicts with motorized vehicles, and signalization problems.

In addition to intersection conflict, spot improvements can include a poorly maintained area where debris is located in a facility, localized poor surface conditions, burnt out lights, or vegetation encroaching onto a facility.

HIGH VOLUME, HIGH SPEED ROADS

The overall treatment of streets within Lee County results in motor vehicles travelling at fairly high speeds during most of the day. There are several reasons why speeds are relatively high throughout the County. Most of the street systems were developed to support suburban development patterns with the majority of trips being made on the arterial system. Those arterials are created with a design that is intended to allow vehicles to move quickly, with little delay, and at as high a speed as is practical. The design of these arterial streets accomplishes this in several ways:

- On-street parking is not allowed, reducing friction to through moving traffic.
- Buildings are set back significantly from the roadway so there is no sense of enclosure, which increases the drivers' comfort with faster speeds.
- Signal spacing for arterials is typically set at a minimum of 1,320 to 2,640 feet, which tends to increase speeds since the focus is on moving cars quickly through the corridor, typically at 45 mph.
- Wide roadway cross-sections and travel lanes cause drivers to feel comfortable driving at speeds above the speed limit.
- Four and six-lane cross-sections combined with multiple dedicated turn lanes create very large intersections where pedestrians and bicyclists are not comfortable crossing.
- Access management is an important treatment to reduce the potential for conflicting movements, and can enhance vehicle safety. The down side is that highly controlled access also allows drivers to feel more comfortable driving faster due to the reduced points of vehicle access to the corridor.

These high speed roads create an uncomfortable and less safe environment for cyclists and pedestrians. The net result is that people will not walk unless they have no other choice, and if cyclists are present, they often utilize the sidewalks due to a lack of bike lanes or discomfort with the high speeds on the roadway. Adopting complete street principles, reclassifying existing roads and implementing traffic calming and "road diet" measures can help address this existing condition resulting from these high volume, high speed roads.



Legend

Areas of Concern

- MAINTENANCE
- NO FACILITIES
- OPERATIONS
- DESIGN

Railroads

John Yarbrough Linear Park

Lee County Parks and Recreational Trails

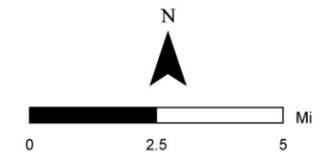
I-75

City Limits

Collector and Arterial Roads

Exhibit 00:

ISSUES IDENTIFIED BY THE PUBLIC



LEE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
MASTER PLAN

Identified Bicycle & Pedestrian Issues

COMPLETE STREETS AND LIVABILITY

As mentioned at the onset of this report, Lee County has adopted a Complete Streets initiative. According to the National Complete Streets Coalition, the term “Complete Streets” was coined in 2003 and is defined as “roadways designed and operated to enable safe, attractive, and comfortable access and travel for all users. Pedestrians, bicyclists, motorists, and public transport users of all ages and abilities are able to safely and comfortably move along and across a complete street.”

Complete Streets require new thinking; it is about creating a decision making process that considers the needs of all users in the front-end design process. Complete Streets are not a design standard—they are focused on the ultimate outcome of creating a complete transportation corridor that is accessible and safe for all users. Simply adding sidewalks and bike lanes to all roads does not make a Complete Street; bicycle and pedestrian facilities should only be provided where they are needed. For example, a Complete Street in a rural area will look different from those in an urban area, but both are designed to balance safety and convenience for everyone using the road. As part of Lee County’s Complete Streets initiative, Lee County will address the roadway classification system, roadway design standards, and the inextricable link with adjacent land uses that have significant impact on the way roads look and feel.

Through a comprehensive Complete Streets approach and a sustainability strategy, Lee County will address many design and urban form issues that have profound impacts on creating streets and neighborhoods that are walkable, safe, and convenient for pedestrians and cyclists.

MAINTENANCE AND OPERATION

With limited funds, maintaining existing bicycle and pedestrian facilities is an ongoing challenge for Lee County and the local municipalities. Paved shoulders and bike lanes are often not subject to regular maintenance which can lead to debris on the road and disrepair. As the bicycle and pedestrian network expands and efforts are made to enhance the quality of those facilities and the user experience, maintenance will become increasingly important.

Operations, in the form of signalization and traffic movement, is another a significant issue identified by many pedestrians and cyclists. In some instances such as signal timing, there is a great opportunity for improvement with relatively little effort and cost.

FUNDING

Funding for all transportation projects, including bicycle and pedestrian facilities, is a challenge in the current economic environment. However, integrating the funding for all transportation modes in a holistic manner, could help achieve the goal of maximizing limited transportation funds by ensuring that every dollar invested returns the highest mobility yield.

The development of this Plan was undertaken, in part, to help change the way that the MPO prioritizes bicycle/pedestrian funds. In previously approved transportation plans, the bicycle/pedestrian box funds were only used on State Highways, but with the implementation of this Plan, the MPO will be able to apply these funds to high priority arterials and collectors throughout the County. In addition to addressing how funding has been allocated in the past, the MPO is currently working with FDOT’s new process for developing project priorities in response to long term needs and in order to get projects ready for federal funding. These efforts are currently being implemented to improve regional opportunities in obtaining competitive funding from a variety of sources.

In order to maximize outside funding opportunities and to limit the cost to local governments, funding for some pedestrian and bicycle facilities can be sought from a variety of special funding sources. For example, the School Board with assistance of local jurisdictions can submit candidate sidewalk projects for Safe Routes to School Funding (SRTS). This funding is used on local roads, collectors and arterials accessing the school to improve walking access.

The following strategies provide direction and general recommendations to address the identified bicycle and pedestrian issues or deficiencies in Lee County. Some strategies have immediate and direct relevance to existing conditions and current needs, while others present options for the future and describe best practices being used successfully elsewhere. They are organized into four broad categories - Network Implementation/Infrastructure Strategies, Planning & Coordination Strategies, Education/Encouragement/Enforcement Strategies, and Livability & Complete Streets Strategies.

Efficient bicycle and pedestrian networks must be planned and implemented strategically. Assembling a network in a piece-meal or ad hoc fashion will propagate fragmentation and lack of cohesion within the network. It is understood that the MPO cannot make direct policy decision for the individual municipalities and Lee County; however, the following encourage a unified and feasible approach to addressing bicycle and pedestrian issues in Lee County. They provide general guidance and are intended to be sufficiently flexible that the individual jurisdictions can adapt them to suit their needs. Specific policy recommendations are presented in Part 8 of this plan.

NETWORK IMPLEMENTATION/INFRASTRUCTURE STRATEGIES

Pedestrian and cycling infrastructure refers to the system of sidewalks, shared-use paths, bicycle lanes, paved shoulders, street crossings, landscaping, hardscaping, street furnishings, and amenities associated with both of those modes of transportation. Lee County has a significant amount of existing bicycle and pedestrian facilities; however, the existing system was built in a piecemeal fashion, and what is missing is a focus on ensuring that the existing facilities are connected into a network that allows people to go where they want to go, safely and conveniently. Because each jurisdiction has been focused on the facilities within its boundaries, there has not been an entity ensuring that connections are being made across jurisdictional lines; this is what this plan is intended to address. Many network deficiencies identified above can be remedied by building new bicycle and pedestrian facilities or by retrofitting existing ones. Specifically, improving the bicycle and pedestrian infrastructure can improve access, connectivity, continuity, close facility gaps, provide intersection and spot improvements, and provide more options for users.



Examples of missing facilities, poor design or facility gaps (photos by Dan Moser).

Potential Implementation Strategies

Lee County Bicycle Pedestrian Network

In accordance with the master plan vision and goals, the number one priority of this master plan is to build a bicycle and pedestrian network that is comprehensive, safe, and connected. Understanding that the needs are infinite but the funds are limited, the MPO must create a complete network that will form the backbone for the entire countywide bicycle and pedestrian system. This network should be located on collectors and arterials eligible for federal funding. Facilities on local roads, which fall under municipal authority, should be encouraged to connect to this network over time.

An effective network should:

- Provide access to desired destinations
- Service the greatest amount of people and all Lee County communities
- Close gaps in the existing system
- Ensure continuous routes
- Provide facilities in high crash areas and enhance overall safety
- Provide connection to places people want to go to:
 - transit
 - neighborhoods
 - commercial centers
 - schools
 - libraries
 - public parks, recreational areas and greenways
 - government buildings
 - hospitals
 - neighboring counties
- Provide the opportunity for regional routes (“long rides”)
- Provide different types of facilities for users of varying ability

Keeping these criteria in mind, Part 7 of this report presents the Proposed Bicycle & Pedestrian Network and Needs Plan.

While this Master Plan and the Proposed Bicycle & Pedestrian Network and Needs Plan do not supersede local plans and regulations, it is the Plans intent to provide a strategic network development approach which should be supported by all Lee County jurisdictions. Furthermore, this plan encourages jurisdictions that do not currently have existing bicycle and pedestrian planning policies in place utilize this Plan as a guide to developing a local bicycle and pedestrian master plan for their communities.

Bicycle and Pedestrian Accommodation

Consistent with MPO Resolution 09-05, local municipalities and Lee County should adopt policies for the accommodation of bicycle, pedestrian, and transit facilities when planning and designing roadway projects during new road construction, reconstruction, resurfacing, and traffic operations/intersection improvements.

Bridges and Overpasses

Given the significant access, connectivity and safety issues caused by lacking or substandard bicycle and pedestrian facilities on bridges, the MPO should develop a strategic approach for providing adequate bicycle and pedestrian facilities on bridges and overpasses throughout Lee County. Bridge access is crucial to interconnecting outlying communities such as Cape Coral, North Fort Myers, Sanibel, and Fort Myers Beach to the rest of the County. Additionally, Lee County beaches are vital to

Potential Implementation Strategies

the tourism industry and the local economy; therefore, providing appropriate bicycle and pedestrian access to those beaches should be a countywide priority. Bicycle and pedestrian facilities should be provided on new or replacement bridges and overpasses and consideration should be given to bridge extensions and creative design solutions such as narrowing travel lanes to create space for minimal facilities.

Local Connection to County-Wide Network

All local units of government should consider developing or updating their plans or facility prioritization methodologies to be flexible and consider the recommendations of this master plan. The MPO's BPCC should explore how local plans could be coordinated with the master plan and how local projects could connect to and/or enhance the countywide priority network presented in Part 7. Special attention should be given to connecting schools, separated or non-roadway bicycle and pedestrian facilities (greenways & trails), park and recreational areas, and points of interests located on local roads. The priority network is located on collectors and arterials, whereas schools, residential neighborhoods and many trip attractors such as libraries are often on local roads. Connecting the "last mile" will ensure access and continuity, and will encourage greater bicycle or pedestrian trips.

Trails and Greenways

Trails and greenways, which are bicycle and pedestrian facilities outside a road right-of-way, are an important component to developing a complete bicycle and pedestrian system. Connecting the network to existing trails and greenways should be considered a priority.

Trails and greenways offer facilities that are separated from vehicular traffic and often set in a natural environment. These facilities offer attractive and peaceful settings for users of all abilities to enjoy. The MPO and local jurisdictions should explore trail and greenway opportunities associated with the Seminole Rail Line, electrical utility easement corridors, and along regionally significant canals. Lee County's Greenways and Blueways program offers a strong foundation for continued efforts to expand Lee County's system of greenways and trails (Attachment 4). Additionally, the Lee County and Collier MPO updated the Bi-County Regional Transportation Network—Pathways Component Map which identifies regionally significant pathway facility priorities (Attachment 5).

CASE STUDY: CONNECTIVITY *Capital Area Greenway Master Plan Raleigh, North Carolina*



The Capital Area Greenway Master Plan was first adopted by City Council in 1976, representing one of the first master planned greenway systems in the nation. The plan identifies over 270 miles of stream, river, ridgeline and utility corridors to be included in the greenway system. To date, the city's 115 square mile greenway system connects over 200 parks and preserves over 5,800 acres of land.

The greenways are required to provide a minimum 10-foot wide asphalt shared-use trail (or boardwalk if in an environmentally sensitive area) for public recreation and form a network of open spaces and recreational trails. The system utilizes culverts and bridges for unobstructed crossing of interstates and highways, and is designed for safe integration into the city's on-road facilities.

Raleigh's comprehensive plan and land development regulations require developments to dedicate or reserve greenway corridors if located along a planned corridor as part of their open space. Developments adjacent to a greenway must link their internal pedestrian system to the trail, if warranted.

Funding is provided through developer contributions, impact fees and voter approved bond packages.

Potential Implementation Strategies

Safety Enhancements

Improving bicycle and pedestrian safety is of utmost importance but cannot be solely addressed by providing new facilities. Bicycle and pedestrian crashes, conflicts, and unsafe conditions occur on existing facilities and can be caused by a number of reasons including poor facility design, bad surface conditions, dirt and debris, insufficient lighting, inadequate signage and signalization, or lack of medians or refuge islands.

Some of these problems are localized and can be addressed with relatively low costs or effort. Sometimes simple re-striping, maintenance, sweeping, or minor physical retrofits can address the issue. Other issues, such as roadway design, are much more problematic, and require a concerted study and significant expense to remedy the problem.

The bicycle and pedestrian crash and fatality data for Lee County is a sobering reminder that Lee County must do a better job at reducing crashes and conflicts between bicycles and pedestrians and motorized vehicles. When observing the data, several high crash corridors immediately stand out. Those areas should be studied and safety enhancements should be implemented to protect pedestrians and cyclists. Many of the high crash corridors have continuous two-way left turn lanes and continuous right turn lanes, and are located along commercial corridors with numerous access points. Solutions such as medians, mid-block crosswalks, reduction of access points and turning movements, and refuge islands could be applied. The following are some improvements that could be strategically applied:

Crossings

Crossings have the greatest potential for hazards, for they are where pedestrians, cyclists, and vehicles have ownership of the same space. Following are principles to make the crossing safer for all.

All crossings should be provided with ADA accessible slopes, ramp widths and tactile surface treatments so visually impaired pedestrians are directed properly. In addition, there should be two ramps per corner in order to direct pedestrians towards the opposite corner. Tactile pavement and contrasting pavement for the pedestrian crossing also signals to the driver that they should slow down and be aware of pedestrian activity.

Medians

Medians help to manage access along a divided roadway - managing where motorists can cross the roadway, turn and conduct a "u-turn." Medians can help keep the feel of the overall roadway width smaller, since they can create a break in the pavement. When trees are planted in the median to provide a canopy over the roadway, the visual quality of the corridor is significantly increased and the "sense of enclosure" provided to the motorist can help to slow travel speeds. They are an important source of refuge for pedestrians (between opposing travel lanes) and for vehicles waiting to turn left. They have been proven to significantly reduce crashes when compared with undivided four or more lane roadways.



*Median in Charlotte, NC,
Source: www.pedbikeimages.org*

They can also add civic character and beauty to a community by providing places for trees, landscaping, and hardscape treatments, such as art work or statues. The medians, in the photo to the right, provide three functions: calm traffic, beautify and shade the street, and provide drainage.

Textured Crosswalks

Textured crosswalks are beneficial in a number of ways. In addition to visually reminding a driver to slow down, a slight rumble and vibration also occurs. Textured crosswalks can be made of

Potential Implementation Strategies

brick/concrete pavers, or pigmented concrete/asphalt and patterned to beautify the street.

Signalization

Crossing of major intersections are facilitated by signals. Signals are important to allow the sharing of the limited time each intersection has to move vehicles and pedestrians through it while avoiding conflict between movements. It is important that signal timing be managed to avoid unnecessary delay. While the County has a very effective traffic management system, signals do not seem to accommodate the reduced traffic volumes during certain times of the day. This creates significant delay outside of the peak hours. As part of this study, cyclists were observed crossing intersections outside of the proper phase due to the length of time they had to wait. Bicycle-activated detection measures should be considered to address this issue. The County has programmed the design and construction of a Computer Signal System Update, which may be beneficial to bicycle and pedestrian issues.

Spot Improvements and Roadway Maintenance & Enhancements

Minor spot improvements related to issues such as uneven surfacing, signalization timing, and location of bike lanes at intersections represent safety improvements that can be made as part of routine maintenance and operation efforts. Identifying and reporting these issues and ensuring that the information is effectively conveyed to the responsible parties is often the most significant challenge. As part of the development of this master plan, users were encouraged to submit their bicycle and pedestrian issues via the project website. The information was gathered and entered into a GIS map which illustrated the location of each issue and also provided a brief description of the issue. Through such a GIS map, a centralized database of countywide issues could be created - the public would see what issues have been reported, and submitters would feel confident that their issue has been received and properly identified. The map could be used on an ongoing basis and could also report problems that have been corrected. The MPO and the local governments should consider the utilization of such a map on an ongoing basis.

The conversion of paved shoulders into bike lanes, the restriping of wide curb lanes to provide a shoulder or bike lane, and re-striping bike lanes at intersections to address “key hole” issues are some of the improvements that should be addressed through any road improvement project, including the regular resurfacing of roadways in the County. The resurfacing of roadways occurs according to a planned schedule, which provides jurisdictions with the ability and opportunity to assess and implement bicycle and pedestrian enhancements as part of this regular process. Too often however, there is a lack of communication between transportation planners and the individuals in charge of resurfacing roadways. The MPO and local government units should consider procedures or mechanism such as simple checklists to ensure that streets scheduled for resurfacing are reviewed to determine if other improvements, such as bicycle pedestrian improvements, transit stops, ADA improvements, safety enhancements, are needed prior to any resurfacing activity. If additional improvements are deemed necessary, then engineering studies and permitting could be handled through the 5-year CIP Work Plan with a holistic approach.

Network Quality

As expressed above, the number one priority should be to develop a countywide network. Through the completion of this priority or “backbone” network, a comprehensive and well-connected bicycle system will emerge over time. It is understood that significant expenditure will go toward the construction of facilities; however, network quality is an important factor in creating a world-class bicycle and pedestrian system in Lee County and should be a constant consideration when planning and building facilities. Network quality is related to “**user experience**,” which is nebulous and can be challenging to define. Part of the challenge is that there are numerous types of bicycle and pedestrian users with varying levels of abilities and needs. However, best practices around the country, demonstrate that improving the user experience will encourage bicycle and pedestrian activity.

Potential Implementation Strategies

To improve the pedestrian experience, appropriate-width sidewalks or shared-use paths buffered from the street by on-street parking (where possible) or by a planting strip to create separation from passing vehicles and then lined with street trees or arcades for shade will greatly improve conditions for the pedestrian.

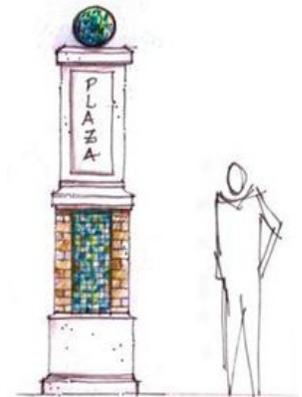
As for bicyclists, some are comfortable sharing streets with traffic, while others find busier streets intimidating. Providing a variety of bicycle facilities, and routes with an array of amenities is important to improving the cycling experience.

Wayfinding & Signage

Wayfinding and signage is an effective way to improve user experience, but can also help brand a bicycle and pedestrian network, and entice economic activity along routes. Wayfinding and directional signs provide a needed information and direction system to guide cyclists and pedestrian safely and efficiently along routes. Wayfinding signs, such as a pedestrian directory, can provide landmark names and directional arrows that indicate the direction of travel to a particular landmark.

Wayfinding and signage can also be used as gateways to routes and points of interest. Gateway columns, as depicted can delineate routes, can enhance visual interest, and can encourage pedestrian and cyclists to visit points of interest along the routes.

Wayfinding, for example, would be particularly useful as part of the Lee Tour de Parks demonstration project identified in section 7. It could enhance the proposed route and provide a unified them that could be extended into the recreational areas such as Lake Park.



Source: RWA/LDI

Amenities

Street Furniture:

Seating on key pedestrian routes should be considered every 300 to 600 feet to provide rest and to encourage street activity. Seating should be located where there is good natural surveillance. This encourages street activity and offers respite to those who may be physically disadvantaged or visually impaired. The community should use locally distinctive, durable, and maintainable materials for street furniture. Pedestrian-scaled lighting in appropriate places will encourage use by cyclists and pedestrians.



Source: www.pedbikeimages.org

Rest Areas:

Rest areas can greatly enhance bike routes by providing a safe place for users to rest and retreat. Rest areas can also be used to provide an identity to routes and create a sense of place. Various types of rest areas can be provided to meet localized needs and conditions. The size, design, and amenities provided will vary according to the context. Rest areas can include, bike racks and parking, benches, picnic tables, water fountains, bathroom facilities, interpretive kiosks, and shade features. Sanibel's Shared Use Path Master Plan identifies three different types of rest areas with varying amenities – basic, moderate, and terminal rest area facilities.

Bike Parking/Bike Racks/Lockers:

Bike parking should be made as convenient as car parking and considered necessary infrastructure similar to car parking. Just as a community plans for parking, a community should also plan for bike parking. Employers should be encouraged to provide ample and suitable bike racks/lockers wherever possible. Lee County



Source: www.pedbikeimages.org

Potential Implementation Strategies

communities that do not already require bike racks for commercial and multi-family buildings, should consider adding such requirements in their land development code. Similar to parking requirements, new development would be required to provide a minimum number of bike racks based for new development.

Landscaping

If properly planned and provided, street trees can serve three purposes: beautification, protection, and shelter. Trees between the sidewalk/shared use path and the roadway help protect pedestrian and cyclists from passing cars. Using this technique, users will not feel as vulnerable to speeding vehicles and large trucks. On narrower roads, the trees will naturally slow down drivers. The trees create a feeling of enclosure, and drivers become more alert of pedestrians and cyclists and what occurs on the sides of the street.

Shade trees, such as the live oak, offer ample shade where used properly. In some areas, shade trees are provided but are planted too far from the sidewalk to offer any shading. Shade trees should be placed so that a tree's canopy covers the sidewalk. Trees may be used on both sides of the sidewalk or shared-use path in appropriate areas such as residential areas and at non-retail frontages.

Care needs to be taken in the planting of shade trees so as to not diminish the visibility of the sidewalk/shared-use path from natural surveillance. Additionally, Crime Prevention Through Environmental Design (CPTED) principles would be utilized when developing landscaping plans to ensure security.

Facility Diversity

There are numerous types of facilities which can be used in different contexts throughout Lee County. Given Lee County's need to develop countywide priority network, the Proposed Bicycle & Pedestrian Network and Needs Plan found in Part 7 focuses on providing sidewalks, bike lanes, paved shoulders, and shared-use paths. However, there are many other types of facilities that could be used within different areas of the County. Urban areas, with greater densities and intensities, and established roadway grids, lend themselves to various types of facilities and more creative applications of those facilities. Local communities should consider all facility types when planning and building bicycle and pedestrian facilities within their jurisdictions. Also, as successful implementation of this master plan occurs there will be a need to review and revise this plan to incorporate more types of facilities within the network.

Facility types are diverse and are often defined differently from place to place. However, bicycle and pedestrian facilities generally fall within these categories:

Pedestrian

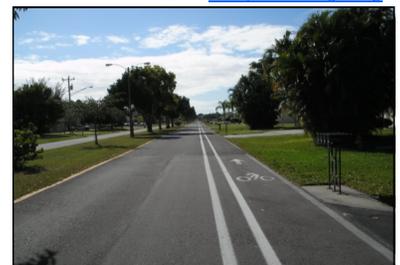
- Sidewalks
- Pedestrian boulevards/malls
- Walking trails
- Shared-use paths

Bicycle

- Paved shoulders
- Wide curb lanes/wide outside lanes
- Bicycle lanes
- Bicycle boulevards
- Shared-use paths
- Bicycle routes
- Shared-use lane marking – sharrows
- Greenways and trails



Source: www.pedbikeimages.org



Source: Dan Moser

Potential Implementation Strategies

- Bicycle box
- Contra-flow bicycle lanes
- Physically-separated bicycle lanes



Source: www.pedbikeimages.org

There are numerous sources that describe and define these facilities in detail. Some of the best resources include:

- AASHTO guidelines (*Guide for the development of Bicycle Facilities & Policy on Geometric Design of Highways and Streets*)
- The Manual on Uniform Traffic Control Devices (MUTCD),
- FDOT's Greenbook, Specifically Chapter 19 on Traditional Neighborhood Design.
- ITE's "Designing Walkable Urban Thoroughfares: A Context-Sensitive Approach"
- The National Association of city Transportation Officials (NACTO) "Urban Bikeway Design Guide" (<http://nacto.org/cities-for-cycling/design-guide>)

Numerous additional resources and web links can also be found on the following websites which are great information repositories:

- www.walkinginfo.org
- www.pedbikeinfo.org
- www.pedbikeimages.org
- www.saferoutesinfo.org

Potential Implementation Strategies

A good example of a community that is using numerous types of facilities within their master plan is the City of Miami. The Miami Bicycle Master Plan calls for the use of seven different types of facilities and defines several other types of facilities for future considerations. The following are excerpts from their master plan.

Shared Use Lane Marking (Sharrow): a pavement marking applied to a thoroughfare too narrow to accommodate bicycle lanes and/or with vehicular target speeds slow enough to allow cyclists to move safely with motor vehicles. It should be noted that while Sharrows are currently considered an experimental bikeway type, they are in the process of being adopted into the MUTCD.

Bicycle Lane: a lane reserved for bicycle travel within a vehicular thoroughfare, marked by painted lines, signs, and bicycle symbol pavement markings.

Shared Use Path / Greenway: a dual-direction Bikeway that is physically separated from the vehicular right-of-way, and shared with pedestrians. A greenway is an on-or off-street corridor designed for recreational bicyclist and pedestrian use. It should be noted that all Miami River Greenway shared use path / greenways in the network plan should comply with the previously completed Miami River Greenway Design Standards and Guidelines.

Bicycle Boulevard: a thoroughfare with shared vehicular lanes that use a variety of traffic calming devices to give movement priority to bicyclists. To facilitate movement and to increase identity, stop signs along a boulevard's trajectory may be removed and signs detailing distance to destinations may be added.

Neighborhood Connection: a designated alley or lane that provides a needed bicycle connection within residential neighborhoods.

Scenic View Route: a designated low-speed, shared use residential street that provides views of Biscayne Bay, Miami River, or the Little River.

Other bikeway facility types and features explored are referenced in this network plan are defined as follows:

Bicycle Box: a section of pavement aimed at preventing bicycle/car collisions at intersections, particularly between drivers turning right and cyclists traveling through an intersection within an existing Bicycle Lane. To improve its visibility, a Bicycle Box is often colored and includes a standard white bicycle pavement marking (Syn: advance stop line). It should be noted that the bicycle box is an experimental countermeasure not yet adopted by the MUTCD.

Bikeway: a continuously designated segment of right-of-way that provides exclusive, preferential, or equal priority for bicycle travel. Bikeway facilities include bicycle routes, lanes, paths, boulevards etc.

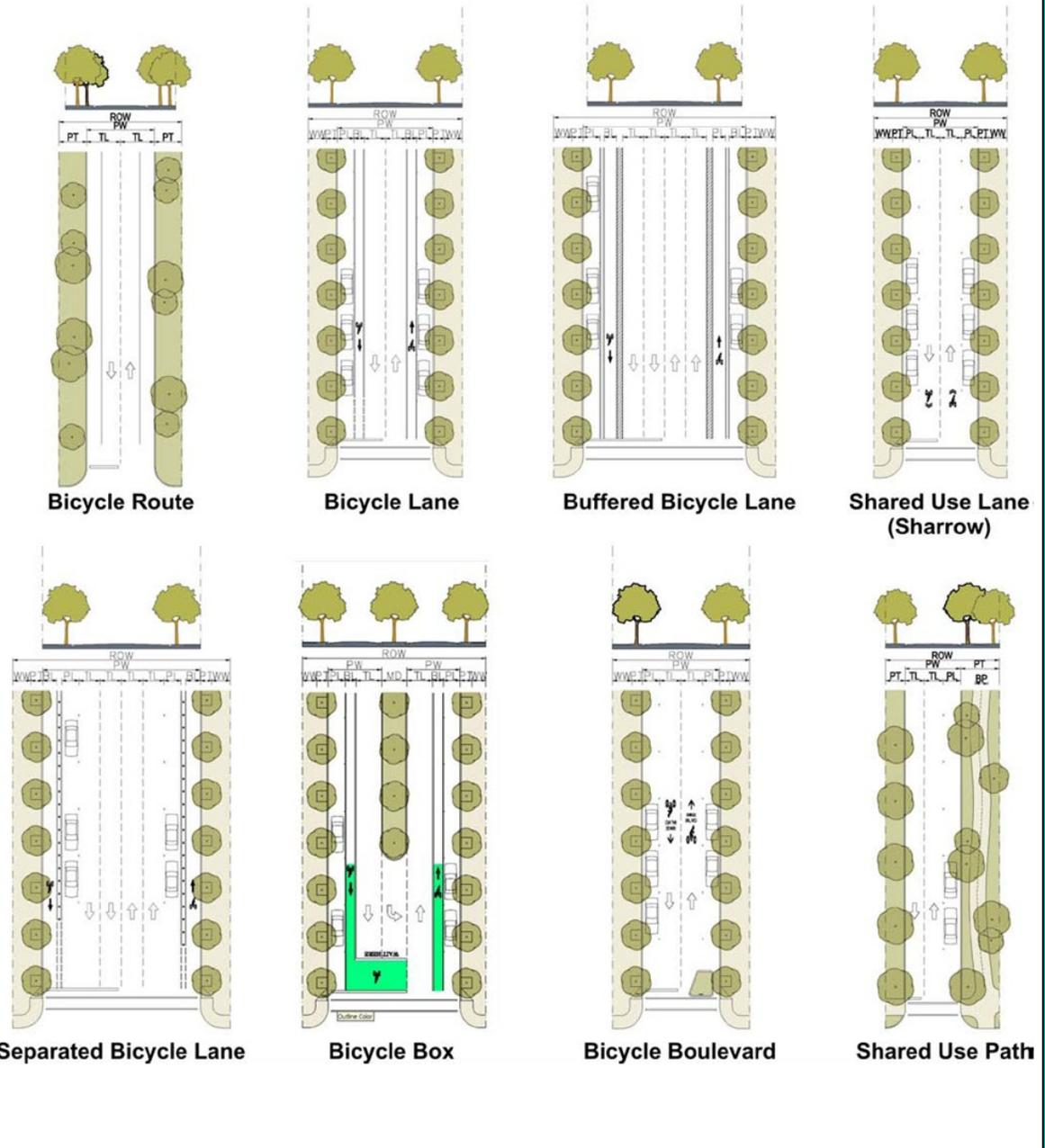
Buffered Bicycle Lane: a Bicycle Lane buffered from vehicular travel and/or parking lanes by pavement markings and/or an unmarked 'shy zone.'

Contra-Flow Bicycle Lane: a designated Bicycle Lane marked to allow bicyclists to travel against the flow of traffic.

Physically-Separated Bicycle Lane: a Bicycle Lane separated from the motor vehicle travel lanes by curbs, railings, plantings, parked cars, and/or grade separation, etc. (Syn: cycle track, sidepath)

Potential Implementation Strategies

Bikeway Types from Miami Bicycle Master Plan



Potential Implementation Strategies

PLANNING & COORDINATION STRATEGIES

It is imperative to coordinate planning efforts for bicycle and pedestrian facilities throughout Lee County. The County is comprised of many diverse areas, both geographically and politically, and efforts should be made to guarantee that the bicycle and pedestrian facilities are planned in a coordinated manner. The following strategies can help ensure that there is an integrated approach to providing bicycle and pedestrian improvements throughout Lee County, regardless of jurisdictional boundaries.

Dedicated Bicycle Pedestrian Staff

The Lee County MPO should have dedicated staff to coordinate all bicycle and pedestrian planning efforts. Typically, transportation planning puts its primary focus on roadway projects intended to increase capacity for vehicular travel. Having dedicated staff would help keep bicycle and pedestrian facilities from being an “afterthought” and ensure that roadway planning and design consider all users of the roadway. Dedicated staff can also be the liaison with the various jurisdictions in Lee County and adjacent communities on matters relating to bicycle and pedestrian facilities, data collection and maintenance, and implementation of this master plan. Plans and policies can only take things so far – successful implementation mandates dedicated staff working on bicycle and pedestrian issues each and every day.

Coordination Amongst Local Jurisdictions

The Lee County MPO, through the BPCC should encourage Lee County and the various municipalities to establish mechanisms to coordinate bicycle and pedestrian planning endeavors that are consistent with this master plan and to incorporate facility priorities and policy recommendations into their comprehensive plans, transportation plans/capital improvement plans, bicycle and pedestrian programs, and land development regulations (LDR).

Uniformity in Design and Terminology

One of the challenges in coordinating efforts between several jurisdictions is the inconsistency in terminology and design standards. The BPCC should explore ways to standardize terminology and standards amongst jurisdiction. Each jurisdiction should consider establishing a uniform set of definitions and minimum design standards for bicycle and pedestrian facilities within their own jurisdiction. Where practicable, these standards should be consistent with AASHTO and FDOT’s Green Book. Specifically, each jurisdiction should consider defining paved shoulders, wide curb lanes, bicycle lanes, shared-use paths, and sidewalks and provide a minimum width requirement. It is understood that minimum standards may vary from jurisdiction to jurisdiction; however, having clearly defined terms and standards will help the future development of bicycle and pedestrian facilities in all communities.

Data Collection and Sharing

In order to implement this plan effectively and track and quantify improvements made over time it will be important to ensure that each municipality is collecting GIS data in a manner which is consistent with the countywide database that has been produced as part of developing this master plan. The MPO should be the repository of all bicycle and pedestrian data and should assemble and categorize it in a unified database. The MPO through the BPCC should establish data collection and exchange protocols. Evaluation metrics and targets regarding bicycle and pedestrian safety as well as network development should be monitored and evaluated by the MPO and presented to the public on an annual basis.

Potential Implementation Strategies

Identify and Preserve Corridors

The Lee County jurisdictions should identify facility needs and opportunities to preserve right-of-way corridors for bicyclists and pedestrians. Specifically, development applications along planned corridors should be reviewed to ensure that right-of-ways have appropriate widths to accommodate planned bicycle and pedestrian improvements. Rights-of-way can be preserved through dedications, reservations, targeted acquisitions, and, as a last resort, condemnation. Additionally, local jurisdictions should monitor petitions to vacate rights-of-way to consider the appropriateness of maintaining the corridor for pathway purposes. In order to facilitate provision of facilities by private development along identified corridors, all municipalities should have regulations that define facility provision requirements, as well as consider the use of payment-in-lieu or build-in-lieu options to provide flexibility.

Coordination with Agencies and Departments

The Lee County MPO, with leadership from the BPC, should regularly coordinate with various agencies and departments in the County regarding bicycle and pedestrian facilities. Coordination should occur with the Lee County Sustainability Office, Lee Tran, and the various Planning, Parks and Recreation, Public Works and Engineering Departments to ensure that applications for new developments, parks, and road improvements are coordinated with this master plan. Coordination efforts should also be made with adjacent jurisdictions to allow for the creation of regional bicycle and pedestrian facilities. Additionally, the MPO should work with private and quasi-public agencies, such as Lee Memorial Health (Fit Friendly SWFL), Lee County Schools and Florida Bicycle Association, BikeWalkLee, and the Caloosa Riders Bicycle Club to assist in programs that encourage healthy lifestyles and safe routes to schools.

Comprehensive Planning

Lee County and the local municipalities should take the opportunity provided by the Evaluation and Appraisal Report (EAR) process (a state-mandated process which requires local governments to evaluate and update their Comprehensive Plans every seven years) to incorporate or enhance bicycle and pedestrian goals, objectives, and policies within their comprehensive plans. Lee County is completing its EAR and local municipalities will be conducting theirs in 2011. Following the EAR, local governments have to amend their comprehensive plans and subsequently develop land development regulations to implement new policies. Lee County is looking at significant changes to its plan including a new roadway classification system, incorporation of Complete Streets policies, and addressing the need for different regulations for urban, suburban, and rural areas.

Regularly Review and Update the Master Plan

The Lee County MPO should regularly review and update the Master Plan to assess changing community needs, to reflect changes to state and local plans and laws, and to document the status of proposed provisions. While regular amendments can be made as needed, major updates should be undertaken every four years and include coordination with the local jurisdictions and allow for stakeholders to provide public input.

Potential Implementation Strategies

LIVABILITY & COMPLETE STREETS STRATEGIES

In order to maximize the effectiveness of planned bicycle and pedestrian facilities, Lee County and its municipalities should make a concerted effort to promote livable and sustainable communities that will facilitate walking and cycling. Livable communities are family-friendly, human-scaled, aesthetically pleasing, and designed to encourage pedestrian activity through the provision of Complete Streets. Complete Streets are designed with consideration to all users; not just vehicular travel. Policies and regulations should be adopted to encourage the incorporation of these Complete Streets and livable community features.

Encourage Mixed Use Developments and Urban Design Elements

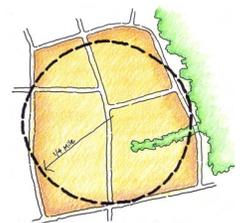
Through the proper mix of uses; the design and orientation of buildings to the street and public realm; and design of streets and pathways, more people tend to be “out and about” during all times of the day. The mix of uses allows for shorter trip distances, which encourages walking and bicycling. Utilizing these elements results in a built environment that promotes more eyes on the street from surrounding uses, creating what is considered “natural surveillance.” This increases safety, discourages crime, and, thereby further increases the attractiveness of walking, bicycling, and using transit.

Public Realm Improvements

The pedestrian experience is almost as important as the distance traveled. The public realm is the area between building facades on each side of the street, including the street, sidewalk and landscaped strips, and improvements to the public realm can have dramatic effects on walking and cycling. Creating walkways that pedestrians feel safe and comfortable walking along is essential. Street trees and building features such as awnings, display windows, and arcades to provide protection from the elements will extend the reasonable pedestrian shed. Placing buildings at the back of sidewalk improves access and convenience for the pedestrian. The pedestrian experience can be further enhanced by providing complementary uses and amenities such as restaurants, shops, public artwork, and benches.

Pedestrian Shed

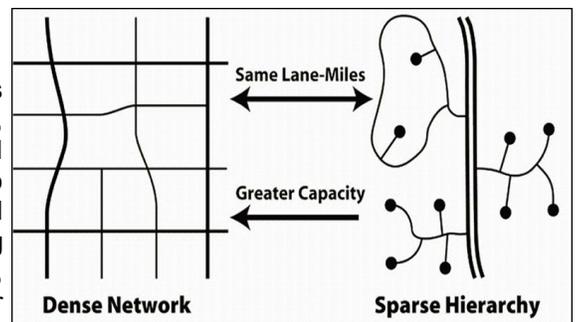
Research shows that trip distance is the most important factor affecting our choice to walk. People will generally walk between a quarter-mile to a half mile (called the pedestrian shed) to routine destinations such as shopping or transit. These distances take approximately five to ten minutes for the average person to walk. Locating key attractions within the pedestrian shed of higher density residential areas will increase the number of pedestrians and cyclists.



Pedestrian Shed

Shorten Block Lengths, Increase Interconnectivity and Limit Cul-de-sacs

Great communities have a diversity of street types serving the different trip lengths and types, modes, and community needs. Streets range in size and scale: streets in business districts are intended to provide access to business and customers and usually have defined and managed on-street parking and wider sidewalks to accommodate outdoor dining, street furniture, formal landscaping and larger



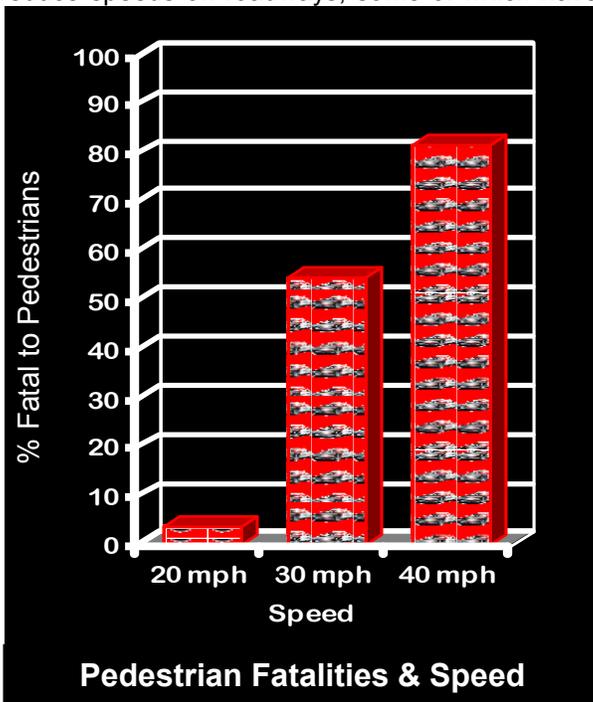
* Exhibits on this page from
Glattig Jackson

Potential Implementation Strategies

numbers of pedestrians; local streets in residential areas may have smaller travel lanes, encouraging slower vehicular speeds with less formal parking arrangements and narrower sidewalks. Streets should terminate at an intersection with other streets, creating a dense network of transportation routes. A gridded street system, with high interconnectivity is ideal for increasing route options and improving convenience. It reduces the need for four and six-lane highways, which reduces vehicle speeds and increases safety for pedestrians and cyclists. For block size to be supportive to pedestrians and therefore supportive to all modes of travel, block perimeters should be limited to an average perimeter of approximately 1,320 feet. Cul-de-sacs should be used very sparingly such as when some physical barrier prohibits connecting into the network. Maximum cul-de-sac lengths should be provided in development regulations and pedestrian access should be encouraged when cul-de-sacs back up to each other.

Design Streets for Lower Speeds

Lower speeds not only increase actual safety for pedestrians and cyclists, but also increases the perception of safety. This encourages ridership and overall walkability. Lee County and its municipalities should ensure that development regulations allow, or do not preclude, the use of design features to reduce vehicle speeds. There are a number of design elements that can reduce speeds on roadways, some of which have already



Source: U.K. Dept. of Transportation

CASE STUDY: TRAFFIC CALMING Waterfront Roundabout Fort Pierce, Florida



Traffic and poor design in the historic downtown and waterfront areas of Fort Pierce produced an unappealing pedestrian environment and declining street life. In 1995 the City of Fort Pierce, the Main Street Fort Pierce program and the Treasure Coast Regional Planning Council jointly sponsored a charrette to address these issues.

The resulting plan included a roundabout at the gateway between the historic downtown and waterfront areas which serves as both a traffic-calming device and a civic monument. A connected system of new waterfront streets extends from the roundabout. Curb extensions, median refuge islands, and clearly marked crosswalks make pedestrian crossing safer and easier. This infrastructure helped prompt a return of pedestrian activity.

Ramon Trias, an urban designer, lives in the historic neighborhood between two roundabouts and can speak about their effect on the area from 12 years' personal experience: "Before the roundabouts, the neighborhood was infested with crime and was not even seen as historic. Now it has become one of the best places to live in Fort Pierce, and it is praised for its historic houses and safe streets."

- from "CASE STUDY COMPENDIUM"
Pedestrian and Bicycle Information Center
www.pedbikeinfo.org

Potential Implementation Strategies

been mentioned. These include the use of a gridded street system with shorter blocks, two-lane roads and more intersections; placing buildings at the back of the sidewalk to create a sense of enclosure; and increasing the number of pedestrians along the sidewalks adjacent to the street. Other design elements that help reduce speeds include:

- Reducing lane widths;
- Providing on-street parking;
- Incorporating street calming features such as speed humps, raised crosswalks and speed tables;
- Require curb extensions, chokers or bulbouts at intersections or midblock;
- Utilize roundabouts or mini circles;
- Provide textured crosswalks.

EDUCATION/ENCOURAGEMENT/ENFORCEMENT STRATEGIES

Education, encouragement and enforcement programs are key components to increasing mode share for walking and bicycling, improving safety, and building support for bicycle and pedestrian investments. Such programs require the involvement of local government and agencies, law enforcement, private entities, non-profit organization and a strong volunteer base.

Education

Education has to occur on several levels.

- Educating cyclists, pedestrian, and motorist about safety issues, laws and regulations, and the need to responsibly share the road.
- Educating the public about the benefits of walking and cycling, including health, traffic, environmental, social, economic and livability benefits.
- Educating the public, users, elected officials and government staff about local bicycle and pedestrian issues to ensure constructive dialogue and effective decision making.
- Educating the public about existing facilities and programs. In order for people to conveniently take advantage of alternatives to driving, they first must know how to best navigate their community.
- Educating government and agency staff about ongoing efforts, existing programs and resources available. This will ensure better coordination amongst jurisdictions and will facilitate their ability to do their jobs effectively.

CASE STUDY: PEDESTRIAN SAFETY, PUBLIC HEALTH, AND EDUCATION

Step Up to School Program Orange County, Florida



Orange County linked nutrition programs with Safe Routes to School's (SRTS) focus on physical activity to help reduce childhood obesity. The Orange County school district is the 11th largest school district in the nation and coordinated a SRTS grant with the existing school wellness program and further coordination with the Florida Department of Health and Orange County Health Department to make the community healthier.

To accomplish this, the District surveyed parents to determine why they did not allow their children to walk to school. A coordinated public education plan was coordinated at local schools to promote physical activity and encourage walking to school. PTA presentations, safety lessons for students and a Walk-to-School Day help foster participation. To address safety concerns, partnerships were formed to identify potential infrastructure improvements and parents initiated a letter-writing campaign to request them.

Results from these efforts show a 18-37% increase in students walking to school at the pilot elementary schools during the first year and 300% increase in the number of schools participating in the Team Nutrition Challenge. Plans are underway to extend the program to neighboring Counties.

Potential Implementation Strategies

Education efforts should cast a wide net and utilize a wide variety of mediums and forums to target different audiences. Examples include: public presentations, training classes, safety campaigns in the media, curriculum content within schools and driver education classes, and dissemination of information through websites, public access television, and printed documents.

Encouragement

Encouraging people to bike and walk is about creating mode shifts and promoting healthier and more sustainable lifestyles. This is consistent with transportation demand management (TDM) principles which aim at reducing travel demand from single occupancy vehicles and shifting that demand to alternative modes of transportation. Education is a significant aspect of encouraging bicycle and pedestrian activity, but encouragement goes beyond education by establishing programs, events and regulations that enable or promote biking and walking.

Encouragement is about:

- Providing adequate infrastructure and an enjoyable user experience. Providing convenient access, wayfinding, gateways, amenities and attractions will encourage greater use of the facilities.
- Developing a variety of programs that encourage biking and walking, including programs that encourage:
 - ◊ the use of transit
 - ◊ employers to provide shower, locker, and bike parking facilities
 - ◊ bicycling and walking through organized events, and
 - ◊ children to walk and bike to school.
- Developing policies, regulations and programs that implement TDM principles and promote walking and biking through:
 - ◊ facility, roadway, and urban design
 - ◊ guidelines regarding where to locate schools and how to design school campuses
 - ◊ directives regarding the acquisition and design of parks, recreation areas, and conservations land
 - ◊ land development regulations promoting compact development, Complete Streets, and livable communities
- Marketing and promoting existing facilities, plans, and programs.
- Coalition building and public involvement

Enforcement

Both motorist and cyclist have rules and regulations they must obey. Using enforcement as an education tool and as a means to correct dangerous behavior can significantly improve safety conditions on roadways. Partnering with law enforcement entities to develop bicycle and pedestrian-specific approaches and strategies should be an integral part of implementing this plan.

Funding Strategies

Integrating Bicycle and Pedestrian Funding into Existing Programs and Projects

In the past, funding and planning for bicycle and pedestrian facilities were largely afterthoughts; however, transportation administrators and planners are beginning to accept that, in order to advance transportation operations, it is imperative to integrate these modes into the general transportation and land-use planning and funding processes. Integrated transportation and land use practices can create a more effective multi-modal transportation network while making more efficient and effective use of funds.

Potential Implementation Strategies

The MPO and local jurisdictions are encouraged to address all transportation decisions, including funding, in a holistic manner that avoids segregation of transportation modes. In doing so, the goal should be to maximize limited transportation funds by ensuring that every dollar invested returns the highest mobility yield. Said differently, there should be no tradeoff between modes of transportation—motorized vs. non-motorized. Complete streets, which provide capacity for cars, pedestrians, cyclists and transit provide greater transportation capacity and a better return on investment than single mode facilities. Therefore, the funding priority should be to ensure that all new construction, expansions or roadway resurfacing accommodate all modes.

Rather than being an add-on, or requiring difficult and expensive retrofitting at a later date, incorporating bicycle and pedestrian facilities into general construction and maintenance projects helps to ensure the most efficient use of both limited right-of-way space and limited funds for construction.

Every effort should be made by the MPO and local jurisdictions to include bicycle and pedestrian facilities on new roadways, and as part of roadway enhancements, resurfacing and even utility work within the ROW, consistent with MPO Resolution 09-05 and USDOT's Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations signed on March 11, 2010.

A variety of federal, state, and local initiatives have in recent years sought to better integrate the needs of bicyclists and pedestrians in routine functions and operations.

Aligning Local Programs with Federal Policies

The USDOT continues to develop stronger support of non-motorized transportation as demonstrated most recently in the Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations signed on March 11, 2010.

The USDOT/FHWA supports the development of fully integrated active transportation networks and is moving to integrate supporting initiatives within federal policies via collaboration with other federal agencies.

The USDOT has partnered with the US Environmental Protection Agency and US Housing and Urban Development to help foster livable communities, in part through grant funding aimed at reducing automobile dependence.

CASE STUDY: FUNDING *Ring Around the City* Punta Gorda, Florida



The City of Punta Gorda's Ring Around the City is a system of bicycle and pedestrian trails and paths that will connect the City's neighborhoods, parks, and commercial areas. Covering over sixteen miles at completion, the scale of this project requires that it be composed of various projects, which are further broken down into several phases that can be developed as funds become available.

As with any recreational project of this size, funding is a major hurdle. Including landscaping and structures along the trail, wide-range estimates put the total cost between \$12 and \$19.6 million.

To fund such an undertaking, the City is utilizing a combination of Federal Transportation Funds and private sector development projects. The citizens of Punta Gorda voted in favor of a 1 Cent Local Option Infrastructure Sale Tax from 2009-2014 to help fund the project.

The sales tax was passed by voters because the City was able to sell this major infrastructure investment as down payment on the path to a more sustainable Punta Gorda. With the approved 1 Cent sales tax, the City was able to borrow \$4.5 million to begin construction immediately. The project is expected to be complete in 2014.

Potential Implementation Strategies

Accessing the Diversity of Federal & State Funding

Federal surface transportation law provides tremendous flexibility to states and MPOs to fund bicycle and pedestrian improvements from a wide variety of programs. Virtually all the major transportation funding programs can be used for bicycle and pedestrian related projects.

When considering ways to improve conditions for bicycling and walking, states and MPOs are specifically encouraged to:

- Include bicycle and pedestrian improvements as an incidental part of larger projects, as described above; and
- To review and use the most appropriate funding source for a particular project and not rely primarily on the Transportation Enhancements (TE) funds. Many bicycle and pedestrian projects are more suitable for funding under the Surface Transportation Program or another program.

A few noteworthy federal and state funding opportunities are highlighted below:

Safe Routes to School (SRTS) Program: The Safe Routes to School Program (SRTS) 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 will provide a total of \$612 million in Federal-aid highway funds to State Departments of Transportation (DOTs) over five Federal fiscal years (FY2005-2009), to make it safer, easier and more fun for children in grades K through 8, to walk or bicycle to and from school. SRTS Program has been extended since 2009 and it is anticipated that it will be continued in the next Transportation Act.

Metropolitan & Statewide Planning Formula Grant Programs: These programs, jointly administered by FTA and FHWA, provide formula funding to support cooperative, continuous, and comprehensive planning for making transportation investment decisions in metropolitan areas and statewide. Eligible recipients include State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs). Additional information may be found at: http://www.fta.dot.gov/funding/grants/grants_financing_3563.html and <http://www.fhwa.dot.gov/planning/index.htm>

The Recreational Trails Program (RTP): This program provides funds to States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). Federal transportation funds benefit recreation including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or other off-road motorized vehicles. Additional information is available at <http://www.fhwa.dot.gov/environment/rectrails/>

Positioning Local Projects for State and Federal Funding

As identified above, numerous funding sources exist; however Lee County projects are not always well-positioned to qualify for such funding. Becoming knowledgeable of the various programs and identifying funding sources early in the process could lead to more projects being eligible for those funds. The following represents a few strategies to improve the odds of Lee County projects being funded:

- **Encouraging More Submissions** - Increasing interaction with local governments to seek out more projects even if they may traditionally have scored low. Encourage the local agencies to submit as many projects as possible so after the screening there is a robust and comprehensive list of good constructability projects in order to tap into as much funding as possible from FY 2016/17 and unused funds from previous years.
- **Advance Reimbursement** - The current economic climate is making it difficult for FDOT to

Potential Implementation Strategies

The following table demonstrates how a wide variety of bicycle and pedestrian system components may be eligible for funding under a diverse selection of sources:

Exhibit PP: Federal Bicycle/Pedestrian Funding Opportunities Table

	NHS	STP	HSIP	SRTS	TEA	CMAQ	RTP	FTA	TE	BRI	402	PLA	TCSP	JOBS	FLH	BYW
Bicycle and pedestrian plan		*				*						*	*			
Bicycle lanes on roadway	*	*	*	*	*	*		*	*	*					*	*
Paved shoulders	*	*	*	*	*	*				*					*	*
Signed bike route	*	*		*	*	*									*	*
Shared use path/trail	*	*		*	*	*	*			*					*	*
Single track hike/bike trail							*									
Spot improvement program		*	*	*	*	*										
Maps		*		*		*					*					
Bike racks on buses		*			*	*		*	*							
Bicycle parking facilities		*		*	*	*		*	*							*
Trail/highway intersection	*	*	*	*	*	*	*								*	*
Bicycle storage/service center		*		*	*	*		*	*				*	*		
Sidewalks, new or retrofit	*	*	*	*	*	*		*	*	*					*	*
Crosswalks, new or retrofit	*	*	*	*	*	*		*	*						*	*
Signal improvements	*	*	*	*	*	*										
Curb cuts and ramps	*	*	*	*	*	*										
Traffic calming		*	*	*									*			
Coordinator position		*		*		*							*			
Safety / Education position		*		*		*					*					
Police patrol		*		*							*					
Helmet promotion		*		*	*						*					
Safety brochure/book		*		*	*	*	*				*					
Training		*		*	*	*	*				*					

NHS	National Highway System	BRI	Bridge
STP	Surface Transportation Program	402	State and Community Traffic Safety Program
HSIP	Highway Safety Improvement Program	PLA	State/Metropolitan Planning Funds
SRTS	Safe Routes to School Program	TCSP	Transportation and Community and System Preservation Pilot Program
TEA	Transportation Enhancement Activities	JOBS	Access to Jobs/Reverse Commute Program
CMAQ	Congestion Mitigation/Air Quality Program	RTP	Recreational Trails Program
FLH	Federal Lands Highway Program	FTA	Federal Transit Capital, Urban & Rural Funds
BYW	Scenic Byways	TE	Transit Enhancements

Potential Implementation Strategies

agree to advance reimbursement. However, FDOT is still advancing some funds to build a project in an earlier year when it meets stringent parameters. Unfortunately, many projects do not qualify because of drainage and utility improvements associated with the roadway project. Identifying these pitfalls and addressing them prior to submitting the projects will improve the ability to obtain advance funding.

- **Local Assistance Program (LAP) Certification** - The City of Sanibel, Town of Ft. Myers Beach and City of Bonita Springs are not currently LAP certified. The lack of certification takes them out of the running for TE funds. Obtaining LAP certification for all municipalities in Lee County would provide greater funding options. The Lee MPO should assist non-certified jurisdictions obtain certification.
- **Federal acquisition process** - Many pathway projects might not meet the eligibility requirements for federal funding either because of questionable right-of-way (ROW) or because the ROW was acquired without conforming to federal requirements. As a result, some projects are not able to tap into American Recovery and Reinvestment Act (ARRA) or regional TE funds. For this reason, the MPO had to include on-road sidewalk projects from their 2030 LRTP in their regional pathways enhancement priority list. Reviewing ROW acquisition, and identifying problems and solutions sooner, may broaden the pool of eligible projects. The Florida Office of Greenways and Trails had to deal with similar acquisition issues during the early stages of the Florida Greenways and Trails Acquisition Program in the 1990's; however, many potential conflicts are not avoided through advanced review.

Possible Funding Source: Future County Transportation System Surtax

In the future, Lee County may consider adopting a Charter County and Regional Transportation System Surtax primarily for transit improvements, with the possibility of a portion of that revenue being dedicated toward bicycle and pedestrian improvements. It authorizes a qualifying county, under an inter-local agreement with a regional transit or transportation authority, to levy an additional one percent surtax on goods and services sold within the County if approved by a majority vote of the county electorate. The challenge lies in obtaining broad support from the community to pass the surtax. With our current economic climate this penny tax has been shelved. As circumstances change in the future, this option may be a viable source of funding to develop bicycle and pedestrian facilities.

It should be noted that the transportation system surtax, as it stands today, is not a perfect funding source for bicycle and pedestrian facilities. Currently, these funds can only be used for pedestrian and bicycling facilities if they are part of a larger road or transit project. The Florida MPOAC is currently researching state law to identify what changes may be applied to free up these funds for separated pathway facilities. If the law is revised during the 2011 Florida legislative session, the surtax could provide a significant new source of funds for bicycle and pedestrian facilities.

Innovative Funding and Federal Support

The USDOT/FHWA has spent over a decade researching and developing ways to eliminate obstacles to transportation infrastructure improvement and funding. Traditional grant-based funding is not enough to meet the demand for infrastructure maintenance and construction projects. The USDOT/FHWA maintains a number of non-grant funding programs aimed at supplementing the traditional grant-based systems. The USDOT/FHWA collectively refers to these non-grant based funding programs as "innovative funding".

Potential Implementation Strategies

The following definition is taken from the FHWA Innovative Funding Primer:

“Innovative Finance for transportation is a broadly defined term that encompasses a combination of specially designed techniques that supplement traditional highway financing methods. While many of these techniques may not be new to other sectors, their application to transportation is innovative.

Historically, through the Federal-aid program, FHWA has financed highways primarily through grants that generally cover up to 80 percent of project costs. However, because this approach alone cannot meet the nation's current and future transportation investment needs, U.S. DOT's innovative finance initiatives respond to the need to supplement - rather than replace - traditional financing techniques.

- The primary objectives of innovative finance are to:
- Maximize the ability of states and other project sponsors to leverage Federal capital for needed investment in the nation's transportation system;
- More effectively utilize existing funds;
- Move projects into construction more quickly than under traditional financing mechanisms; and
- Make possible major transportation investments that might not otherwise receive financing.”

Some federal innovative funding programs do not apply to stand-alone bicycle and pedestrian facility projects. However, facilities that are part of a roadway project would be eligible. As recommended for all funding opportunities, the key to utilizing innovative funding tools is to match specific projects to the proper funding source.

The table on the following pages is taken from the July 2002 Performance Review of U.S. DOT Innovative Finance Initiatives Final Report prepared for the USDOT/FHWA. The table summarizes criteria which can be used to match existing federal innovative funding programs to specific projects.

Potential Implementation Strategies

Exhibit QQ: Matching Innovative Finance Tools to Projects Table (USDOT/FHWA)

Tool	Project Characteristics				
	Size	Requires Revenue Potential?	Private Sponsor Eligible	Cash Flow or Leveraging Tool?	Notes and Examples
AC/PCAC	Any size	No	No	Cash Flow	Standard Federal-aid projects; particularly useful in conjunction with GARVEEs.
Tapered Match	Any size	No	No	Cash Flow	Useful for revenue streams that may take a while to develop (for example, a dedicated sales tax in an area around a new interchange). Cannot be used with AC or with GARVEEs.
Flexible Match	Any size	No		Cash Flow	Can attract/make use of partnerships with the private sector and with other public agencies.
Toll Credits	Any size	Yes (Tolling)	Yes	Cash Flow	Does not provide additional revenue, but simplifies accounting/provides flexibility. Cannot be used in states with no tolling.
GARVEEs	Generally sized for large projects (\$10 million or greater)	No	No	Leveraging	Good for long-term capital projects with broad support.
Section 129	Any size	Yes	Yes, if state decides	Leveraging	Good for capital projects with non-Federal revenue potential.
SIB	Any size, generally up to \$100 million depending on state capitalization	No, but restrictions apply to Federal-aid repayments	Yes, if state decides	Leveraging	Regionally and locally significant projects with some form of dedicated revenue source.
TIFIA	Minimum \$100 million or 1/2 of state apportionments	Yes	Yes	Leveraging	Major projects of national or regional significance.

Potential Implementation Strategies

Exhibit QQ Cont.: Matching Innovative Finance Tools to Projects Table (USDOT/FHWA)

Definitions	
AC	“Advance Construction” - States or local governments independently raise up-front capital required for a Federally approved project and preserve eligibility for future Federal-aid reimbursement for that project. At a later date, the state can obligate Federal-aid highway funds for reimbursement of the Federal share. This tool allows states to take advantage of access to a variety of capital sources, including its own funds, local funds, anticipation notes, revenue bonds, bank loans, etc., to speed project completion.
PCAC	“Partial Conversion of Advance Construction” - Process allowing states to begin a project with their own source of funding, and then incrementally obligate Federal funds.
Tapered Match	Permitting the Federal/non-Federal share of payments to vary over the life of a project, as long as the appropriate matching ratio is achieved by the end of the project.
Flexible Match	Any non-Federal match that is allowed under FHWA laws and regulations other than state and local cash contributions to a project. Flexible matches permitted under new regulations include use of private cash and in-kind contributions, publicly owned right-of-way, and funds from other Federal agencies.
GARVEEs	“Grant Anticipation Revenue Vehicle” - A GARVEE is any bond or other form of debt repayable, either exclusively or primarily, with future Federal-aid highway funds under Section 122 of Title 23 of the United States Code. Although the source of payment is Federal-aid funds, GARVEEs cannot be backed by a Federal guarantee, but are issued at the sole discretion of, and on the security of, the state issuing entity.
Section 129	Section 129 of Title 23 of U.S. Code permits states to use Federal-aid funds to make loans to any Federally eligible project. The loans must be repaid with a dedicated, non-Federal source.
SIB	“State Infrastructure Bank” - A state or multi-state revolving fund that provides loans, credit enhancement, and other forms of financial assistance to surface transportation projects.
TIFIA	“Transportation Infrastructure Finance and Innovation Act” - A new Federal transportation credit program authorized as part of TEA-21 that provides direct Federal loans, lines of credit, and loan guarantees provided through U.S.DOT to large projects of national significance, under criteria developed by Congress.

Proposed Bicycle & Pedestrian Network and Needs Plan

PART 7

The following section presents the Lee County Bicycle Pedestrian Network Plan and Needs Plan. It explains how the Network Plan was developed and how the high priority needs were prioritized.

The Network Plan and Needs Plan were developed using the three following steps – 1) Needs Assessment, 2) Network Development, and 3) the Prioritization of Needs.

NEEDS ASSESMENT

The Needs Analysis for this Plan was comprised of the following:

- Public Input
- Review of Existing Conditions and Existing Plans
- Gaps Analysis
- Safety and Crash Analysis
- Demonstration Projects
- Special Projects

Public Input

As part of the public involvement process, the project team worked with the PAC and general public to identify bicycle and pedestrian problems, issues or areas of concern. In addition, the public workshop was used to discuss needs and start identifying priority corridors.

Review of Existing Conditions & Existing Plans

The project team gathered extensive GIS data including:

- Existing bicycle and pedestrian facilities in the County
- Collectors and arterials & number of lanes
- Demographic information
- Traffic generators and points of interest
- Transit lines and stops
- Existing land uses
- Future land use maps
- Planning communities
- Parks, recreational and conservation areas
- User identified problem areas

Additionally, the project team gathered and reviewed existing plans such as the LRTP and its associated bicycle and pedestrian data, existing bicycle and pedestrian master plans from the City of Fort Myers, Sanibel and adjacent counties, local comprehensive plans and LDRs, proposed facility improvements from local governments, the Greenways and Blueways Master Plan from Lee County, and the Collier Lee Bi-County Regional Transportation Network – Pathways Component.

Gaps Analysis

As described previously in this report, the existing bicycle and pedestrian facilities were identified for all collectors and arterials eligible for federal funding. Once identified, they were properly classified and entered into a GIS database. Exhibits V and W in Part 4 of the master plan depict the existing bicycle and pedestrian facilities. Based on that information, gaps in bicycle and pedestrian facilities were identified and mapped. Exhibits JJ, KK and LL illustrate all the gaps in the existing bicycle and pedestrian system. All of these gaps represent facility needs. The overall needs were then reviewed and prioritized. The prioritization process is discussed further in the following section.

Safety and Crash Analysis

Pedestrian and bicycle crashes for the last 10 years were reviewed. The areas reviewed were those which have a higher incidence of crash and fatalities including, Fort Myers, North Fort Myers, Cape

Proposed Bicycle & Pedestrian Network and Needs Plan

Coral, and Bonita Springs. Roadways outside of these areas with a high number of isolated crashes were also reviewed.

Most of the evaluated roadways with high crashes have similar characteristics. They tend to be multi-lane, undivided roadways with bi-directional turn lanes, such as Cleveland Avenue/US 41 in Fort Myers and Old 41 Road in Bonita Springs. In general, these roadway facilities are situated in suburban areas where the blocks are long with large spacing between signals, and provide a minimal amount of designated mid-block crossings. Other characteristics of these roadway types include higher travel speeds and the wide intersection widths.

Pedestrians often try to minimize the distance of their trips and take the shortest path between two points. Due to this tendency, pedestrians cross at random mid-block locations to reach points of interest such as restaurants and shopping establishments, which are common along most of these roadways. Due to the limited amount of designated crossings, pedestrians are taking risks by crossing at undesignated locations along these roadways. The unfortunate combination of vehicles traveling at higher speeds and no median or refuge area for pedestrians creates very hazardous conditions.

A comprehensive evaluation of roadways with two-way left turn lanes within Lee County is recommended to determine the feasibility of the addition of raised medians along the roadway corridors with high numbers of pedestrian and bicycle crashes. Mid-block crossings should also be considered as a safety improvement for pedestrians and bicyclists along suitable roadways. The MPO Traffic Management and Operations Committee should be tasked with the responsibility of implementing this safety evaluation program

Demonstration Projects

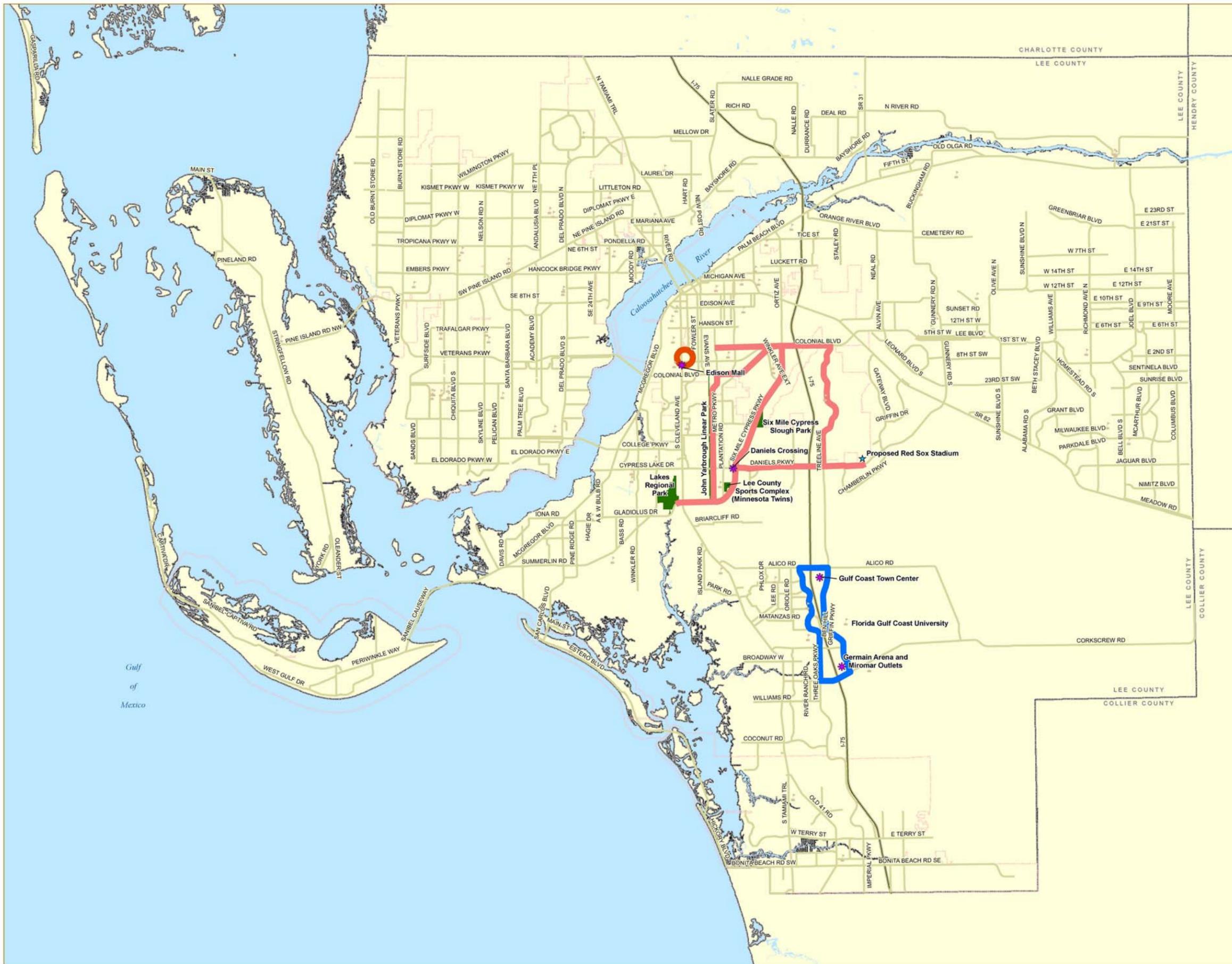
In analyzing existing conditions and safety issues, conducting the gaps analysis, and discussing needs with the PAC and project stakeholders, it became abundantly clear that bicycle and pedestrian needs go beyond the closing of existing gaps. These needs are related to improving user experience through the provision of high quality facilities that include a variety of facility types and amenities.

Acknowledging that closing facility gaps is the top priority for Lee County, it was decided that a select few demonstration projects could be used to address network quality issues. These projects could enhance user experience, provide more facility options, encourage tourism and economic activity, and create highly visible projects that could be used to educate, and encourage the public to use and support Lee County's Bicycle Pedestrian Network.

In coordination with PAC members and the MPO staff, three demonstration projects were identified. These projects are illustrated on the map on the following page.

Two of the proposed projects are bicycle routes, while the other is a Complete Streets project. The first, is the **Lee Tour de Parks Route**, which most notably interconnects several Lee County parks including Lakes Park, John Yarbrough Linear Park, Six-Mile Cypress Slough Park, North Colonial Linear Park and the two baseball parks home to the Boston Red Sox and Minnesota Twins spring training facilities. The second route is the **University Loop** which interconnects Florida Gulf Coast University, student housing areas, and commercial and entertainment centers such as Gulf Coast Town Center, Germain Arena, and the Miramar Outlets. Both of these routes would mostly utilize existing facilities, but could be significantly enhanced with painted bike lanes, bicycle boxes, wayfinding and signage, and amenities. The third project would be the **Winkler/Jefferson Complete Streets Demonstration Project** within the City of Ft. Myers. This project would interconnect two Complete Streets in an urban environment and could be used as an example of how roads within more urbanized areas can accommodate vehicular, pedestrian and bicycle traffic. As these projects are considered and programmed, usage statistics for pre- and post-improvements should be undertaken to measure impacts.

Additionally, when developing these demonstration projects, special attention should be given to interconnecting them through wayfinding and signage. This can be accomplished by using uniform signage and wayfinding, but also by providing directional signs that can guide users from one route to



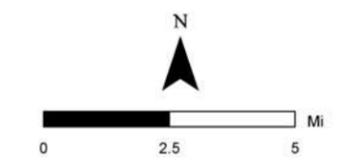
Legend

Demonstration Projects

- Lee Tour de Parks Route
- University Loop
- Winkler/Jefferson Complete Streets

Major Facilities
 Public Schools
 City Limits

**Exhibit RR:
DEMONSTRATION
PROJECTS**



Proposed Bicycle & Pedestrian Network and Needs Plan

the other. Florid Gulf Coast University and the various parks and recreational areas abutting these routes should be encouraged to provide facility interconnection and continuity in wayfinding and signage.

Special Projects

In addition to demonstration projects, other non-gap needs were identified. These needs include **spot improvements** as previously discussed, the opportunity for a cross-county “**Rails with Trails**” project that would utilize existing Seminole Rail Line ROW without impeding the potential for future light rail and Bus Rapid Transit, and the improvement of **Estero Boulevard**, which has been identified as a special roadway project in the LRTP. Each of these projects play a significant role in developing Lee County’s Bicycle and Pedestrian Network, but also represent projects that need additional study, significant funds, and considerable effort. However, it is important to identify them as needs in order to try to obtain special funding for these projects. As can be seen from Exhibit OO, numerous spot

Exhibit SS.: Priority Spot Improvements Table

Location	Problem	Improvement Needed
Edison Bridge: Base of North Bound Bridge where paved shoulder (breakdown lane) ends and Old 41 begins	Transition from segment with facilities to no facilities	Provide on-road bike lane or paved shoulder to Bay-shore Road
Rail Road Intersections	Facility gap	Extend existing bicycle and pedestrian facilities through the track crossing
West Bound Cape Coral Bridge	No bicycle facility	Needed breakdown lane or paved shoulder or "Bikes May Use Full Lane" signs
Metro Parkway, south of Winkler Avenue (in front of IRS Building)	Pedestrian facility gap	Fill in very short sidewalk gap
Hart Road , North Fort Myers	No pedestrian facilities	Sidewalk to connect to new community center
Fowler Street from Hanson Street to SR-82	No bicycle facilities	Temporary treatment until road is reconfigured as part of Metro Parkway corridor
Intersection of Daniels Parkway and Yarbrough Linear Park	No dedicated trail crossing at Daniels intersection	Improvements to allow trail continuity under bridge
Shared-use paths intersecting roadways (multiple)	Path cross-sections narrows down to pedestrian-scale intersection crossings	Enhance intersection ramps and refuge islands to accommodate pathway widths
Williams Road from Three Oaks High School to US 41	No bicycle facilities	Share the Road signs until facilities built
Daniels Parkway - multiple intersections	Keyhole lanes	Relocate bike lane between turning lanes and through lanes
Cypress Lake from US 41 to McGregor Boulevard	No bicycle facility	Temporary treatment until facility can be provided
Alvin Avenue from SR 82 to Banning Street	Facility gap	Provide paved shoulders to ensure continuity and consistency
Winkler from Cypress Lake Drive to Gladiolus Drive	Bicycle facility gap	Consider temporary treatment to link up existing facilities in north part of Winkler and Gladiolus
Hickory Boulevard	No paved shoulders or on-road bike lane	Consider temporary treatment or accelerate improvements
West bound Alico Road (I75 to Treeline Ave)	“Gutter mouth” encroaching paved should at 7 locations	Consider temporary treatment or accelerate improvements

Proposed Bicycle & Pedestrian Network and Needs Plan

improvements have been identified by the public. In an attempt to streamline this extensive list, PAC members and involved stakeholders provided a list of Priority Spot Improvements, which is presented in Exhibit SS below. The intent of the User Identified Spot Improvements Map and the Priority Spot Improvement list is to identify needs or deficiencies that could potentially be tackled in the short term with minimal effort or investment. Some of these items could be addressed with low cost, interim improvements such as restriping and signage that could provide immediate safety enhancements. The map and table should be shared with local jurisdictions so transportation or public works departments could evaluate those needs as part of their ongoing maintenance and operations responsibilities.

Exhibit TT: Potential Network Corridors and Connectors Table

<u>Network Corridors</u>	<u>Included Roadways</u>
Sanibel/Captiva to Palm Beach	Sanibel Causeway, Summerlin Road, Six Mile Cypress Expressway, Ortiz Avenue, and Palm Beach Boulevard
Charlotte to Lehigh	Veterans Parkway, Colonial Boulevard, and Lee Boulevard
Pine Island to Hendry	Pine Island Road and Bay Shore Road
South Cape to Buckingham	Cape Coral Parkway, College Parkway, Daniels Parkway, Gunnery Road, and Buckingham Road
Ft Myers to Collier	Old SR 41
Imperial to Treeline	Imperial Parkway, Three Oaks Parkway, Ben Hill Griffin Parkway, and Treeline Avenue
Sands Blvd-Surf Side Blvd	Eldorado Pkwy to Veterans Pkwy
Country Club Blvd	Cape Coral Parkway to Pine Island Road
DelPrado Blvd	Pine Island Road to N. Tamiami Trail
Old US 41	Del Prado Blvd to Pine Island Road
Bonita Beach Rd-Hickory Blvd-Estero Blvd-San Car	Old US 41 to Summerlin Road
Terry Street	Tamiami Trail to Bonita Grande Drive
Bell Blvd	Meadow Road to Sentinela Blvd
Joel Blvd	Lee Blvd to
Three Oaks Parkway	Estero Drive to Alico Road
Estero Pkwy	SCL Rail Road to Three Oaks Parkway
Winged Foot Drive	SCL Rail Road to Three Oaks Parkway
Gasparilla Road - Gulf Road	Boca Grande Causeway to Port Boca Grande

Proposed Bicycle & Pedestrian Network and Needs Plan

NETWORK DEVELOPMENT

In analyzing and identifying facility needs, it became evident that the needs far exceeded available funding. The extensive network of collectors and arterials also presented a significant challenge due to the sheer size of the network and the numerous facility gaps within that network. As a result, the project team decided to develop a Primary Network in order to establish a strong “backbone” network that could support a countywide bicycle and pedestrian system.

The Primary Network was developed through the evaluation of existing conditions and plans, review of potential corridors identified at the public workshop and through the gaps analysis.

Initial corridor alternatives were identified through a public workshop process. The workshop included citizen and agency participation with approximately 30 attendees and included a wide cross-section of age, gender and user types (i.e. recreational, commuter, fitness). As part of the workshop, the participants were divided into five subgroups and were asked to identify what they considered to be the most significant north-south and east-west bicycle and pedestrian corridors throughout the County. Attendees were tasked with identifying corridors that would provide access and connectivity to transit stops, parks, schools, residential neighborhoods, and commercial areas. They were also asked to identify continuous corridors that would link Lee County’s planning communities and adjacent counties, as well as provide long-rides that could meet the needs of fitness riders and commuters, and could be appealing to bicycling tourists. These corridors were analyzed by the project team to see if the corridors met the following criteria:

- Does it connect high density areas?
- Does it provide facilities in high crash areas?
- Does it connect or is it proximate to schools?
- Does it connect or is it proximate to parks and recreation areas?
- Does it connect or is it proximate to employment hubs?
- Does it connect or is it proximate to points of interest?
- Does it provide continuity and create a regional route?
- Does it benefit tourism and the economy?

Based upon this evaluation, a table and map of potential corridors were developed. The corridors that were identified are summarized in Exhibit TT, Potential Network Corridors and Connectors Table and Exhibit: UU, Potential Corridors Map.

The “Gaps Analysis” allowed the project team to further analyze potential corridors and examine facility needs on and off of those corridors. It is the plan’s intent that, eventually, all facility gaps will be addressed. However, due to funding constraints, it is not possible to complete all of these facilities in the short term. Therefore, a prioritization process was developed to differentiate the gap segments.

The prioritization analysis was conducted in a two-tier process, resulting in a Primary and Secondary Network. The Primary Network segments are most consistent with the plan’s vision statement and goals, and emphasize the near-term improvements needed. The Secondary Network is also important, and should be completed in support to the Primary Network. It is envisioned that the Secondary Network would begin filling out once the highest priorities are addressed. Additionally, facilities on the Secondary Network do not have the same regional significance as those on the Primary Network and may need to be addressed by local municipalities.

In general terms, the Primary Network can be thought of as a strategic assemblage of bicycle and pedestrian “arterial” facilities. The Primary Network would serve to connect the most significant population centers and points of interest, link to the public transit system, and provide the means to access much of the County via non-automotive means.



Legend

Potential Pedestrian and Bicycle Network

- Ft Myers to Collier
- Sanibel/Captiva to Palm Beach
- Charlotte to Lehigh
- Pine Island to Hendry
- South Cape to Buckingham
- Imperial/Treeline
- Connectors
- Off Road Trail

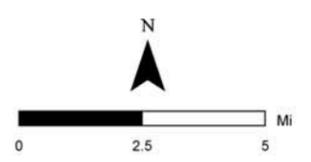
Fort Myers Corridor Alternatives

- Plantation Road / Veronica Shoemaker Blvd Alternative
- SCL Railroad Alternative
- Summerlin Road Alternative
- Metro Parkway Alternative

Railroads
 City Limits

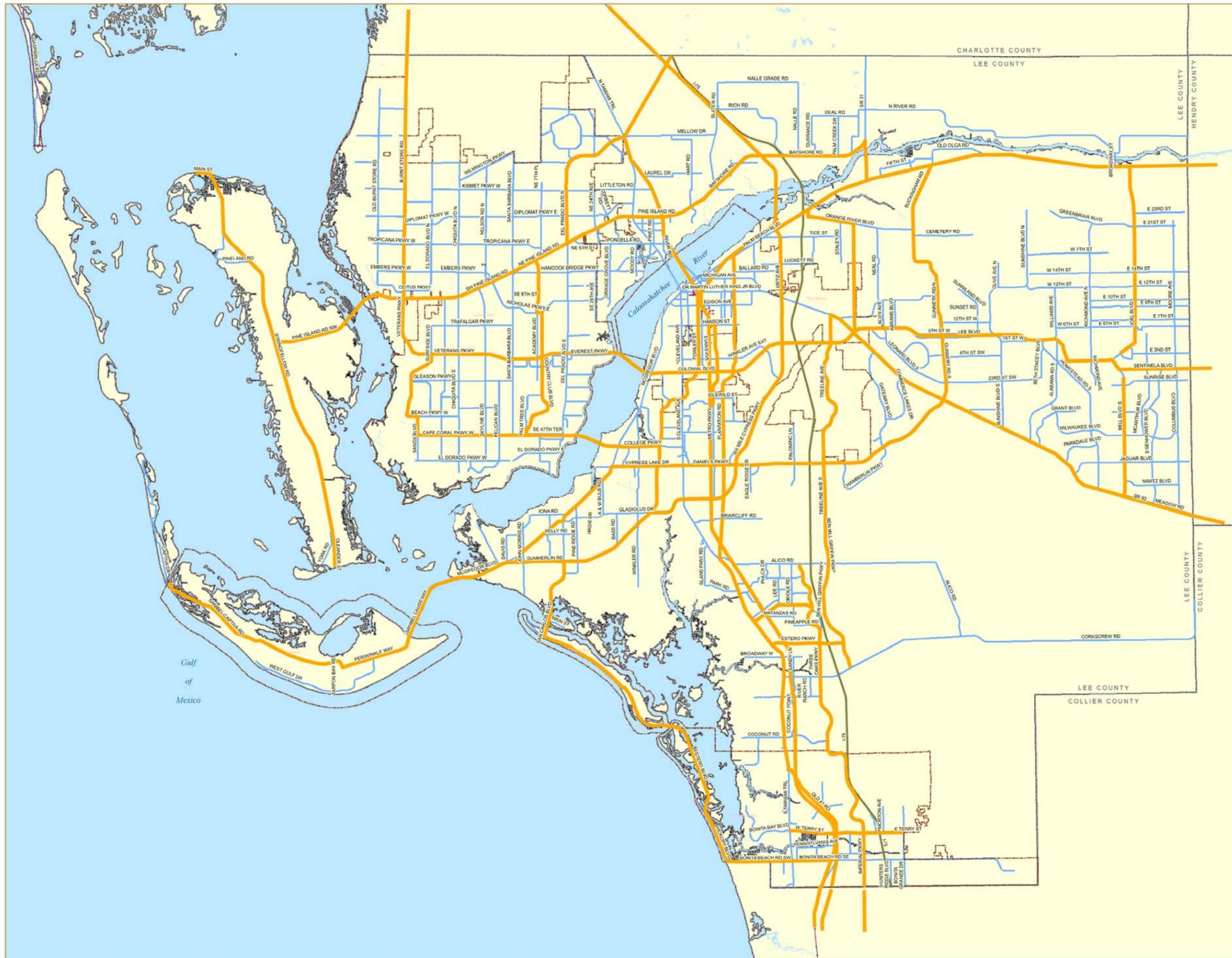
Exhibit UU:

POTENTIAL CORRIDORS



DRAFT

SEE FORT MYERS CORRIDOR ALTERNATIVES

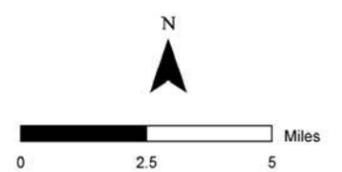


Legend

- Primary Network
- Secondary Network
- Railroads
- I-75
- City Limits

Exhibit VV:

**PRIMARY AND
SECONDARY
BICYCLE AND
PEDESTRIAN
NETWORK**



LEE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
MASTER PLAN

Proposed Bicycle & Pedestrian Network and Needs Plan

The Secondary Network can be thought of as bicycle and pedestrian “collector” facilities. Generally, this network is comprised of facilities with lower traffic volumes in mainly residential areas. This network would serve to distribute longer-distance trips from the Primary Network to individual neighborhoods.

PRIORITIZATION OF NEEDS

Each alternative considered for the master plan was analyzed against the evaluation criteria. A score was assigned to each segment, indicating the degree to which it meets the criteria. These individual scores were summarized so that an aggregate evaluation as to how the alternatives meet the goals of the project was developed. The segments with the highest final composite scores received top priority in the Prioritized Needs Plan.

The networks were first segregated into the Primary and Secondary Networks. To identify the Primary Network, a preliminary screening analysis was conducted. This analysis used fewer criteria than the full evaluation set. Key criteria used to develop the Primary Network were:

- connectivity to neighborhoods and points of interest
- facilities within high crash areas
- helps create major mobility corridors
- improves mobility for transit dependent populations

These reduced criteria were applied to all segments identified in the Gaps Maps with special attention given to the potential corridors identified by the public and project team. Based upon this analysis, the Primary Network was developed and analyzed in further detail. It should be noted that the Gaps Maps presented in this plan include both segments where there are no facilities whatsoever and segments where there are facilities on just one side of the road (except for Sanibel). For certain low speed, low volume roads, or within constrained ROWs, facilities on only one side of the road may be acceptable. However, busier arterials that are difficult to cross should provide bicycle and pedestrian facilities on both sides. When prioritizing needs, this issue was considered and should continue to be evaluated on a segment by segment basis as the MPO updates its priority list on an annual basis.

The Primary Network was analyzed to determine the relative priority of each segment gap found in the network. Each segment gap was evaluated according to criteria in the Exhibit YY to develop a final aggregate prioritization score. The results of this analysis are reported in Exhibit BBB, Prioritized Needs Plan and are also depicted on the Primary Network Needs Map (Exhibit WW) and the Pedestrian and Bicycle Priority Needs Maps, Exhibit ZZ and Exhibit AAA respectively. The resulting Prioritized Needs Plan should be used for funding and programming, with the highest priority segments and corridors receiving implementation funding the soonest.

PRIORITIZATION FLEXIBILITY

It should be understood that the evaluation criteria used to prioritize facility needs is meant to be flexible. It is assumed that changing circumstances such as modal shifts, roadway improvements, public sentiment and available funding will affect how improvements get prioritized. As such, the rankings presented in this report are not meant to be static. Every year, needs should be re-evaluated and ranking changes should be made to address changing circumstances. More specifically, any facility need identified as part of the Secondary Network Needs Map (see Exhibit XX) can be “bumped up” and included in the Prioritized Needs Plan if it is considered a significant need by local jurisdictions or if it is identified as a priority project to be considered for regional enhancement funding consistent with the adopted regional pathways map which is approved by the Joint Lee and Collier MPO Boards. Additionally, local roads eligible for Enhancement and Safe Routes to School funding can also be included within the MPOs Prioritized Needs Plan, even if not identified on the Primary or Secondary Network. Prioritization must remain flexible since there are often opportunities that present

Proposed Bicycle & Pedestrian Network and Needs Plan

themselves through grants, other construction activities, or left over funds which can allow the completion of projects that were initially ranked lower than others. Cost and need should be balanced—some lower priority projects should be re-ranked and constructed if they are inexpensive, easy to fund or if the timing is right.

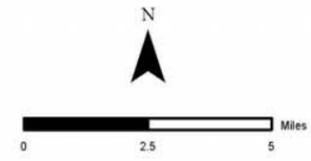


Legend

- Bike and Pedestrian Gaps
- Primary Network
- Secondary Network
- I-75
- City Limits

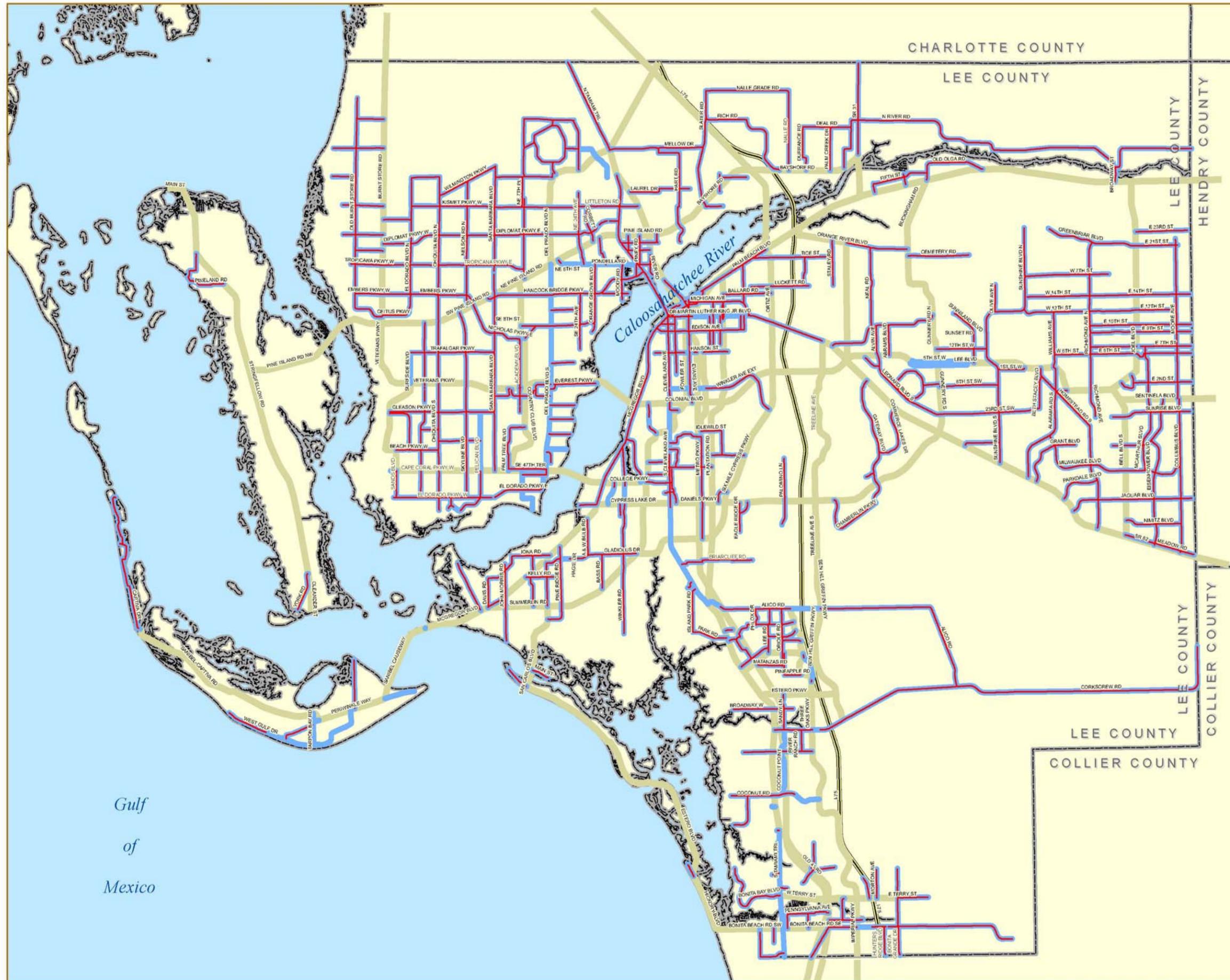
Exhibit WW:
BIKE AND PEDESTRIAN FACILITIES GAPS FOR PRIMARY NETWORK

Gulf of Mexico



LEE COUNTY MPO
 METROPOLITAN PLANNING ORGANIZATION

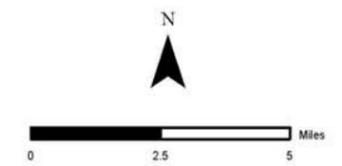
LEE COUNTY MPO
BICYCLE PEDESTRIAN MASTER PLAN



Legend

- Bike_Ped_Gaps_Secondary_Network
- Secondary Network
- Primary Network
- I-75

Exhibit XX:
BIKE AND PEDESTRIAN FACILITIES GAPS FOR SECONDARY NETWORK



LEE COUNTY
MPO
 METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
 MASTER PLAN

Proposed Bicycle & Pedestrian Network and Needs Plan

Exhibit YY: Evaluation Criteria Summary

GOAL	EVLAUATION CRITERIA	SUMMARY
SAFETY		
Reduce crashes at high crash locations		Degree to which the alternative increases safety at identified high crash locations
Provide safe routes to school		Does the alternative help to increase safety of school access, and might it qualify for Federal Safer Routes to School Funding
Provide facilities in areas of high demand		Is there evidence of need for a facility in this location, and does the alternative help to fill the need
Improve access to transit		Does the alternative intersect with existing or proposed transit routes
CONNECTIVITY		
Provide access to recreational areas		Does the alternative connect to major recreational areas
Provide access to major community amenities		Does the alternative provide access to major community amenities, such as cultural venues, shopping districts, or entertainment areas
Provide access to beach areas		Degree to which the alternative provide increased beach access
Bridge natural and man-made barriers		Does the alternative help to bridge major barriers that currently inhibit bike or pedestrian corridor usage
Provide a network of major trails		Does the alternative help to promote the development of a network of major spine or trunk routes that will serve as the “bicycle and pedestrian arterial network” that would carry the bulk of longer-distance non-motorized travel
Complete missing links		Degree to which the alternative fills in gaps in the existing network to promote increased usability of existing facilities
MOBILITY		
Provide modal options		Does the alternative support the larger network in a way that helps to promote increased choice on non-SOV modal options
Identify major mobility corridors		Is the alternative within a major mobility corridor
Provide mobility options for low income and/or transit dependent residents		Does the alternative assist in creating travel options for those with limited automobile mobility
Improve compliance with the Americans with Disabilities Act		Does the alternative provide additional access to system for handicapped residents and visitors, or fix existing non-compliance
ECONOMIC DEVELOPMENT		
Provide increased job opportunities		Degree to which the alternative increases safety at identified high crash locations
Increase commuter travel options		Does the alternative help to increase safety of school access, and might it qualify for Federal Safer Routes to School Funding
Promote redevelopment in infill areas		Is there evidence of need for a facility in this location, and does the alternative help to fill the need
Attract tourism		Does the alternative intersect with existing or proposed transit routes
Improve desirability of Lee County		Does the alternative help to increase the desirability of Lee County as a live-work-play community



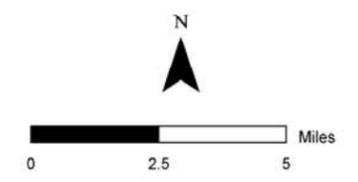
Legend

Pedestrian Priority Needs

- High
- Medium
- Low
- I-75
- City Limits
- Collector and Arterial Roads

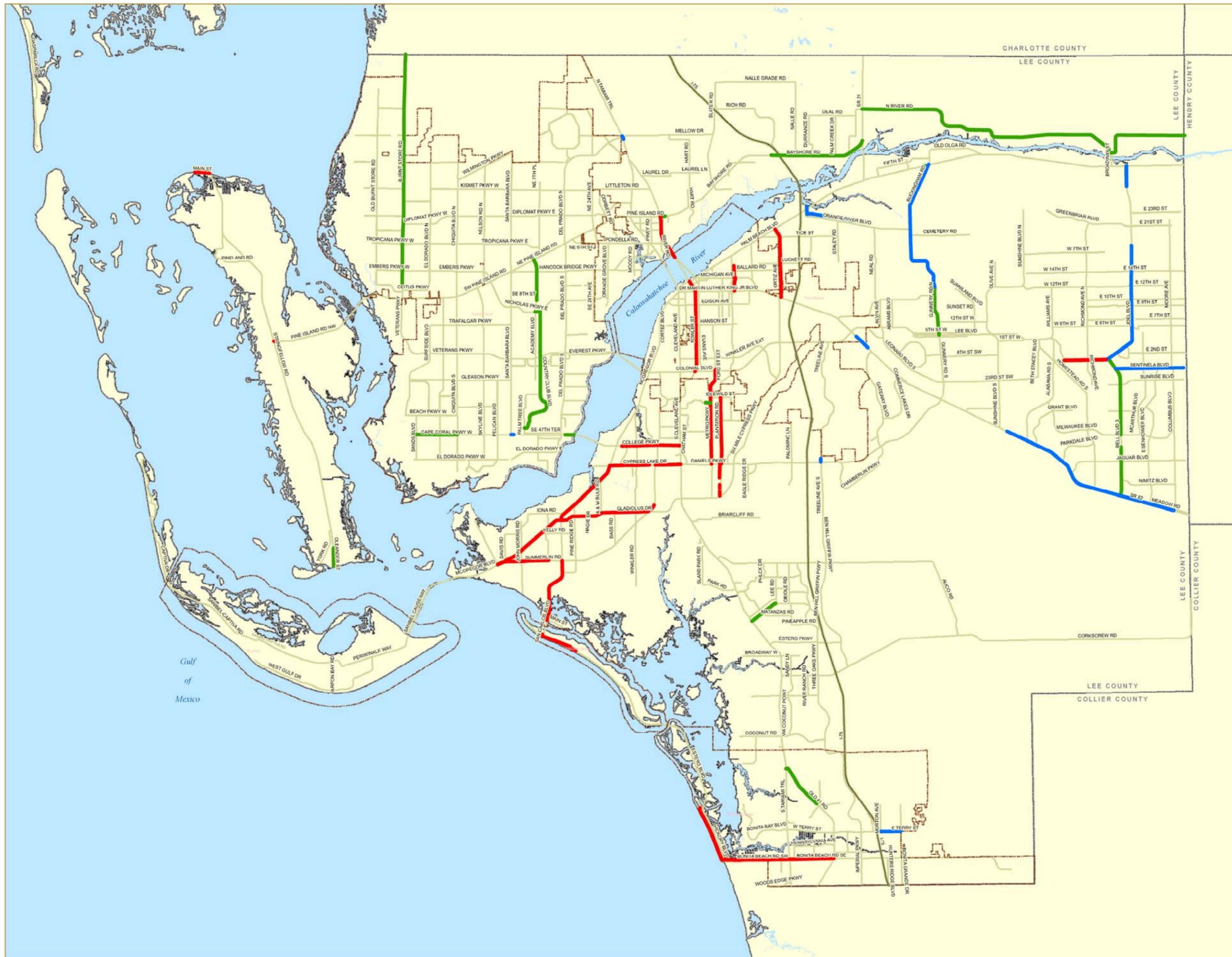
Exhibit ZZ:

**PEDESTRIAN
PRIORITY
NEEDS**



LEE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
MASTER PLAN



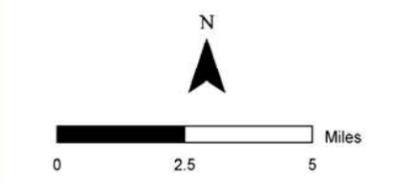
Legend

Bicycle Priority Needs

- High
- Medium
- Low
- I-75
- City Limits
- Collector and Arterial Roads

Exhibit AAA:

BICYCLE PRIORITY NEEDS



LEE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION

LEE COUNTY MPO
BICYCLE PEDESTRIAN
MASTER PLAN

Exhibit BBB
Prioritized Needs Plan

PROJ NO.	IN FIN FEAS	ROADNAME	LENGTH (FT)	FROM	TO	JURISDICTION	IMPROVE. TYPE	TOTAL SCORE	SAFETY	CONNECT-IVITY	MOBIL-ITY	ECO-NOMIC	FEASIBIL-ITY	COST/ FT	SIDE OF ROAD	TOTAL COST	UNFUNDED	FUNDED
1		PALM BEACH BLVD	87,989	LEXINGTON AVE	COUNTY LINE	STATE	SHARED-USE PATH	16	4	4	4	4	0	\$60	2	\$10,558,716	\$10,558,716	\$0
2		SW PINE ISLAND RD	22,634	VETERANS PKWY	SANTA BARBARA BLVD	STATE	SHARED-USE PATH	16	4	5	3	4	0	\$60	2	\$2,716,117	\$2,716,117	\$0
3		BAYSHORE RD	6,769	N TAMIAMI TRL	WHALEYS DR	STATE	SHARED-USE PATH	15	4	4	3	4	0	\$60	1	\$406,164	\$406,164	\$0
4		SUMMERLIN ROAD	13,112	PINE RIDGE RD	WINKLER RD	COUNTY	SHARED-USE PATH	15	4	4	3	4	0	\$60	1	\$786,725	\$786,725	\$0
5		VERONICA S SHOEMAKER BLVD	8,290	MARION ST	MLK BLVD	FORT MYERS	SHARED-USE PATH	15	4	3	4	4	0	\$60	2	\$994,747	\$994,747	\$0
6		OLEANDER ST	4,725	SANIBEL BLVD	FIRST AVE	COUNTY	SIDEWALK	15	3	5	3	4	0	\$40	2	\$377,985	\$377,985	\$0
7		PINE ISLAND RD NW	28,859	STRINGFELLOW RD	VETERANS PKWY	COUNTY	SHARED-USE PATH	15	3	5	3	4	0	\$60	2	\$3,463,097	\$3,463,097	\$0
8	Y	ESTERO BLVD	11,618	SAN CARLOS BLVD	VOORHIS ST	COUNTY	BIKE LANE	15	4	5	3	3	0	\$27	2	\$627,346	\$0	\$627,346
9	Y	FOWLER ST	18,314	FIRST ST	COLONIAL BLVD	STATE	BIKE LANE	15	4	4	3	4	0	\$27	2	\$988,957	\$0	\$988,957
10		PLANTATION RD	4,157	DANIELS PKWY	BEN C PRATT SIX MILE CYPRESS	COUNTY	SHARED-USE PATH	15	4	4	3	4	0	\$60	2	\$498,827	\$498,827	\$0
11		PLANTATION RD	4,157	DANIELS PKWY	BEN C PRATT SIX MILE CYPRESS	COUNTY	BIKE LANE	15	4	4	3	4	0	\$27	2	\$224,472	\$224,472	\$0
12		N TAMIAMI TRL	8,991	PINE ISLAND RD	BRIDGE	STATE	BIKE LANE	15	4	4	3	4	0	\$27	2	\$485,521	\$485,521	\$0
13		CYPRESS LAKE DR	5,011	SUMMERLIN RD	S CLEVELAND AVE	COUNTY	BIKE LANE	15	4	4	3	4	0	\$27	2	\$270,600	\$270,600	\$0
14		PLANTATION RD	12,303	IDLEWILD ST	SIX MILE CYPRESS	COUNTY	SIDEWALK	14	3	4	3	4	0	\$40	2	\$984,225	\$984,225	\$0
15		COLONIAL BLVD	10,679	METRO PKWY	ORTIZ AVE	STATE	SHARED-USE PATH	14	3	4	3	4	0	\$60	1	\$640,754	\$640,754	\$0
16		LEE RD	10,679	SR 82	SUNSHINE BLVD	STATE	SHARED-USE PATH	14	3	4	3	4	0	\$60	1	\$640,754	\$640,754	\$0
17	Y	FOWLER ST	6,344	MLK BLVD	HANSON ST	STATE	SIDEWALK	14	4	3	3	4	0	\$40	2	\$507,554	\$0	\$507,554
18		STRINGFELLOW RD	3,597	MAIN ST	BARRANCAS AVE	COUNTY	SHARED-USE PATH	14	3	5	3	3	0	\$60	2	\$431,598	\$431,598	\$0
19		NE PINE ISLAND RD	25,788	SANTA BARBARA BLVD	HERRON RD	COUNTY	SHARED-USE PATH	14	4	3	3	4	0	\$60	2	\$3,094,521	\$3,094,521	\$0
20		CAPE CORAL BRIDGE RD	10,162	SE 17TH PL	MCGREGOR BLVD	COUNTY	SHARED-USE PATH	14	3	4	3	4	0	\$60	2	\$1,219,450	\$1,219,450	\$0
21		SANIBEL CAUSEWAY	15,301	CAUSEWAY BLVD	MCGREGOR BLVD	COUNTY	SHARED-USE PATH	14	1	6	3	4	0	\$60	2	\$1,836,120	\$1,836,120	\$0
22		MIDPOINT BRIDGE	8,450	VETERANS PKWY	COLONIAL BLVD	COUNTY	SHARED-USE PATH	14	3	5	3	3	0	\$60	2	\$1,013,953	\$1,013,953	\$0
23	Y	METRO PKWY	6,834	COLONIAL BLVD	DANIELS PKWY	STATE	BIKE LANE	14	3	4	3	4	0	\$27	2	\$369,029	\$0	\$369,029
24		COLLEGE PKWY	7,004	MCGREGOR BLVD	US 41	COUNTY	BIKE LANE	14	4	3	3	4	0	\$27	2	\$378,224	\$378,224	\$0
25		SAN CARLOS BLVD	13,070	SUMMERLIN RD	MAIN ST	STATE	BIKE LANE	14	3	5	3	3	0	\$27	2	\$705,779	\$705,779	\$0

Exhibit BBB
Prioritized Needs Plan

PROJ NO.	IN FIN FEAS	ROADNAME	LENGTH (FT)	FROM	TO	JURISDICTION	IMPROVE. TYPE	TOTAL SCORE	SAFETY	CONNECT-IVITY	MOBIL-ITY	ECO-NOMIC	FEASIBIL-ITY	COST/ FT	SIDE OF ROAD	TOTAL COST	UNFUNDED	FUNDED
26	Y	BONITA BEACH RD	21,593	HICKORY BLVD	OLD 41 RD	COUNTY	BIKE LANE	14	3	4	3	4	0	\$27	2	\$1,165,995	\$0	\$1,165,995
27		SUMMERLIN RD/MCGREGOR BLVD	11,176	SHELL POINT BLVD	KELLY COVE DR	COUNTY	SHARED-USE PATH	14	2	4	3	5	0	\$60	1	\$670,587	\$670,587	\$0
28		VERONICA S SHOEMAKER BLVD	5,023	PATRICK AVE	MLK BLVD	FORT MYERS	SHARED-USE PATH	14	4	3	3	4	0	\$60	2	\$602,763	\$602,763	\$0
29		VERONICA S SHOEMAKER BLVD	5,023	PATRICK AVE	MLK BLVD	FORT MYERS	BIKE LANE	14	4	3	3	4	0	\$27	2	\$271,243	\$271,243	\$0
30		ORTIZ AVE	13,653	PALM BEACH BLVD	MLK BLVD	COUNTY	SHARED-USE PATH	14	3	3	4	4	0	\$60	2	\$1,638,381	\$1,638,381	\$0
31	Y	ORTIZ AVE	13,653	PALM BEACH BLVD	MLK BLVD	COUNTY	BIKE LANE	14	3	3	4	4	0	\$27	2	\$737,271	\$0	\$737,271
32		PLANTATION RD	12,303	IDLEWILD ST	SIX MILE CYPRESS	COUNTY	BIKE LANE	14	3	4	3	4	0	\$27	2	\$664,352	\$664,352	\$0
33		US 41	8,297	HICKORY	BROADWAY	STATE	SHARED-USE PATH	13	2	4	3	4	0	\$60	1	\$497,820	\$497,820	\$0
34		GLADIOLUS DR	3,979	MAIDA LN	S TAMIAMI TRL	COUNTY	SHARED-USE PATH	13	2	4	3	4	0	\$60	1	\$238,721	\$238,721	\$0
35	Y	US 41	848	LYCHEE LN	CORKSCREW RD	STATE	SIDEWALK	13	3	3	3	4	0	\$40	1	\$33,927	\$0	\$33,927
36	Y	METRO PKWY	2,279	LANDING VIEW RD	DANLEY DR	STATE	SIDEWALK	13	3	3	3	4	0	\$40	2	\$182,354	\$0	\$182,354
37		MAIN ST	2,918	BOCA VISTA CT	STRINGFELLOW RD	COUNTY	SHARED-USE PATH	13	2	5	3	3	0	\$60	2	\$350,218	\$350,218	\$0
38		MCGREGOR BLVD	9,251	SANIBEL CAUSEWAY	SHELL POINT BLVD	COUNTY	SHARED-USE PATH	13	2	4	3	4	0	\$60	2	\$1,110,094	\$1,110,094	\$0
39		SR 31	7,887	BAYSHORE RD	PALM BEACH BLVD	STATE	SHARED-USE PATH	13	3	5	3	2	0	\$60	2	\$946,382	\$946,382	\$0
40		PINE ISLAND RD NW	1,120	STRINGFELLOW	AVENUE B	COUNTY	SHARED-USE PATH	13	3	4	3	3	0	\$60	2	\$134,352	\$134,352	\$0
41		CR 867	14,034	SUMMERLIN RD	MCGREGOR BLVD	COUNTY	BIKE LANE	13	2	5	3	3	0	\$27	2	\$757,836	\$757,836	\$0
42		MCGREGOR BLVD	14,956	CR 867	CYPRESS LAKE DR	STATE	BIKE LANE	13	2	5	3	3	0	\$27	2	\$807,624	\$807,624	\$0
43		MAIN ST	2,918	BOCA VISTA CT	STRINGFELLOW RD	COUNTY	SHARED-USE PATH	13	2	5	3	3	0	\$60	2	\$350,218	\$350,218	\$0
44		LEELAND HGTS BLVD	8,279	LEE BLVD	JOEL BLVD	COUNTY	BIKE LANE	13	4	3	3	3	0	\$27	2	\$447,066	\$447,066	\$0
45		HICKORY BLVD	11,329	ESTERO BLVD	BONITA BEACH RD	COUNTY	SHARED-USE PATH	13	3	4	3	3	0	\$60	2	\$1,359,520	\$1,359,520	\$0
46		HICKORY BLVD	11,329	ESTERO BLVD	BONITA BEACH RD	COUNTY	BIKE LANE	13	3	4	3	3	0	\$27	2	\$611,784	\$611,784	\$0
47		DANIELS PKWY	14,870	SIX MILE CYPRESS PKWY	JETPORT COMMERCE PKWY	COUNTY	SHARED-USE PATH	12	3	4	3	2	0	\$60	1	\$892,192	\$892,192	\$0
48		PALM TREE BLVD	846	SE 46TH TER	SE 47TH TER	CAPE CORAL	SIDEWALK	12	3	2	3	4	0	\$40	2	\$67,657	\$67,657	\$0
49		CULTURAL PARK BLVD	596	NE PINE ISLAND RD	NE PINE ISLAND LN	CAPE CORAL	SIDEWALK	12	3	2	3	4	0	\$40	2	\$47,646	\$47,646	\$0
50		ESTERO BLVD	17,151	ESTRELLITA DR	HICKORY BLVD	COUNTY	SHARED-USE PATH	12	2	4	3	3	0	\$60	2	\$2,058,118	\$2,058,118	\$0

Exhibit BBB
Prioritized Needs Plan

PROJ NO.	IN FIN FEAS	ROADNAME	LENGTH (FT)	FROM	TO	JURISDICTION	IMPROVE. TYPE	TOTAL SCORE	SAFETY	CONNECT-IVITY	MOBIL-ITY	ECO-NOMIC	FEASIBIL-ITY	COST/ FT	SIDE OF ROAD	TOTAL COST	UNFUNDED	FUNDED
51		DANIELS PKWY	2,668	S TAMIAMI TRL	METRO PKWY	COUNTY	SHARED-USE PATH	12	2	3	3	4	0	\$60	1	\$160,070	\$160,070	\$0
52	Y	METRO PKWY	484	WINKLER AVE	CENTER POINTE DR	STATE	SIDEWALK	12	3	2	3	4	0	\$40	1	\$19,364	\$0	\$19,364
53		W TERRY ST	476	RAIL LINE	OLD 41 RD	BONITA SPRINGS	SHARED-USE PATH	12	4	3	3	2	0	\$60	2	\$57,122	\$57,122	\$0
54		VETERANS PKWY	9,404	DEL PRADO BLVD	MIDPOINT BRIDGE	COUNTY	SHARED-USE PATH	12	3	3	3	3	0	\$60	2	\$1,128,421	\$1,128,421	\$0
55		ORANGE RIVER BLVD	10,645	PALM BEACH BLVD	FPL ACCESS RD	COUNTY	SHARED-USE PATH	12	3	2	4	3	0	\$60	2	\$1,277,379	\$1,277,379	\$0
56		DANLEY DR	570	10 MILE CANAL	METRO PKWY	COUNTY	SHARED-USE PATH	12	2	3	3	4	0	\$60	2	\$68,459	\$68,459	\$0
57		CULTURAL PARK BLVD	8,163	NE PINE ISLAND RD	SE 9TH ST	CAPE CORAL	BIKE LANE	12	3	4	3	2	0	\$27	2	\$440,827	\$440,827	\$0
58		DANLEY DR	1,000	6TH ST	METRO PKWY	COUNTY	SHARED-USE PATH	12	2	3	3	4	0	\$60	2	\$120,000	\$120,000	\$0
59		OLEANDER ST	3,501	FIRST AVE	EIGHTH AVE	COUNTY	BIKE LANE	12	3	3	3	3	0	\$27	2	\$189,044	\$189,044	\$0
60		VETERANS PKWY	5,258	SANTA BARBARA BLVD	COUNTRY CLUB BLVD	COUNTY	SHARED-USE PATH	11	4	2	3	2	0	\$60	2	\$630,940	\$630,940	\$0
61		VETERANS PKWY	1,559	SW 3RD PL	SW 2ND AVE	COUNTY	SHARED-USE PATH	11	4	2	3	2	0	\$60	2	\$187,071	\$187,071	\$0
62		SIX MILE CYPRESS PKWY	307	CHALLENGER BLVD	CYPRESS GARDENS LOOP	COUNTY	SHARED-USE PATH	11	2	4	3	2	0	\$60	1	\$18,439	\$18,439	\$0
63		ESTERO PKWY	7,232	US 41	THREE OAKS PKWY	COUNTY	SHARED-USE PATH	11	2	2	3	4	0	\$60	2	\$867,788	\$867,788	\$0
64		HANSON ST	1,717	INDUSTRIAL AVE	METRO PKWY	FORT MYERS	SIDEWALK	11	3	2	3	3	0	\$40	2	\$137,374	\$137,374	\$0
65		BAYSHORE RD	19,235	PARK 78 DR	SR 31	STATE	SHARED-USE PATH	11	1	4	3	3	0	\$60	2	\$2,308,160	\$2,308,160	\$0
66		METRO PKWY	18,682	COLONIAL BLVD	CYPRESS LAKES DR	STATE	SIDEWALK	11	2	2	3	4	0	\$40	2	\$1,494,560	\$1,494,560	\$0
67		METRO PKWY	3,716	HANSON ST	WAREHOUSE RD	STATE	SIDEWALK	11	2	2	3	4	0	\$40	2	\$297,249	\$297,249	\$0
68		PINE CHASE DR	5,970	THREE OAKS PKWY	THREE OAKS PKWY	COUNTY	SHARED-USE PATH	11	4	2	3	2	0	\$60	2	\$716,432	\$716,432	\$0
69		BAYSHORE RD	811	N TAMIAMI TRL	MAGNOLIA DR	STATE	SHARED-USE PATH	11	4	2	3	2	0	\$60	1	\$48,677	\$48,677	\$0
70		BAYSHORE RD	19,280	PARK 78 DR	SR 31	STATE	SHARED-USE PATH	11	3	3	3	2	0	\$60	2	\$2,313,600	\$2,313,600	\$0
71		CR 867	615	MCGREGOR BLVD	PORT COMFORT RD	COUNTY	SHARED-USE PATH	11	1	4	3	3	0	\$60	1	\$36,875	\$36,875	\$0
72		COUNTRY CLUB BLVD	25,956	NICHOLAS PKWY	PALM TREE BLVD	CAPE CORAL	BIKE LANE	11	3	3	3	2	0	\$27	2	\$1,401,648	\$1,401,648	\$0
73		OLD 41 RD	9,472	S TAMIAMI TRL	COCKLESHELL CT	BONITA SPRINGS	BIKE LANE	11	3	2	3	3	0	\$27	2	\$511,496	\$511,496	\$0
74		GUNNERY RD N	9,090	BUCKINGHAM RD	LEE BLVD	COUNTY	BIKE LANE	11	4	2	3	2	0	\$27	2	\$490,833	\$490,833	\$0
75		NICHOLAS PKWY E	991	CULTURAL PARK BLVD	COUNTRY CLUB BLVD	CAPE CORAL	BIKE LANE	11	2	3	3	3	0	\$27	2	\$53,496	\$53,496	\$0

Exhibit BBB
Prioritized Needs Plan

PROJ NO.	IN FIN FEAS	ROADNAME	LENGTH (FT)	FROM	TO	JURISDICTION	IMPROVE. TYPE	TOTAL SCORE	SAFETY	CONNECT-IVITY	MOBIL-ITY	ECO-NOMIC	FEASIBIL-ITY	COST/ FT	SIDE OF ROAD	TOTAL COST	UNFUNDED	FUNDED
76		OLD 41 RD	1,108	S TAMIAMI TRL	STRIKE LN	BONITA SPRINGS	SIDEWALK	10	2	2	3	3	0	\$40	1	\$44,302	\$44,302	\$0
77		STRINGFELLOW RD	2,334	YORK RD	SANIBEL BLVD	COUNTY	SIDEWALK	10	2	2	3	3	0	\$40	2	\$186,718	\$186,718	\$0
78		OLD 41 RD	792	N TAMIAMI TRL	SAN SOUCI DR	STATE	SHARED-USE PATH	10	2	2	3	3	0	\$60	2	\$95,046	\$95,046	\$0
79		PALM BEACH BLVD	438	CARTAGENA AVE	LORING WAY	STATE	SHARED-USE PATH	10	3	2	3	2	0	\$60	1	\$26,260	\$26,260	\$0
80		PALM BEACH BLVD	1,974	MORSE PLAZA	I-75	STATE	SHARED-USE PATH	10	3	2	2	3	0	\$60	2	\$236,926	\$236,926	\$0
81	Y	BURNT STORE RD	46,249	COUNTY LINE	CEITUS PKWY	COUNTY	SHARED-USE PATH	10	2	3	3	2	0	\$60	2	\$5,549,877	\$0	\$5,549,877
82		BELL BLVD S	25,496	JOEL BLVD	SR 82	COUNTY	BIKE LANE	10	3	2	3	2	0	\$27	2	\$1,376,787	\$1,376,787	\$0
83		CAPE CORAL PKWY W	8,162	SANDS BLVD	CHIQUITA BLVD	CAPE CORAL	BIKE LANE	10	2	3	3	2	0	\$27	2	\$440,770	\$440,770	\$0
84		NORTH RIVER RD	63,000	BAYSHORE RD	JOEL BLVD	COUNTY	BIKE LANE	10	2	3	3	2	0	\$27	2	\$3,402,000	\$3,402,000	\$0
85		SAN CARLOS BLVD	5,824	S TAMIAMI TRL	LEE RD	COUNTY	BIKE LANE	10	2	3	3	2	0	\$27	2	\$314,469	\$314,469	\$0
86		CAPE CORAL BRIDGE RD	1,724	WAIKIKI AVE	BRIDGE	COUNTY	SHARED-USE PATH	10	3	2	3	2	0	\$60	2	\$206,891	\$206,891	\$0
87		VETERANS PKWY	605	SW 11TH AVE	SKYLINE BLVD	COUNTY	SHARED-USE PATH	9	2	2	3	2	0	\$60	1	\$36,309	\$36,309	\$0
88		TREELINE AVE	3,363	COLONIAL BLVD	PELICAN PRESERVE BLVD	COUNTY	SHARED-USE PATH	9	2	2	3	2	0	\$60	1	\$201,776	\$201,776	\$0
89		BELL BLVD S	26,454	JOEL BLVD	SR 82	COUNTY	SIDEWALK	9	3	2	3	1	0	\$40	2	\$2,116,290	\$2,116,290	\$0
90		SANDS BLVD	3,831	BEACH PKWY W	CAPE CORAL PKWY	CAPE CORAL	SIDEWALK	9	1	2	3	3	0	\$40	2	\$306,471	\$306,471	\$0
91	Y	SR 82	74,932	COLONIAL BLVD	COUNTY LINE	STATE	SHARED-USE PATH	9	1	3	3	2	0	\$60	2	\$8,991,893	\$0	\$8,991,893
92		CAPE CORAL PKWY W	4,751	SAND BLVD	AGUALINDA BLVD	CAPE CORAL	SIDEWALK	9	1	2	3	3	0	\$40	2	\$380,071	\$380,071	\$0
93		JOEL BLVD	30,293	PALM BEACH BLVD	E 6TH ST	COUNTY	SIDEWALK	9	1	3	3	2	0	\$40	2	\$2,423,442	\$2,423,442	\$0
94		JOEL BLVD	8,033	PALM BEACH BLVD	TUCKAHOE RD	COUNTY	BIKE LANE	9	1	3	3	2	0	\$27	2	\$433,771	\$433,771	\$0
95		JOEL BLVD	25,379	E 18TH ST	LEELAND HEIGHTS BLVD	COUNTY	BIKE LANE	9	2	2	3	2	0	\$27	2	\$1,370,482	\$1,370,482	\$0
96		CAPE CORAL PKWY E	546	SANTA BARBARA BLVD	SE 1ST PL	CAPE CORAL	BIKE LANE	9	2	2	3	2	0	\$27	2	\$29,467	\$29,467	\$0
97	Y	BUCKINGHAM RD	28,899	PALM BEACH BLVD	GUNNERY RD	COUNTY	BIKE LANE	9	2	2	3	2	0	\$27	2	\$1,560,534	\$0	\$1,560,534
98		ORANGE RIVER BLVD	10,645	PALM BEACH BLVD	FPL ACCESS RD	COUNTY	SHARED-USE PATH	9	2	2	3	2	0	\$60	2	\$1,277,379	\$1,277,379	\$0
99		ORANGE RIVER BLVD	10,645	PALM BEACH BLVD	FPL ACCESS RD	COUNTY	BIKE LANE	9	2	2	3	2	0	\$27	2	\$574,820	\$574,820	\$0
100		E TERRY ST	4,722	SOUTHERN PINES DR	BONITA GRANDE DR	BONITA SPRINGS	SHARED-USE PATH	8	0	3	3	2	0	\$60	2	\$566,621	\$566,621	\$0

Exhibit BBB
Prioritized Needs Plan

PROJ NO.	IN FIN FEAS	ROADNAME	LENGTH (FT)	FROM	TO	JURISDICTION	IMPROVE. TYPE	TOTAL SCORE	SAFETY	CONNECT-IVITY	MOBIL-ITY	ECO-NOMIC	FEASIBIL-ITY	COST/ FT	SIDE OF ROAD	TOTAL COST	UNFUNDED	FUNDED
101	Y	BURNT STORE RD	46,816	COUNTY LINE	CEITUS PKWY	COUNTY	SHARED-USE PATH	8	1	3	3	1	0	\$60	2	\$5,617,962	\$0	\$5,617,962
102		BUCKINGHAM RD	9,138	DRAWDY CT	BINGHAMPTON DR	COUNTY	SIDEWALK	8	1	2	3	2	0	\$40	2	\$731,034	\$731,034	\$0
103	Y	SR 82	3,144	SILVER BIRCH WAY	WALLACE AVE	STATE	SHARED-USE PATH	8	1	2	3	2	0	\$60	1	\$188,647	\$0	\$188,647
104		TREELINE AVE S	684	HEARTWOOD BLVD	DANIELS PKWY	COUNTY	BIKE LANE	8	1	2	3	2	0	\$27	1	\$18,471	\$18,471	\$0
105	Y	SR 82	37,660	SUNSHINE BLVD S	COLUMBUS BLVD	STATE	SHARED-USE PATH	8	0	3	3	2	0	\$60	2	\$4,519,186	\$0	\$4,519,186
106		E TERRY ST	3,996	MORTON AVE	BONITA GRANDE DR	BONITA SPRINGS	SHARED-USE PATH	8	0	3	3	2	0	\$60	2	\$479,533	\$479,533	\$0
107		DANIELS PKWY	29,075	SR 82	TREELINE AVE	COUNTY	SHARED-USE PATH	7	0	2	3	2	0	\$60	2	\$3,489,047	\$3,489,047	\$0
108		SENTINELA BLVD	13,485	BELL BLVD S	NAPLES AVE S	COUNTY	SIDEWALK	7	0	2	3	2	0	\$40	2	\$1,078,808	\$1,078,808	\$0
109		BUCKINGHAM RD	12,565	PEACE RD	GUNNERY RD	COUNTY	SIDEWALK	7	0	2	3	2	0	\$40	2	\$1,005,225	\$1,005,225	\$0
110		N TAMIAMI TRL	647	N TAMIAMI TRL	DEL PRADO BLVD	STATE	BIKE LANE	7	0	2	3	2	0	\$27	2	\$34,939	\$34,939	\$0
111		SENTINELA BLVD	13,485	BELL BLVD S	NAPLES AVE S	COUNTY	BIKE LANE	7	0	2	3	2	0	\$27	2	\$728,196	\$728,196	\$0

TOTAL COST OF PROJECTS IDENTIFIED

\$115,881,104

TOTAL COST - UNFUNDED NEEDS

\$84,821,207

TOTAL COST - FUNDED FROM COST FEASIBLE HIGHWAY PLAN

\$31,059,897

POTENTIAL FUNDING SOURCES KEY

- | | |
|---|---|
| 1. NHS - National Highway System | 9. BRI - Bridge |
| 2. STP - Surface Transportation Program | 10. 402 - State and Community Traffic Safety Program |
| 3. HSIP - Surface Transportation Program | 11. PLA - State/Metropolitan Planning Funds |
| 4. SRTS - Safe Routes to School Program | 12. TCSP - Transportation and Community and System Preservation Pilot Program |
| 5. TEA - Transportation Enhancement Activities | 13. JOBS - Access to Jobs/Reverse Commute Program |
| 6. CMAQ - Congestion Mitigation/Air Quality Program | 14. RTP - Recreational Trails Program |
| 7. FLH - Federal Lands Highway Program | 15. FTA - Federal Transit Capital, Urban & Rural Funds |
| 8. BYW - Scenic Byways | 16. TE - Transit Enhancements |

Proposed Bicycle & Pedestrian Network and Needs Plan

Cost Methodology

Project costs were developed for each segment based upon the type of improvement recommended. For the purpose of this master plan, there are three (3) types of projects identified for improvement. They are:

1. **Sidewalks:** Sidewalk is assumed to be 5' wide cement concrete. Curb and gutter is included in the cost. The cost does not include right-of-way acquisition if required.
2. **Bike Lanes:** Bike lane include widening existing pavement structure to accommodate a 4' wide paved area to be marked exclusively as a bike lane.
3. **Shared-use Paths:** Shared-use path is assumed to be a 14' wide asphalt paved path. The cost estimate was based on new construction along a new alignment. Right-of-way, if required, is not included. While the recommended width for shared-use paths is 10-12 feet, 14' width were used in the cost estimates to allow for enhance shared-use paths (bi-directional separation) and to build in a buffer for contingencies.

These project costs were developed using planning and historic data provided by the Florida Department of Transportation as follows:

Planning Data – The Florida Department of Transportation develops “cost per mile models” used to project future construction costs. The types of models vary and are generic. They identify work items used to build a “typical” facility. The unit costs used are based on the statewide average of historic cost data.

Historic Data – The Florida Department of Transportation tracks and publishes cost data based on actual construction contracts. The costs are averaged and categorized statewide and by area. The state is divided into 14 areas, and each area includes specific counties. This allows the costs to reflect the trends locally rather than statewide. Project costs were developed based on identifying work items used to build a “typical” facility. Area 10 costs were used, which is the area Lee County is in.

Click here to view the FDOT site where the cost data was taken from: <http://www.dot.state.fl.us/specificationoffice/Estimates/LRE/Default.shtm>

Based on the above, the following unit costs were developed for **Exhibit CCC: Facility Unit Costs Estimate** the various typed of improvements identified:

Project Type	Unit Cost/ LF
Sidewalks	\$40
Bike Lane	\$27
Shared-use Path	\$60

Funding

A detailed treatment of funding opportunities for the Lee County Bicycle Pedestrian Master Plan is discussed in Part 6 of this plan.

Cost Feasible Plan

The Master Plan Needs Assessment identified 111 projects, 53 bicycle projects and 58 pedestrian projects. The goal of the plan is to provide a network of bicycle and pedestrian facilities that provides recreational and transportation choices and to encourage Complete Streets.

State and Local Funding Opportunities

Currently, the Lee County MPO has approximately \$3M (\$300,000 TE funds, \$2.5 Million in Box Funds) per year to allocate to projects. These funds are allocated through the MPO's normal prioritization process. The prioritization provided in this plan will be used in future years to develop the projects to be funded through these sources.

Proposed Bicycle & Pedestrian Network and Needs Plan

It should be noted that the MPO is currently working on an integrated prioritization list for all transportation modes which will be provided to FDOT for their annual work plan. The use of an integrated list is an opportunity to unify all transportation needs and make funding decisions that will result in the highest mobility yield for the County. The bicycle and pedestrian projects identified in the Needs Assessment will be further analyzed to follow the project screening process to determine the project details necessary to have them incorporated in this overall list rather than being relegated to very limited bicycle/pedestrian-only funds priority list.

Total Cost of Prioritized Needs

The final prioritization and cost estimates for the primary bicycle and pedestrian networks are summarized below:

Total prioritized facility needs (bike lanes, sidewalks and shared-use paths) are as follows:

- Total cost of primary facility needs - \$115.88 million
- Total cost of needs identified in MPO Cost Feasible Highway Plan - \$31.06 million
- Total cost of unfunded needs - \$84.82 million

Facility Needs by Category

Sidewalk

- Total cost of sidewalk needs - \$12.42 million
- Total cost of needs identified in MPO Cost Feasible Highway Plan - \$0.74 million

Bike lanes

- Total cost of bike lane needs - \$22.89 million
- Total cost of needs identified in MPO Cost Feasible Highway Plan - \$5.5 million

Shared-use path

- Total cost shared-use path needs - \$80.57 million
- Total cost of needs identified in MPO Cost Feasible Highway Plan - \$24.87 million

The following recommendations are based upon the information presented in this document. They are consolidated in this section to provide quick reference for the user and to highlight that they are an integrated set of policies, plans, programs and processes that are closely interrelated.

GENERAL POLICIES

1. The MPO's adoption of the Lee County Bicycle Pedestrian Master Plan should serve as a demonstration of support for the plan by the member local jurisdictions.
2. Consistent with MPO Resolution 09-05, and recognizing that the most cost effective time to provide bicycle and pedestrian facilities is during initial construction, reconstruction, resurfacing and traffic operations/intersection improvements, the MPO and local units of government should establish mechanisms to ensure the review and consideration of bicycle and pedestrian accommodation prior to any of those activities, including and exception process, and a reporting mechanism for accountability to governing bodies.

PLANNING

3. The Lee County MPO, through the BPCCC should encourage Lee County and the various municipalities to establish mechanisms to coordinate bicycle and pedestrian planning endeavors that are consistent with this Master Plan and to incorporate facility priorities and policy recommendations into their comprehensive plans, transportation plans/capital improvement plans, bicycle and pedestrian programs, and land development regulations (LDRs).
4. Local units of government should consider reviewing and revising their Comprehensive Plans and LDRs to incorporate policies and regulations encouraging the development of Complete Streets.
5. Local jurisdictions should review and update their comprehensive plans to incorporate or enhance bicycle and pedestrian goals, objectives and policies. Policies should be context-sensitive and offer different treatments for urban, suburban and rural areas.
6. Local units of government should take advantage of the Evaluation and Appraisal Report process to review and revise their comprehensive plans and land development regulations (LDRs) to encourage the development of livable communities by allowing innovative planning and development practices, compact development, and mixed-use projects. At a minimum, impediments preventing these types of developments should be removed from their comprehensive plans and LDRs.
7. All units of local government should consider adopting comprehensive plan policies that would mandate that large planned developments provide public "through roads" to avoid mega block configurations.
8. All local jurisdictions should consider the adoption of comprehensive plan policies that encourage the provision of bicycle and pedestrian amenities (bike racks, rest areas, way finding and signage) when building new roadways.
9. Local jurisdictions should consider requiring all new development projects to provide bicycle and pedestrian facilities when adjacent to collector and arterial roads. Additionally, local jurisdictions should consider payment-in-lieu or build-in-lieu options when providing facilities along the adjoining right-of-way is not feasible.
10. Lee County jurisdictions, as legally practicable, should proactively identify right-of-way needs associated with planned bicycle and pedestrian facilities and consider establishing policies to preserve sufficient right-of-way as developments come in for approval. These policies could

Recommendations

include dedications, reservations, and targeted acquisitions. Additionally, local jurisdictions should monitor petitions to vacate rights-of-way to consider the appropriateness of maintaining the corridor for pathway purposes.

11. All local jurisdictions should consider policies that ensure that public projects such as libraries, baseball stadiums, parks, community and centers provide exemplary bicycle and pedestrian accommodations.
12. Local jurisdiction should consider developing incentives for private development to provide enhanced pedestrian and bicycle facilities, parking and amenities within their projects. Public-private partnerships should be allowed and encouraged.
13. Local units of government should consider requiring bicycle racks and/or parking for all commercial, multi-family and community facility projects.

COORDINATION

14. The Lee County MPO should encourage all local jurisdictions to establish mechanisms to coordinate bicycle and pedestrian efforts in a fashion consistent with the Lee County Bicycle Pedestrian Master Plan. Coordination efforts should be conducted through the MPO BPCC. This should include;
 - a. Establishing conventions and protocols for the collection and sharing of GIS information for bicycle and pedestrian facilities and improvements to ensure compatibility and uniformity of GIS information, and
 - b. Exploring ways to standardize definitions and minimum design standards for bicycle and pedestrian facilities.
15. The Lee County MPO should continue coordination with various agencies, stakeholder groups and departments in Lee County regarding bicycle and pedestrian facilities. Coordination should occur with the Lee County Sustainability Office, Lee Tran, various Planning, Parks and Recreation, Public Works, Transportation and Engineering Departments, Colleges and Universities, and advocacy groups such as BikeWalkLee.
16. The Lee County MPO should continue and enhance coordination efforts with Collier, Charlotte and Hendy counties to:
 - a. Interconnect bicycle facilities
 - b. Coordinate planning efforts
 - c. Investigate opportunities to pursue grants for regional bicycling projects.
17. The Lee County MPO should monitor activities related to the emerging U.S. Bicycle Route System, the Legacy Trail and Venice Loop in Charlotte and Sarasota counties, and the River of Grass Greenway (ROGG) and the Biscayne/Everglades Greenway Trail to look for opportunities to coordinate efforts, and connect to those facilities.

IMPLEMENTATION

Immediate Priorities

18. As an immediate implementation/public outreach step in launching the Master Plan, the MPO, through its BPCC, should consider partnering with community groups such as BikeWalkLee, Fit Friendly SW FL, and others, to host public events to inform the community about the Master Plan and to seek their involvement and support during the implementation of these bike/ped improvements.
19. The three demonstration projects identified in the Master Plan should be an immediate priority for the MPO. The BPCC should develop an action plan and strategy for funding and

Recommendations

implementation of each of these projects and should undertake a collaborative effort to develop consistent designs and common way finding signs, etc. for those projects that cross jurisdictional lines. In developing the University Loop, participation from FGCU should be ensured in order to interconnect and integrate campus facilities. The monthly BPCC reports to the MPO Board should report on the status of each of these projects, and seek board assistance if necessary to get MPO or local jurisdictions action to move forward.

Local Bicycle and Pedestrian Master Plans

20. Local jurisdictions with existing bicycle and pedestrian master plans should be encouraged to review and update their plans to ensure consistency with the Lee County Bicycle Pedestrian Master Plan. Local jurisdictions are encouraged to include provisions aimed at enhancing and supporting the countywide network and focus on locally maintained roads where facilities could provide significant connectivity and continuity benefits.
21. Local jurisdictions without a bicycle and pedestrian master plan are encouraged to develop plans that are consistent with the Lee County Bicycle Pedestrian Master Plan.
22. Through the BPCC, local jurisdictions should report annually to the MPO regarding the implementation status of their bicycle and pedestrian master plan. If the local jurisdiction does not have a plan, they should be encouraged to report bicycle and pedestrian facility construction, activities, or initiatives.

Programs

23. The MPO should work with private and quasi-public agencies, such as Lee Memorial Health System (Fit Friendly SWFL), Lee County Public Schools, Florida Bicycle Association, BikeWalkLee, and Caloosa Riders Bicycle Club to support and assist in programs that encourage healthy lifestyles and safe routes to schools.
24. The MPO should consider establishing a staff training program to educate transportation planners, engineers, transit and public works employees about bicycle and pedestrian issues including benefits, design best practices, and sustainability, livability and Complete Streets concepts. The MPO should consider collaboration with FDOT and bicycle and pedestrian advocacy groups that have well-established training programs.
25. The MPO in collaboration with local jurisdictions, public and quasi-public agencies, and non-profit organizations should establish a comprehensive bicycle and pedestrian safety program in an effort to improve safety on Lee County streets. This program should:
 - a. Review, evaluate and report on bicycle and pedestrian safety statistic, conditions and policies.
 - b. Provide recommendations to improve safety conditions, including education, signage, signalization, facility design, intersection design, maintenance, and innovative technologies such as “In Pavement Warning Lights” and “HAWK” signals.
 - c. Investigate the application of traffic calming measures, the reduction of speed limits, and “road diets” within the county.
 - d. Assist with Safe Routes to School programs.
 - e. Coordinate safety education and training activities and programs.
 - f. Investigate high crash areas and develop improvement projects aimed at improving safety conditions.
26. The MPO should consider establishing a county-wide mechanism (website, hotline, interactive GIS map) to allow the public to report bicycle and pedestrian issues related to facility design, maintenance, surface conditions, signalization, signage, access, and barriers. Comments could be tabulated in a centralized database, and the comments would be distributed to responsible parties within each jurisdiction. Many localized issues could be addressed through regular maintenance and operations or could be programmed into annual work plans.

Recommendations

27. The MPO, through its BPCC, should review and assess the Demonstration and Special Projects identified in the Proposed Bicycle & Pedestrian network and Needs Plan section of this Master Plan and develop strategies for addressing those needs.
28. The MPO, through its BPCC, should review and assess the use of bicycle and pedestrian signage throughout the county and consider consistency and uniformity in signage, and identify opportunities to use signage and wayfinding for safety, education and promotion purposes.
29. The MPO and local jurisdictions should assess current maintenance practices for bicycle and pedestrian facilities and establish effective programs for timely maintenance of these facilities. Costs associated with maintenance should be evaluated and dedicated funding should be identified in local operating budgets and capital improvement programs. Alternative funding sources for maintenance should be investigated and cost sharing opportunities should be explored. Additionally, developing programs or campaigns encouraging adjacent property owners, organizations, and the general public to maintain segments of the bicycle and pedestrian network should be considered.
30. The MPO, in collaboration with FDOT and local jurisdictions, should identify existing bridges, overpasses and underpasses throughout the county and assess their bicycle and pedestrian conditions. Efforts should be made to address accessibility, connectivity and safety issues caused by inadequate bicycle and pedestrian facilities on those structures.
31. The MPO, local jurisdictions and Lee Tran (as part of Lee County's Complete Streets Action Plan) should work together to ensure appropriate access to transit routes, transfer stations, and individual bus stops. Bus stops should be encouraged to provide a pleasant environment for users including shelters, landscaping and lighting. Facilities should meet ADA requirements and should be designed to minimize conflict with bicycle and pedestrian facilities. Bike racks and/or parking should be considered at bus stops and transfer stations.
32. The MPO, local jurisdictions, public and quasi-public agencies, and non-profit organizations should coordinate efforts to develop a variety of county-wide and local education and training campaigns and programs. The following programs and campaigns should be considered:
 - a. Existing FDOT programs such as the Florida Traffic & Bicycle Safety Education Program, School Crossing Guard Training Program and the Safe Routes to School Program
 - b. Lee Memorial Health and the Department of Health's Fit Friendly SWFL program
 - c. League of American Cyclist training program
 - d. Florida Bicycle Association's Cycling Savvy traffic skills program
 - e. Share the Road public education campaign
 - f. Walk and bike to School programs
 - g. School-based and community based programs to teach cycle and pedestrian safety to children
 - h. "Bike Friendly Community" designation from the League of American Bicyclists, such as was awarded to the City of Sanibel.
33. The MPO, local jurisdictions, public and quasi-public agencies, and nonprofit organizations should coordinate efforts to develop a variety of county-wide and local campaigns and programs to encourage and promote bicycle and pedestrian activity. The following programs and campaigns should be considered:
 - a. Special events such as "bike or walk or take transit to work days", educational kiosks at cultural events, National Trails Day, National Walk to School Day, or a "ciclovía" where a circuit of streets are opened up for citizens to interact through exercise, entertainment and fun.

Recommendations

- b. Public workshops
- c. Targeted presentations
- d. Media campaigns including websites, public service announcement, local access TV, print documents, and cell phone notification
- e. Maps of Bicycle Network, Greenways and Blueways, and park system
- f. Award programs
- g. Design competitions
- h. “Adopt a Street” or “Adopt a Path” programs
- i. Wayfinding and signage programs
- j. Development of bike routes
- k. Safety guides

MPO Staffing and Responsibilities

- 34. The Lee County MPO should consider hiring a dedicated staff person to coordinate all bicycle and pedestrian planning efforts. Dedicated staff can also be the liaison with the various jurisdictions in Lee County and adjacent communities on matters relating to bicycle and pedestrian facilities, data collection and maintenance, and implementation of this Master Plan.
- 35. The MPO, through its staff, should be the repository of all bicycle and pedestrian data and should assemble and categorize it in a unified database. Evaluation metrics and targets regarding bicycle and pedestrian safety as well as network development should be monitored and evaluated by the MPO and its staff and committees, and presented to the public on an annual basis.
- 36. It is recommended that the MPO enhance its website to include:
 - a. The Lee County Bicycle Pedestrian Master Plan, supporting documents and subsequent updates.
 - b. Information about Bicycle and Pedestrian policies, plans and programs.
 - c. Links to bicycle and pedestrian plans from local jurisdictions.
 - d. A new mapping section to allow users to identify and print bicycle and pedestrian routes. The mapping tool would allow them to see what facilities exist on a given route and what is planned for the future.
- 37. The MPO should consider partnering with private entities and non-profit organizations to publish and distribute bicycle and pedestrian maps for Lee County. This map should be updated regularly and should be used as a vehicle to educate, encourage residents and tourist to bike and walk, and develop support for bicycle and pedestrian programs. The MPO should consider the use of sponsorship and advertising to ensure funding on an ongoing basis. Ideally, a map should be completed and available for distribution by the Fall of 2011.

ADVISORY COMMITTEES

- 38. In order to emphasize the importance of non-motorized modes of transportation, it is recommended that the Lee County MPO expand both the membership and the mandate of the Bicycle Pedestrian Coordinating Committee. An expansion of the membership would to ensure balanced representation from a variety of stakeholders. In addition to the staff representatives from local departments and agencies, the MPO should consider including representation from the following:
 - a. Lee County Visitor and Convention Bureau
 - b. Lee County Sustainability Office

Recommendations

- c. Lee Memorial Health
 - d. Lee County Sheriff
 - e. 2 Bike/Ped advocacy group representatives
 - f. 2 citizens at large
39. In addition to existing responsibilities, this committee should be responsible for overseeing the implementation of the Lee County Bicycle Pedestrian Master Plan and should provide input and direction regarding periodic updates to the Master Plan.
40. The BPCCC will track the implementation of the recommendations contained in this plan and report to the MPO Board on their status, identify barriers to implementation and suggest actions to address those issues.
41. Further, the BPCCC should meet on a monthly basis and report directly to the MPO Board at their monthly meetings. These monthly reports should include updates on actions taken to implement the various recommendations in this plan.
42. Local units of governments should consider the establishment of Bicycle and Pedestrian Advisory Committees, either formal or informal, to provide review and advice regarding bicycle and pedestrian programs.
43. It is recommended that local jurisdictions provide information about their bicycle and pedestrian policies, plans and programs on their official websites.

PERFORMANCE MEASURES

44. As part of the implementation of this Master Plan, the MPO, through its BPCCC, should establish performance measures or metrics to periodically evaluate implementation progress. Based on baseline data provided in the Master Plan and the proposed Network Plan the following metrics should be considered for tracking on an annual basis:
- a. Paved shoulder miles
 - b. Bicycle lane miles
 - c. Shared use path miles
 - d. Sidewalk Miles
 - e. Collector and arterial road miles
 - f. Collector and arterial lane miles
 - g. Ratio of bicycle facilities to road miles
 - h. Ratio of bicycle facilities to road lane miles
 - i. Ratio of pedestrian facilities to road miles
 - j. Ratio of pedestrian facilities to road lane miles
 - k. Number and miles of bicycle facility gaps
 - l. Number and miles of pedestrian gaps
 - m. Reduction in number and miles of bicycle gaps
 - n. Reduction in number and miles of pedestrian gaps
 - o. Percentage of roadway coverage increase
 - p. Pedestrian and bicyclist crash and fatalities
 - q. Percentage increase or decrease in crashes and fatalities
 - r. Usage
 - s. Historical funding levels, sources and annual changes

Additionally, the following could also be tracked:

- i. Number of bridges and overpasses
- ii. Number of bridges with bicycle and pedestrian facilities

Recommendations

- iii. Schools with “Safe Route to School” improvements
- iv. Number of transit stops with bicycle and pedestrian access
- v. Number of Lee County jurisdictions with local Bicycle and Pedestrian Master Plans
- vi. Number of Lee County jurisdictions with bicycle/pedestrian advisory committees

It is also recommended that the MPO, as part of the LRTP, establish performance benchmarks or targets for the items presented above. Those numeral goals could be established for set time periods (2yrs, 5yrs, 10yrs,...) and should indicate a numerical or percentage improvement.

MASTER PLAN REVIEW & UPDATE

- 45. It is recommended that the MPO, in coordination with the Bicycle Pedestrian Coordinating Committee provide an annual report to the MPO Board regarding the implementation progress of the Lee County Bicycle Pedestrian Master Plan
- 46. It is recommended that the MPO review and update the Lee County Bicycle Pedestrian Master Plan on a regular basis. A four (4) year interval is preferred.

FUNDING

- 47. The Lee County MPO should explore how funding of all modes of transportation could be maximized by developing an integrated facility development approach. Projects that accommodate all modes of transportation should be given a higher priority when allocating limited funds.
- 48. Annually, the Lee County MPO should review the progress made in funding the bicycle/pedestrian Needs Plan contained in this Master Plan and recommend strategies to further enhance funding of the plan.
- 49. The Lee County MPO should assist local jurisdictions in obtaining LAP Certification if they do not already have it.
- 50. The Lee County MPO should work with Collier & Charlotte counties to explore and pursue funding for regional projects.

LEE COUNTY SCHOOL DISTRICT

- 51. The Lee County MPO should encourage the Lee County School District to participate in planning bodies or advisory committees that deal with bicycle and pedestrian issues.
- 52. The Lee County MPO should coordinate with the Lee County School District to develop an inventory of schools with bicycle and pedestrian access.
- 53. The Lee County MPO should coordinate with the Lee County School District regarding Safe Route to School initiatives in order to report and promote successes, and highlight the need for continued safety improvements.
- 54. The Lee County MPO should work with the Lee County School District to establish guidelines or best practices regarding the location of new schools and campus design that is bicycle and pedestrian friendly.
- 55. The Lee County MPO should encourage the Lee County School District to promote walking & biking as a safe & convenient transportation to and from school.
- 56. The Lee County MPO should encourage the Lee County School District to partner with “Fit Friendly Southwest Florida” coalition to promote biking and walking and other healthy lifestyles to fight obesity.

Recommendations

LEE COUNTY VISITOR & CONVENTION BUREAU

57. The Lee County MPO should coordinate with the Lee County Visitor & Convention Bureau to promote bicycle tourism in Lee County, similar to their “Blueways” branding campaign, and explore opportunities to disseminate information about Lee County facilities and programs through their website and other marketing venues.
58. The Lee County MPO should work with the Lee County Visitor & Convention Bureau to see about incorporating bicycle and pedestrian user experience questions within their visitor surveys.
59. The Lee MPO should explore with the Lee VCB the possible use of Tourist Development Council (TDC) funds for visitor kiosks/way-finding on path systems targeted to visitors, and other tourist-related activities.

LEE COUNTY DEPARTMENT OF PARKS & RECREATION

60. The Lee County MPO should work closely with the Lee County Department of Parks and Recreation to coordinate efforts to interconnect the on-road bicycle and pedestrian network with their system of greenways and trails.
61. The Lee County MPO should coordinate with the Lee County Department of Parks and Recreation to ensure collaboration and consistency with mapping and wayfinding initiatives.
62. The Lee County MPO should work closely with the Lee County Department of Parks and Recreation and the “Fit Friendly Southwest Florida” coalition to promote active lifestyles and exercise.
63. The Lee County MPO in collaboration with the Lee County Department of Parks and Recreation should explore the opportunity to develop a “Rails with Trails” project within the Seminole Rail Line right-of-way.

LAW ENFORCEMENT (Florida Highway Patrol, Lee County Sheriff and Local Police Departments)

64. The MPO, local jurisdictions and law enforcement entities should collaborate in developing bicycle and pedestrian enforcement and education programs. These programs should focus primarily on education and training but enforcement of traffic laws might be needed to curtail unsafe behavior. The following should be considered:
 - a. Law enforcement training regarding bicycle and pedestrian issues as well as bicycle rules and regulations.
 - b. Law enforcement should be encouraged to use non-motorized modes such as walking and biking to patrol public areas and special events. This can provide numerous benefits including safety education and training, improved community relations, as well as providing community ambassadors for visitors and tourists.
 - c. Law enforcement being involved in school-based safety education & training programs.
65. The MPO will work with the Florida Highway Patrol (FHP) on identifying high crash fatality and injury locations to assist in coordinating proposed solutions to lower these incidents. In addition, the MPO will work with the FHP to identify targeted enforcement locations that are prone to a high amount of pedestrian/bicycle crashes, with the intent of reducing these types of crashes. These enforcement activities will be implemented and reviewed on a quarterly basis. Finally, the MPO will work with its regional partners to assist the FHP in expanding these coordination efforts in neighboring Counties and Communities.

This section outlines the “next steps” to be undertaken in a timely manner in order to implement this Master Plan.

STEP 1: GET THE PLAN ADOPTED

- Review and adoption recommendations from BPCC, CAC and TAC
- Review and adoption by MPO
- Distribute the approved Master Plan to the local jurisdictions

STEP 2: IMPLEMENT THE PLAN

- Hire or designate a full time staff person dedicated to the implementation of this Master Plan
- Revise bylaws & membership of BPCC and reconstitute expanded committee to assume responsibility with MPO staff for the implementation of Master Plan
- Identify projects such as those included in the Prioritized Spot Improvements list, that can be done quickly and in a cost-effective manner. This can foster additional support of the Master Plan - Early success provides momentum
- Implement Demonstration Projects as soon as possible to provide immediate and highly visible improvements. These projects can help garner support for bicycle and pedestrian investment, brand the community, educate the citizenry, and promote bicycle and pedestrian activity

STEP 3: DEVELOP AN ANNUAL WORK PLAN

- Develop an annual work plan of priority projects and action items, including funding possibilities for the upcoming year
- Incorporate projects planned by local jurisdictions
- Incorporate an assessment on progress in meeting the master plan goals; Re-evaluate priorities and make adjustments as needed
- Identify goals in measurable tasks, such as number of bike lane miles to be developed, number of bike racks, number of schools to focus education programs

STEP 4: PUBLIC OUTREACH AND PARTNERSHIPS

- Partner with community groups, such as BikeWalkLee and Fit Friendly SWFL, to host public events (similar to BWL Lakes Parks events in 2009 & 2010) to inform the community about the Master Plan and to seek their involvement and support during the implementation of bike/ped improvements.
- Conduct training and workshops for local jurisdictions and committee members about issues such as complete streets, integrating multi-modal goals into the overall transportation planning process
- Coordinate with and seek out opportunities to market the Master Plan and successes to various agencies, community groups and residents, such as schools, colleges and universities, hospitals and health organizations, businesses, chambers of commerce, tourism organizations, bike groups and clubs, parent organizations, and the media
- Publish and distribute bicycle and pedestrian map for Lee County—seek out sponsorship and advertising to offset production costs
- Document successes with before and after pictures and press releases

Attachment 1

MPO Resolution 09-05

RESOLUTION 09-05

A RESOLUTION OF THE LEE COUNTY METROPOLITAN PLANNING ORGANIZATION REQUESTING FDOT DISTRICT 1 AND THE LOCAL GOVERNMENTS IN LEE COUNTY TO ACCOMMODATE BICYCLE PEDESTRIAN AND TRANSIT FACILITIES IN ROADWAY DESIGN AND CONSTRUCTION PLANS

Whereas, Florida ranks high among all the states in both bicyclist and pedestrian fatality rates according to the National Highway Traffic Safety Administration, while Lee County fatality rates for both bicyclists and pedestrians in 2008 places it in the middle third among all counties in the United States. While pedestrian and bicycle crashes in Lee County have declined over the years as a result of efforts by local law enforcement agencies, the county, cities, and coalitions, further improvements are needed to make the streets safer for cyclists and pedestrians; and

Whereas, Section 335.065, Florida Statutes, calls for bicycle and pedestrian facilities to be included in new road construction, reconstruction or other change of a state transportation facility with special emphasis to be given to projects in or within 1 mile of an urban area while also recognizing that prohibitive costs, absence of needs due to other available means, and public safety may exempt the requirement of such facilities; and

Whereas, the *FDOT Plans Preparation Manual* provides enhanced design standards and criteria for bicycle, pedestrian and transit facilities on state highways and consistent with Section 336.045, Florida Statutes, the local jurisdictions use the *Florida Green Book* to provide the minimum design and construction standards for the development of bicycle, pedestrian and transit facilities for all public streets, roadways and highways. Those two documents are not currently fully consistent in their treatment of bicycle, pedestrian and transit facilities, and

Whereas, the State also follows the MPO's adopted Bicycle/Pedestrian Plan to help determine what Bicycle and Pedestrian facilities should be included on State roadways and the local jurisdictions use their local Bicycle/Pedestrian plans to determine what facilities should be included on their arterial and collector facilities. Therefore, the MPO and the local jurisdictions will work to update and improve the bicycle/pedestrian and transit plans so that they can be relied on to provide this direction to ensure that the bicycle/pedestrian and transit facilities are planned and coordinated throughout the phases of a project so that we can avoid costly retrofits later on; and

Whereas, the Land Development Codes of the various local governments within Lee County call for new development to provide for bicycle, pedestrian and transit facilities on public streets, roadways and highways adjacent or in the proximity of new developments, although the requirements are not uniform among all jurisdictions; and

Whereas, *FDOT Districts One and Seven Transit Facility Handbook* provides comprehensive guidance of transit facilities and activities within this area; and

Whereas, adapting these guidelines to site specific conditions will improve roadway/transit design interaction, enhance transit safety, support the integration of transit facilities with land uses and accommodate the neighborhood needs in the design of transit stops; and

Whereas, the American Disability Act (ADA) provides equal access to transportation which is addressed under Title II - Public Entities and applies to state, county and municipal programs and facilities and public transportation programs; and

Whereas, the Lee County MPO will be soon developing a Countywide Bicycle Pedestrian Master Plan that will recommend policies in conjunction with local jurisdictions in Lee County; and

Whereas, the Lee County MPO Citizens Advisory Committee passed a motion at its April 2, 2009 meeting, recommending that the MPO Board adopt a resolution asking FDOT and the local governments to coordinate with LeeTran on roadway projects where LeeTran currently provides bus service or plans on providing transit service in the future; and

Whereas, the Lee County MPO Citizens Advisory Committee also recommended that the resolution include language asking FDOT and the local governments to accommodate bicycle, pedestrian and transit facilities on roadway projects.

NOW THEREFORE, BE IT RESOLVED that the Lee County Metropolitan Planning Organization requests FDOT District 1 and the local governments in Lee County to continue to coordinate with all multi-modal agencies to ensure that accommodations for bicycle, pedestrian and transit facilities are included in the planning and design of all roadway projects during new road construction, reconstruction, resurfacing and traffic operations/intersection improvements. In developing these accommodations the latest applicable standards and what is included in local approved plans should be used to determine the bicycle/pedestrian and transit facilities that will be included in the project, while recognizing the need for flexibility in balancing user needs in accordance with Chapters 335 and 336 of the Florida Statutes. Further, in developing these accommodations the policies of the Lee County MPO's Countywide Bicycle Pedestrian Master Plan, Local Government Bicycle/Pedestrian Plans, Land Development Codes and transit policies of local jurisdictions are to be respected. Also, FDOT District 1 and local governments are urged to comply with all applicable federal and state laws such as ADA policy while accommodating these facilities.

BE IT FURTHER RESOLVED to urge FDOT District 1 and the local governments in Lee County to refer to FDOT Districts One and Seven Transit Facility Handbook for guidance while designing transit facilities in roadway projects.

BE IT FURTHER RESOLVED to request that when FDOT District 1 reviews plans submitted by developers for permitting construction on state rights-of-ways they do so by ensuring that the plans adjacent to development accommodate bicycle, pedestrian and transit facilities consistent with the MPO's Long Range Transportation Plan and the Lee County Transit Development Plan. And FINALLY

BE IT RESOLVED by the Lee County Metropolitan Planning Organization to have staff report to the MPO Board on the exceptions to these policy statements granted by FDOT District 1 and any local government in Lee County.

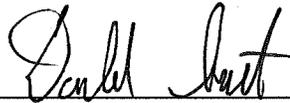
This resolution by the Lee County Metropolitan Planning Organization is intended to support a comprehensive, integrated and connected network for all modes of transportation taking into account the needs and safety of all users.

PASSED AND DULY ADOPTED this 21st day of August 2009.

LEE COUNTY METROPOLITAN PLANNING ORGANIZATION



Councilman Mike Flanders, MPO Chairman



Donald Scott, Lee County MPO Director

RESOLUTION 09-05

A RESOLUTION OF THE LEE COUNTY METROPOLITAN PLANNING ORGANIZATION REQUESTING FDOT DISTRICT 1 AND THE LOCAL GOVERNMENTS IN LEE COUNTY TO ACCOMMODATE BICYCLE PEDESTRIAN AND TRANSIT FACILITIES IN ROADWAY DESIGN AND CONSTRUCTION PLANS

Whereas, Florida ranks high among all the states in both bicyclist and pedestrian fatality rates according to the National Highway Traffic Safety Administration, while Lee County fatality rates for both bicyclists and pedestrians in 2008 places it in the middle third among all counties in the United States. While pedestrian and bicycle crashes in Lee County have declined over the years as a result of efforts by local law enforcement agencies, the county, cities, and coalitions, further improvements are needed to make the streets safer for cyclists and pedestrians; and

Whereas, Section 335.065, Florida Statutes, calls for bicycle and pedestrian facilities to be included in new road construction, reconstruction or other change of a state transportation facility with special emphasis to be given to projects in or within 1 mile of an urban area while also recognizing that prohibitive costs, absence of needs due to other available means, and public safety may exempt the requirement of such facilities; and

Whereas, the *FDOT Plans Preparation Manual* provides enhanced design standards and criteria for bicycle, pedestrian and transit facilities on state highways and consistent with Section 336.045, Florida Statutes, the local jurisdictions use the *Florida Green Book* to provide the minimum design and construction standards for the development of bicycle, pedestrian and transit facilities for all public streets, roadways and highways. Those two documents are not currently fully consistent in their treatment of bicycle, pedestrian and transit facilities, and

Whereas, the State also follows the MPO's adopted Bicycle/Pedestrian Plan to help determine what Bicycle and Pedestrian facilities should be included on State roadways and the local jurisdictions use their local Bicycle/Pedestrian plans to determine what facilities should be included on their arterial and collector facilities. Therefore, the MPO and the local jurisdictions will work to update and improve the bicycle/pedestrian and transit plans so that they can be relied on to provide this direction to ensure that the bicycle/pedestrian and transit facilities are planned and coordinated throughout the phases of a project so that we can avoid costly retrofits later on; and

Whereas, the Land Development Codes of the various local governments within Lee County call for new development to provide for bicycle, pedestrian and transit facilities on public streets, roadways and highways adjacent or in the proximity of new developments, although the requirements are not uniform among all jurisdictions; and

Whereas, *FDOT Districts One and Seven Transit Facility Handbook* provides comprehensive guidance of transit facilities and activities within this area; and

Whereas, adapting these guidelines to site specific conditions will improve roadway/transit design interaction, enhance transit safety, support the integration of transit facilities with land uses and accommodate the neighborhood needs in the design of transit stops; and

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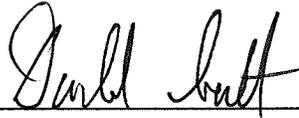
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PASSED AND DULY ADOPTED this 21st day of August 2009.

LEE COUNTY METROPOLITAN PLANNING ORGANIZATION



Councilman Mike Flanders, MPO Chairman



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PASSED AND DULY ADOPTED this 21st day of August 2009.

LEE COUNTY METROPOLITAN PLANNING ORGANIZATION



Councilman Mike Flanders, MPO Chairman



Donald Scott, Lee County MPO Director

Attachment 2

USDOT Policy Statement on Bicycle & Pedestrian Accommodations & Recommendations



United States Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations

Signed on March 11, 2010 and announced March 15, 2010

Note: Also available on the [United States Department of Transportation Website](#)

Purpose

The United States Department of Transportation (DOT) is providing this Policy Statement to reflect the Department's support for the development of fully integrated active transportation networks. The establishment of well-connected walking and bicycling networks is an important component for livable communities, and their design should be a part of Federal-aid project developments. Walking and bicycling foster safer, more livable, family-friendly communities; promote physical activity and health; and reduce vehicle emissions and fuel use. Legislation and regulations exist that require inclusion of bicycle and pedestrian policies and projects into transportation plans and project development. Accordingly, transportation agencies should plan, fund, and implement improvements to their walking and bicycling networks, including linkages to transit. In addition, DOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Transportation programs and facilities should accommodate people of all ages and abilities, including people too young to drive, people who cannot drive, and people who choose not to drive.

Policy Statement

The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.

Authority

This policy is based on various sections in the United States Code (U.S.C.) and the Code of Federal Regulations (CFR) in Title 23—Highways, Title 49—Transportation, and Title 42—The Public Health and Welfare. These sections, provided in the Appendix, describe how bicyclists and pedestrians of all abilities should be involved throughout the planning process, should not be adversely affected by other transportation projects, and should be able to track annual obligations and expenditures on nonmotorized transportation facilities.

Recommended Actions

The DOT encourages States, local governments, professional associations, community organizations, public transportation agencies, and other government agencies, to adopt similar policy statements on bicycle and pedestrian accommodation as an indication of their commitment to accommodating bicyclists and pedestrians as an integral element of the transportation system. In support of this commitment, transportation agencies and local

communities should go beyond minimum design standards and requirements to create safe, attractive, sustainable, accessible, and convenient bicycling and walking networks. Such actions should include:

- Considering walking and bicycling as equals with other transportation modes: The primary goal of a transportation system is to safely and efficiently move people and goods. Walking and bicycling are efficient transportation modes for most short trips and, where convenient intermodal systems exist, these nonmotorized trips can easily be linked with transit to significantly increase trip distance. Because of the benefits they provide, transportation agencies should give the same priority to walking and bicycling as is given to other transportation modes. Walking and bicycling should not be an afterthought in roadway design.
- Ensuring that there are transportation choices for people of all ages and abilities, especially children: Pedestrian and bicycle facilities should meet accessibility requirements and provide safe, convenient, and interconnected transportation networks. For example, children should have safe and convenient options for walking or bicycling to school and parks. People who cannot or prefer not to drive should have safe and efficient transportation choices.
- Going beyond minimum design standards: Transportation agencies are encouraged, when possible, to avoid designing walking and bicycling facilities to the minimum standards. For example, shared-use paths that have been designed to minimum width requirements will need retrofits as more people use them. It is more effective to plan for increased usage than to retrofit an older facility. Planning projects for the long-term should anticipate likely future demand for bicycling and walking facilities and not preclude the provision of future improvements.
- Integrating bicycle and pedestrian accommodation on new, rehabilitated, and limited-access bridges: DOT encourages bicycle and pedestrian accommodation on bridge projects including facilities on limited-access bridges with connections to streets or paths.
- Collecting data on walking and biking trips: The best way to improve transportation networks for any mode is to collect and analyze trip data to optimize investments. Walking and bicycling trip data for many communities are lacking. This data gap can be overcome by establishing routine collection of nonmotorized trip information. Communities that routinely collect walking and bicycling data are able to track trends and prioritize investments to ensure the success of new facilities. These data are also valuable in linking walking and bicycling with transit.
- Setting mode share targets for walking and bicycling and tracking them over time: A byproduct of improved data collection is that communities can establish targets for increasing the percentage of trips made by walking and bicycling.
- Removing snow from sidewalks and shared-use paths: Current maintenance provisions require pedestrian facilities built with Federal funds to be maintained in the same manner as other roadway assets. State Agencies have generally established levels of service on various routes especially as related to snow and ice events.
- Improving nonmotorized facilities during maintenance projects: Many transportation agencies spend most of their transportation funding on maintenance rather than on constructing new facilities. Transportation agencies should find ways to make facility improvements for pedestrians and bicyclists during resurfacing and other maintenance projects.

Conclusion

Increased commitment to and investment in bicycle facilities and walking networks can help meet goals for cleaner, healthier air; less congested roadways; and more livable, safe, cost-efficient communities. Walking and bicycling provide low-cost mobility options that place fewer demands on local roads and highways. DOT recognizes that safe and convenient walking and bicycling facilities may look different depending on the context — appropriate facilities in a rural community may be different from a dense, urban area. However, regardless of regional, climate, and population density differences, it is important that pedestrian and bicycle facilities be integrated into transportation systems. While DOT leads the effort to provide safe and convenient accommodations for pedestrians and bicyclists, success will ultimately depend on transportation agencies across the country embracing and implementing this policy.

Ray LaHood, United States Secretary of Transportation

APPENDIX

Key Statutes and Regulations Regarding Walking and Bicycling

Planning Requirements

The State and Metropolitan Planning Organization (MPO) planning regulations describe how walking and bicycling are to be accommodated throughout the planning process (e.g., see 23 CFR 450.200, 23 CFR 450.300, 23 U.S.C. 134(h), and 135(d)). Nonmotorists must be allowed to participate in the planning process and transportation agencies are required to integrate walking and bicycling facilities and programs in their transportation plans to ensure the operability of an intermodal transportation system. Key sections from the U.S.C. and CFR include, with italics added for emphasis:

- The scope of the metropolitan planning process "will address the following factors...(2) Increase the safety for motorized and *non-motorized users*; (3) Increase the security of the transportation system for motorized and *non-motorized users*; (4) Protect and enhance the environment, promote energy conservation, improve the quality of life..." 23 CFR 450.306(a). See 23 CFR 450.206 for similar State requirements.
- Metropolitan transportation plans "...shall, at a minimum, include...existing and proposed transportation facilities (including major roadways, transit, multimodal and intermodal facilities, *pedestrian walkways and bicycle facilities*, and intermodal connectors that should function as an integrated metropolitan transportation system..." 23 CFR 450.322(f). See 23 CFR 450.216(g) for similar State requirements.
- The plans and transportation improvement programs (TIPs) of all metropolitan areas "shall provide for the development and integrated management and operation of transportation systems and facilities (including *accessible pedestrian walkways and bicycle transportation facilities*)." 23 U.S.C. 134(c)(2) and 49 U.S.C. 5303(c)(2). 23 CFR 450.324(c) states that the TIP "shall include ...trails projects, pedestrian walkways; and bicycle facilities..."
- 23 CFR 450.316(a) states that "The MPOs shall develop and use a documented participation plan that defines a process for providing...representatives of users of *pedestrian walkways and bicycle transportation facilities, and representatives of the disabled*, and other interested parties with reasonable opportunities to be involved in the metropolitan planning process." 23 CFR 450.210(a) contains similar language for States. See also 23 U.S.C. 134(i)(5), 135(f)(3), 49 U.S.C. 5303(i)(5), and 5304(f)(3) for additional information about participation by interested parties.

Prohibition of Route Severance

The Secretary has the authority to withhold approval for projects that would negatively impact pedestrians and bicyclists under certain circumstances. Key references in the CFR and U.S.C. include:

- "The Secretary shall not approve any project or take any regulatory action under this title that will result in the severance of an existing major route or have significant adverse impact on the safety for nonmotorized transportation traffic and light motorcycles, unless such project or regulatory action provides for a reasonable alternate route or such a route exists." 23 U.S.C. 109(m).
- "In any case where a highway bridge deck being replaced or rehabilitated with Federal financial participation is located on a highway on which bicycles are permitted to operate at each end of such bridge, and the Secretary determines that the safe accommodation of bicycles can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations." 23 U.S.C. 217(e). Although this statutory requirement only mentions bicycles, DOT encourages States and local governments to apply this same policy to pedestrian facilities as well.
- 23 CFR 652 provides "procedures relating to the provision of pedestrian and bicycle accommodations on Federal-aid projects, and Federal participation in the cost of these accommodations and projects."

Project Documentation

- "In metropolitan planning areas, on an annual basis, no later than 90 calendar days following the end of the program year, the State, public transportation operator(s), and the MPO shall cooperatively develop a listing of projects (including investments in *pedestrian walkways and bicycle transportation facilities*) for which funds under 23 U.S.C. or 49 U.S.C. Chapter 53 were obligated in the preceding program year." 23 CFR 332 (a).

Accessibility for All Pedestrians

- Public rights-of-way and facilities are required to be accessible to persons with disabilities through the following statutes: Section 504 of the Rehabilitation Act of 1973 (Section 504) (29 U.S.C. §794) and Title II of the Americans with Disabilities Act of 1990 (ADA) (42 U.S.C. §§ 12131-12164).
- The DOT Section 504 regulation requires the Federal Highway Administration (FHWA) to monitor the compliance of the self-evaluation and transition plans of Federal-aid recipients (49 CFR §27.11). The FHWA Division offices review pedestrian access compliance with the ADA and Section 504 as part of their routine oversight activities as defined in their stewardship plans.
- FHWA posted its [Clarification of FHWA's Oversight Role in Accessibility](#) to explain how to accommodate accessibility in policy, planning, and projects.

Additional Resources

For more information about:

FHWA Bicycle and Pedestrian Program Resources

- [FHWA's Bicycle and Pedestrian Program](#)
- [FHWA guidance documents on walking and bicycling](#)
- [Publications related to walking and bicycling](#)
- [Information about State and local resources](#)
- [Equestrian and Other Nonmotorized Use on Bicycle and Pedestrian Facilities](#)
- [Framework for Considering Motorized Use on Nonmotorized Trails and Pedestrian Walkways](#)
- [Manuals and Guides for Trail Design, Construction, Maintenance, and Operation](#)
- [Recreational Trails](#)
- [Shared-Use Paths Along or Near Freeways and Bicycles on Freeways](#)
- [Snow Removal on Sidewalks Constructed with Federal Funding](#)
- [Federal Aid funding resources for walking and bicycling facilities](#)
- [Federal funding spent on walking and bicycling facilities](#)

Accessibility

- [FHWA American with Disabilities Act \(ADA\) resources](#)
- [U.S. Access Board information about ADA for public rights of way](#)
- [Accessibility Guidance for Bicycle and Pedestrian Facilities, Recreational Trails, and Transportation Enhancement Activities](#)

Pedestrian and Bicycle Safety

- [FHWA Pedestrian and Bicycle Safety Program](#)
- [FHWA Pedestrian and Bicycle Safety Research](#)
- The National Highway Traffic Safety Administration's [Pedestrian](#) and [Bicycle](#) Safety Programs

Context Sensitive Solutions

- [FHWA and Context Sensitive Solutions](#)

State Bicycle and Pedestrian Contacts

- [State Bicycle and Pedestrian Coordinators](#)

To provide Feedback, Suggestions, or Comments for this page contact Gabe Rousseau at gabe.rousseau@dot.gov.

This page last modified on March 15, 2011

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United States Department of Transportation - **Federal Highway Administration**

Attachment 3

Lee County Resolution 9-11-13: Complete Streets

Resolution No. 09-11-13

**COMPLETE STREETS RESOLUTION
Lee County, Florida Board of County Commissioners**

A RESOLUTION OF THE LEE COUNTY BOARD OF COMMISSIONERS DIRECTING THE COUNTY MANAGER TO ESTABLISH A "COMPLETE STREETS PROGRAM," TO INTEGRATE BICYCLING, WALKING, AND PUBLIC TRANSIT WITH THE COUNTY'S TRANSPORTATION, CLIMATE, ENERGY, SMART GROWTH PROGRAMS, POLICY INITIATIVES, AND GOALS AND OBJECTIVES; FURTHER DIRECTING THE COUNTY MANAGER TO PRESENT GUIDELINES FOR INCORPORATING COMPLETE STREETS INTO COUNTY PROGRAMS, INITIATIVES, AND PRACTICES TO COUNTY COMMISSIONERS, AND TO REPORT ANNUALLY ON COMPLETE STREETS PROGRAM IMPLEMENTATION.

WHEREAS, the mobility afforded the individual is basic to the success of the County's land use and transportation system, where complete streets are designed and operated to assure safety and accessibility for all users of our roads, trails, and transit systems, including pedestrians, bicyclists, transit riders, motorists, commercial and emergency vehicles, and for people of all ages and abilities; and

WHEREAS, the early settlement patterns for Lee County demonstrated an innate understanding of the relationship between walking and land use, integrating slower moving vehicles with walking, and with walking and an easily accessible mixture of land uses, but a century of changing development types and standards has moved the scale of County's land use and transportation system from the convenience of a walk to the convenience of a drive, resulting in widespread dependence on the motor vehicle for basic travel; and

WHEREAS, without proper design and understanding of bicycle and pedestrian needs, road construction and traffic operations may increase hazardous conditions for the vulnerable modes of walking and cycling, as has been reported in various studies, and

WHEREAS, increasing the opportunity for cycling and pedestrian travel through better integration of land use and transportation does reduce reliance on fossil fuels, and places Lee County in a position to more effectively reduce greenhouse emissions; and

WHEREAS, recent data on obesity and public health identifies a relationship between land use, automobile dependency, and poor health, which can and has been improved for communities exercising the principles of complete streets; and

WHEREAS, various national movements have been promoting a return to a more balanced urban environment and streetscape, using terms such as "livable communities", "new urbanism," "smart growth," "complete streets," and "healthy communities," strategies, which reduce congestion, increase the overall capacity of the transportation network, decrease consumer transportation costs, improve air quality, support economic growth, increase community stability by providing accessible and efficient connections between home, school, work, recreation, and retail destinations by improving the land use and transportation connections; and

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WHEREAS, a 1999 study by the Urban Land Institute determined that homebuyers in four new pedestrian-friendly communities were willing to pay \$20,000 more than similar homes in surrounding areas; and the Victoria Transport Policy Institute cites studies showing that reductions in traffic speeds increased adjacent residential property values by approximately 20% and that a several-hundred-per-day car volume reduction on residential streets increased home values by 18% on average; and

WHEREAS, the USDOT/Federal Highway Administration (FHWA) Design Guidance for Accommodating Bicycle and Pedestrian Travel issued in 2000, stated that bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas excluding projects where one or more of three narrow conditions are met; and

WHEREAS, the U.S. Congress is considering the Complete Streets Act of 2008 (S. 2686 and H.R. 1443), a landmark bill that would ensure that future transportation investments made by the State Departments of Transportation and Metropolitan Planning Organizations create appropriate and safe transportation facilities for all those using the road--motorists, transit vehicles and riders, bicyclists, and pedestrians of all ages and abilities; and

WHEREAS, Florida Statutes, Section 335.065, titled "Bicycle and pedestrian ways along state roads and transportation facilities" is part of the Florida Department of Transportation's (FDOT) Pedestrian and Bicycle Procedure and states that "Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities...and bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any state transportation facility..."; and

WHEREAS, in 2005, the Florida Legislature directed FDOT to determine ways to increase the use of bicycles in order to conserve energy, reduce pollution, and improve health, and established FDOT's Conserve by Bicycle Program Study, which recommended that "public agencies accommodate bicycling on all non-limited access roadways in Florida"; and, warns that "the way Florida plans its development and roadways must change"; and

WHEREAS, Lee County has invested heavily in transportation systems to improve the balance in the community's mobility, but continues to experience practical difficulty in integrating mobility systems with each other and within the urban landscape through the current land development code; and

WHEREAS, functional classification of roadways is currently fragmented between the County Department of Transportation (DOT) and the County Department of Development Services (DDS), with the County DOT determining the classification for County roads, and the DDS determining classification for non-county roads, pending any Board of County Commission contrary action; and

WHEREAS, roadway classification defines the function of the roadway, where access on abutting properties on arterial and collector roads are currently determined to be of secondary consideration, despite that a balanced urban community requires that transportation routes and abutting properties be functionally integrated, since the purpose of a trip is for the person to reach the destination, regardless of mode; and

WHEREAS, the current classification system does not recognize that some arterials and collectors are themselves functioning as local roads for very short trips due to an absence of safe other modes and where a review of the currently identified arterials and collectors would identify which of those routes are dominated by local trips, and would identify those roads where access to abutting properties are not a secondary consideration; and

WHEREAS, the Lee County Board of County Commissioners expressed its support for the philosophy of complete streets for the safety, health and environmental integrity of all residents, visitors, and the community as a whole, in its Resolution/Proclamation dated March 24, 2009; and

WHEREAS, the Lee County Board of County Commissioners expressed its support for the National Start! Walking campaign to get Americans to become more physically active by walking, in its Resolution/Proclamation dated April 7, 2009; and

WHEREAS, the Lee County Board of County Commissioners further expressed support for complete streets by its vote in support of MPO Resolution 09-05, as adopted on August 21, 2009.

NOW, THEREFORE, BE IT RESOLVED THAT THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA, intend for street connectivity to be encouraged, with the aim of creating a comprehensive, integrated, and connected network for all modes of transportation.

RESOLVED, that the BoCC affirms that all road projects should be designed to accommodate all users; that bicycling, walking, and public transit accommodations is a routine part of the county planning, design, construction, maintenance, and operating activities, and will be included in the everyday operations of the transportation system in Lee County; and that bicycle and pedestrian ways should be established in new construction and reconstruction of road and bridge projects. In developing these accommodations, the latest, best, and context-sensitive design standards will be used, while recognizing the need for flexibility in balancing user needs.

RESOLVED, that very limited exceptions to these required accommodations are allowed under Florida Statutes, Section 335.065 and that the county manager will review the formal approval process -related to granting these exceptions along county roadways

RESOLVED, that by April 2010 the County Manager is directed to work with appropriate County staff to develop guidelines for Lee County's implementation of the "Complete Streets Program". Upon review and approval by the BoCC, county departments will incorporate these guidelines and Complete Streets principles into their work plans.

RESOLVED, that the BoCC directs the following actions be part of the County Commission Goals and Objectives for 2009-2010:

1. The County Manager direct the appropriate subordinate departments to review the functional classification of arterials and collectors, to designate a newly named or redefined subset of those facilities to meet the urban purpose of integrated modes and destinations, to be completed and recommendations brought to the Board for action during operational year 09-10, including whatever reforms are necessary to AC 11-1 and elsewhere. This review will identify those roadway facilities that will still, through necessity, have access to abutting land uses as a secondary consideration. Those facilities shall be assessed to the adequacy of current regulations and plans that will provide within, adjacent, or functionally present alternative modes available and safely designated, built, or planned to be built, and the degree of maintenance and operational signage needed that is different from that for the county roadway operating at that location.

2. The County Manager direct the Department of Community Development, as well as other appropriate departments, to review the Community Planning Program in AC 13-3, as well as other authorized staff initiated community planning programs, to ensure that a required component of future plan updates include the integration of modes and destinations at the human scale. This review will be undertaken complementary to the review taken for AC 11-1.
3. The County Manager directs the Department of Transit, and appropriate departments, to review current transit stops for their ability to integrate with other modes and destinations, existing and proposed, and for the Department to suggest changes to modes, and receive recommendations for changes to transit stops, that would improve this integration.
4. The County Manager directs the Department of Parks and Recreation, and other appropriate departments, to review the County's greenways and trails plan to assess the provision of alternative modes of transportation wherein access is a secondary consideration.
5. The County Manager is directed to work with the Lee County Department of Health to identify, measure, and report on indicators of human health that would be affected by the Complete Streets Program.

RESOLVED, that the County Manager shall facilitate and present a report to the Board by October 1, 2010 on the implementation status of its Complete Streets Program, including all the exception decisions made under this policy. This report shall be delivered annually thereafter. The County Manager shall include reports from participating departments identifying disconnections in routes within the transportation network that serve as barriers for effectively functioning alternative modes. This report will identify barriers that are proposed to be remedied as well as those that are not included in plans for remedy. This report will contain recommendations for the changes needed for that remedy, including non structural recommendations. Indicators measuring the impact of the Complete Streets Program shall also be included in this annual report.

RESOLVED, that it is the BoCC's intent that all appropriate sources of funding be drawn upon to implement complete streets.

RESOLVED, that these actions will enable Lee County to become a complete streets county, a leader in Florida, and the nation.

RESOLVED, that the Board of Commissioners urges the State of Florida, the Florida Department of Transportation, the Lee County Metropolitan Planning Organization, and all the other cities and towns within Lee County to embrace and adopt complete streets guidelines and policies and integrate them into their standard street design and operations. Specifically, the BoCC requests that the Lee MPO incorporate complete streets policies and principles in the countywide bike and pedestrian master plan currently under development.

RESOLVED, that the Board of Commissioners urges the President and the members of the United States Congress to support the Complete Streets Act legislation and the adoption of its principles throughout the development of the next transportation authorization bill.

RESOLVED, that the County Clerk is instructed to transmit a copy of this Resolution to the President of the United States, the United States Senate Majority Leader, the Speaker of the United States House of Representatives, the Secretaries of the United States and Florida Departments of Transportation, Lee County's congressional delegation in Washington [Senators Nelson & LeMieux, and Rep. Connie Mack], and the Director of the Lee County Metropolitan Planning Organization.

ROBERT JANES	<u>Aye</u>
A. BRIAN BIGELOW	<u>Aye</u>
RAY JUDAH	<u>Aye</u>
TAMMARA HALL	<u>Absent</u>
FRANK MANN	<u>Aye</u>

DULY PASSED AND ADOPTED THIS 10th DAY OF November, 2009.

**ATTEST:
CHARLIE GREEN, CLERK**

**BOARD OF COUNTY COMMISSIONERS
OF LEE COUNTY, FLORIDA**

By: Marcia Wilson
Deputy Clerk

By: [Signature]
Chair



APPROVED AS TO FORM:

By: [Signature]
Office of the County Attorney

Attachment 4

Lee County's Greenways System Master Plan

Lee County Greenways System Master Plan

This is a map visualizing the Greenway System Plan Corridors. A Greenway Multi-Use Trail (greenbelt) or linear park is a corridor of protected open space that is managed for conservation and or recreation. A rail/trail project can be considered a greenway. Greenway Systems are regional in nature.

Connector Trails are internal to Lee County and can be greenway

Lee Plan - Greenways:

Objective 40.4

Policy 77.3.6

Policy 77.3.7

Policy 80.1.2

Goal 82

Goal 85

Policy 107.1.1

Map 22



LEE COUNTY
PARKS AND RECREATION
WWW.LEEPARKS.ORG



Legend:

Greenways System

- 50 Miles **Captiva-Hendry-Collier Trail**
- 35 Miles **Charlotte-Lee-Collier Trail**
- 45 Miles **Charlotte-Lee-Hendry Trail**
- 65 Miles **Pine Island-Hendry Trail**
- 153 Miles **Connector Trails**
- 170 Miles **Great Calusa Blueway**



This map is for Informational and Planning Purposes Only. Created 08.2008

Bike Pedestrian Facilities Maps are available from the Metropolitan Planning Organization

Blueway Paddling Maps are available from Lee County Parks & Recreation

Attachment 5

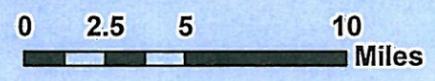
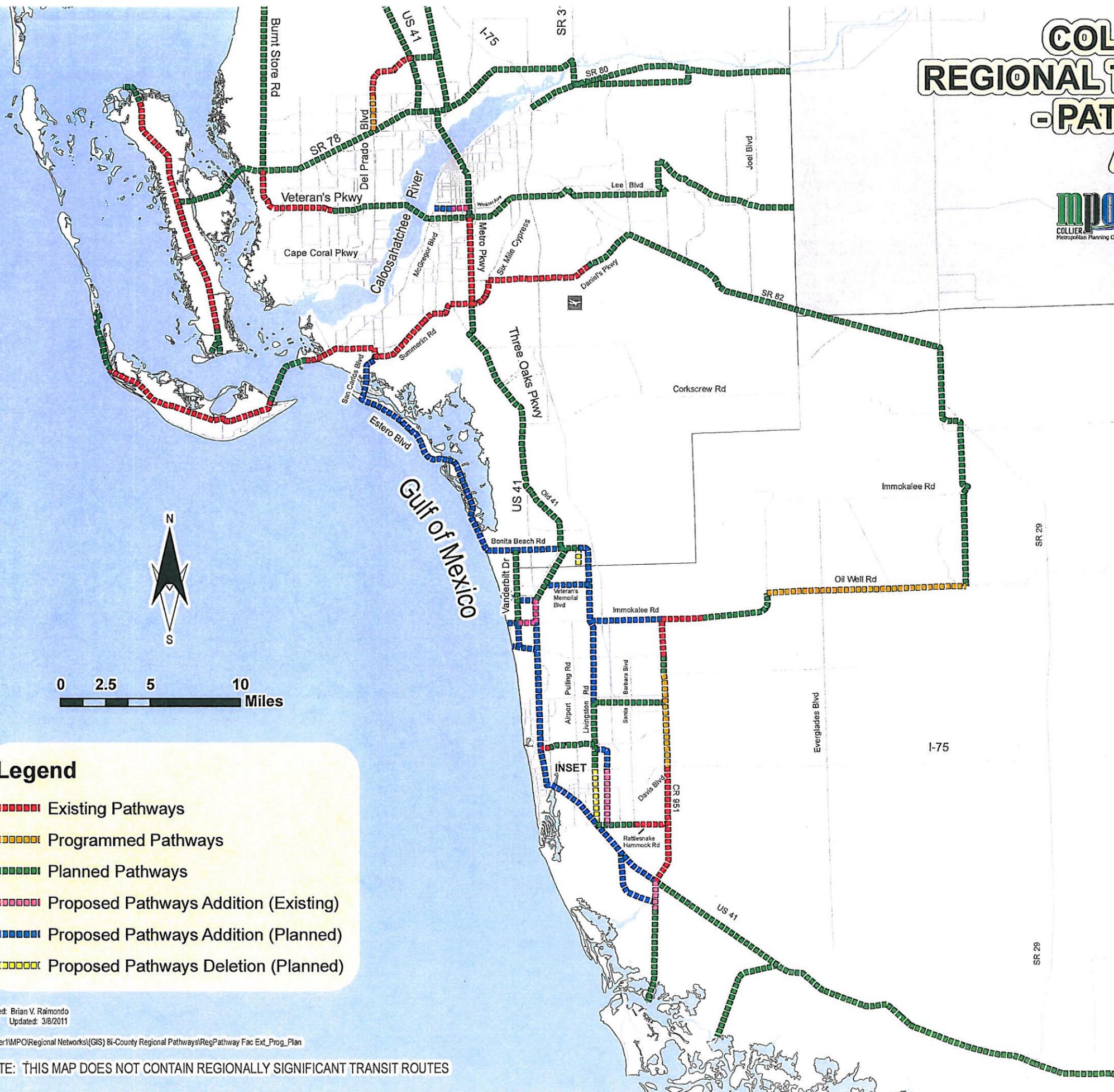
Collier-Lee MPP0, Bi-County Regional Transportation Network-Pathways Component Map

COLLIER-LEE BI-COUNTY REGIONAL TRANSPORTATION NETWORK - PATHWAYS COMPONENT - Amended: 3/19/10

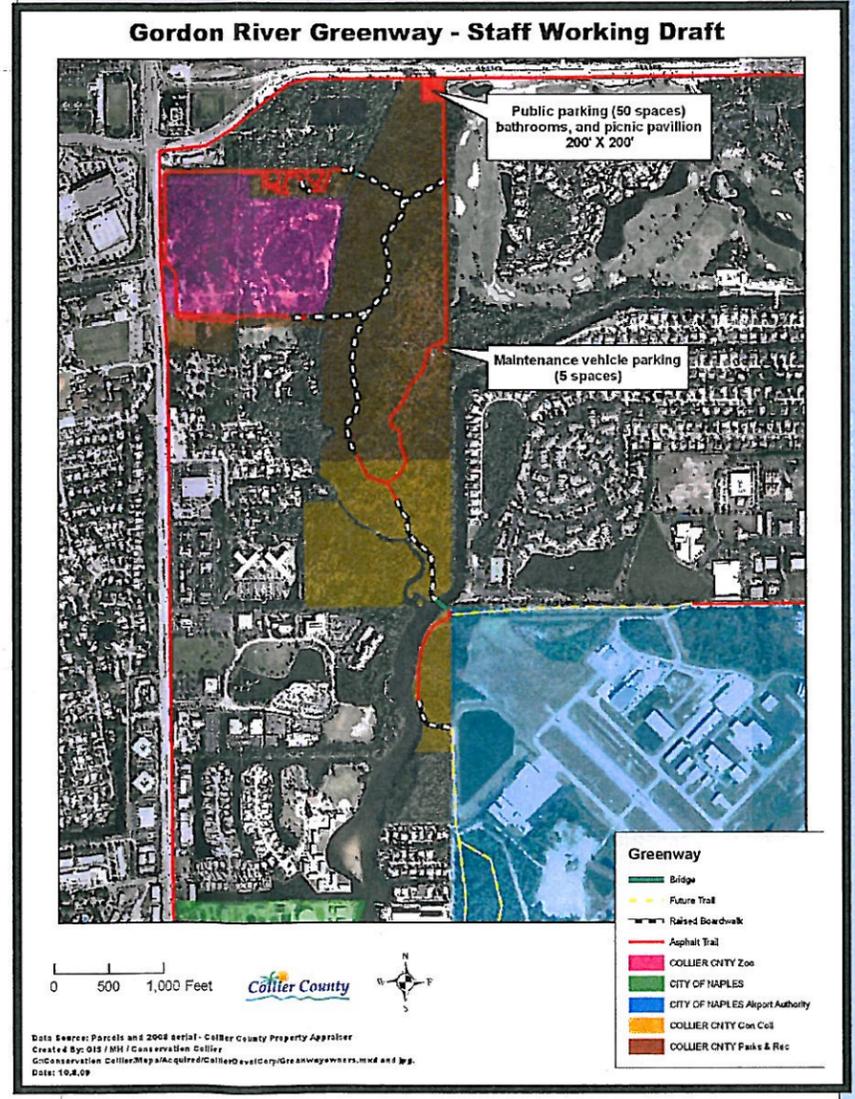


ATTACHMENT NO. **A**

INSET



- Legend**
- Existing Pathways
 - Programmed Pathways
 - Planned Pathways
 - Proposed Pathways Addition (Existing)
 - Proposed Pathways Addition (Planned)
 - Proposed Pathways Deletion (Planned)



Created: Brian V. Raimondo
Updated: 3/8/2011
\\Server1\MPO\Regional Networks\GIS\Bi-County Regional Pathways\RegPathway Fac Ext_Prog_Plan

NOTE: THIS MAP DOES NOT CONTAIN REGIONALLY SIGNIFICANT TRANSIT ROUTES

Continues to Krome Ave in Dade County →

Attachment 6

Public Workshop and Survey Results

NEEDS WORKSHOP

July 19

6:00-8:00 PM

Harborside Convention Center

Agenda

- | | |
|------------|------------------------------|
| 6:00-6:10 | Sign In/Welcome |
| 6:10- 6:20 | Project & Team Introductions |
| 6:20-6:45 | Real Time Polling |
| 6:45-7:15 | Group Session |
| BREAK | |
| 7:30-8:00 | Polling Follow Up & Wrap Up |



Lee MPO Bicycle Pedestrian Master Plan

Needs Workshop Sign In Sheet

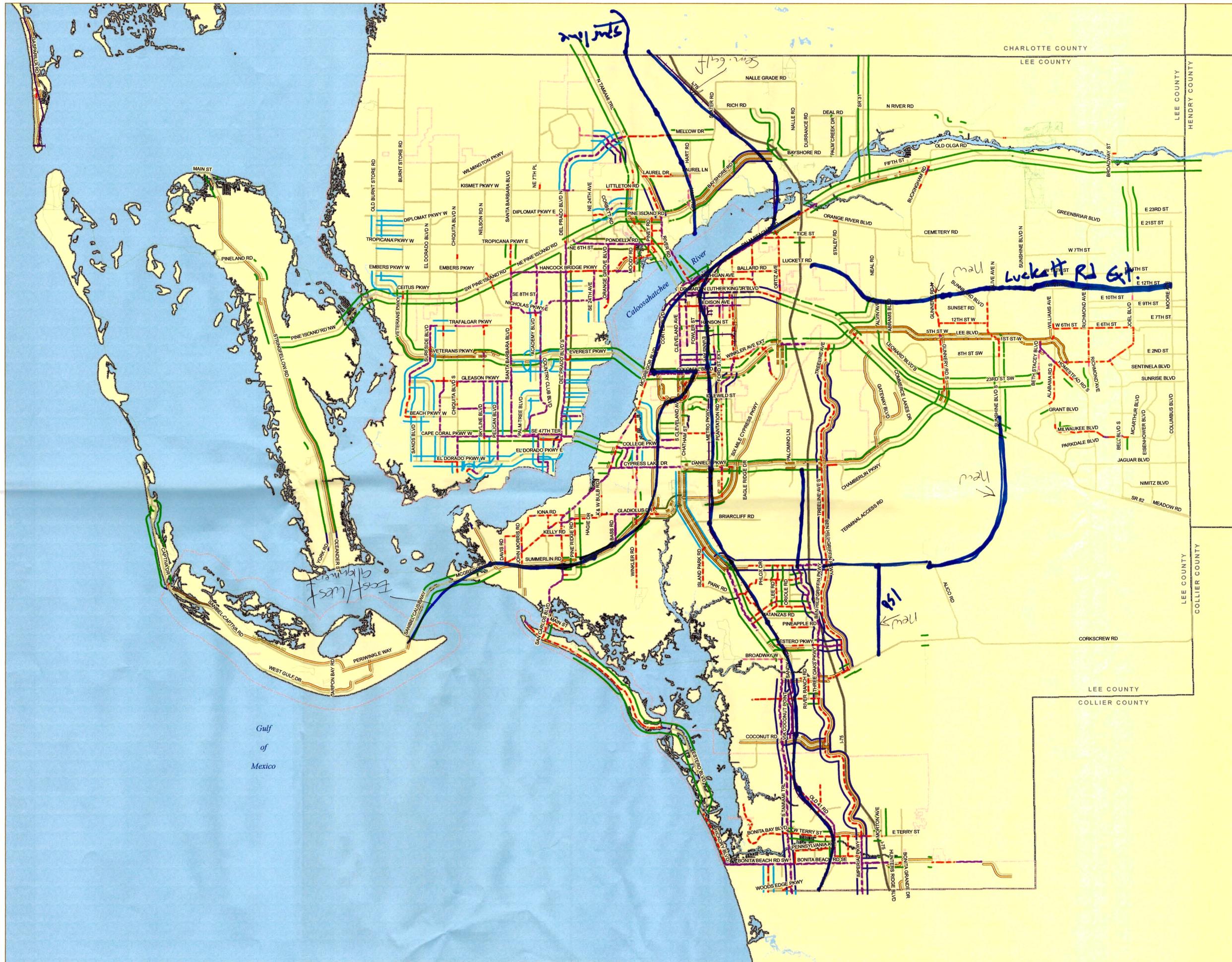
Monday, July 19, 2010

6:00 - 8:00 PM

Harborside Convention Center, Fort Myers

Please Print Clearly

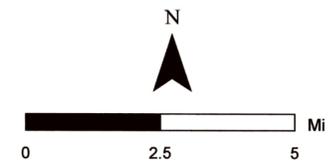
Name	Address	Phone Number	E-mail Address
Peter Ahlgren	442 Adelphi Court Ft. Myers 33914	239-481-5940	LP Ahlgren@yahoo.com
AL STEWART	9170 Bayberry Blvd 203 Ft. Myers, FL 33908	239-267-7152	STEWLEX@Comcast.NET
JOHN PATTERSON	4246 HARTSOOK AVE. NORTH PORT, FL 34287	941 429-6759	John@fortmyerbeachFL.gov
Elizabeth P. Spang	955 Deep Lagoon Ln FM 33919	239-910-0242	traverso4me@comcast.net / espang@lee.gov.com
molly meadows	8711 Wesleyan Dr FM 33919	239 980 2037	mmeadows@sfwmd.gov
DARYL WALK	5544 PERNOX DR Ft Myers	239-949-6246	
Darla Letourneau	1679 Serenity Ln Sanibel	239-472-1179	dletourneau@bikewalklee.org
Guy Hackott	405 NE 23rd AVE CL 33909		ghackott@comcast.net
ANDY GETCH	1500 MONROE STREET, LEE COUNTY DOT	239-533-8510	GETCHAJ@LEE.GOV.COM
Phil Tindall	6365 Furman Blvd. Ft. Myers, FL 33919	239-281-6395	philtindall@allergov.net
Peter Blackwell	1500 MONROE ST. FT MYERS 33902	239-533-8317	BLACKWPC@LEE.GOV.COM
Sally & Billy Kirkland	2090 SUNSET AR SANIBEL FL 33957	239-472-4919	Salli@segwayfanibel.com
Roger Fraser	804 Arthur Ave Lehigh Hills	239 368-0452	fraser@lee.gov.com
Gary Verwith	8904 Baytonne Loop Ft Myers 33908	239-560-6779	Verwith@AOL.com
Margaret Banyan	4732 Tammie Ln FM FL 33905	890-7850	mbanyan@fgcu.edu
JOE RECKZ	POB 2413, FM, 33902	239.898.5717	JOETRECKZ@GMAIL.com
Bankers People Sanibel Planning	800 Dunlop Road Sanibel, FL 33957	239-472-4136	bpp@mysanibel.com
Mike & Ally Jackson	2513 SE 24th PL Cape Coral FL 33904	572-7843	sj@jacksonpr.com
MIKE SWANSON	2710 PER PRADO BLVD S #2-115 CAPE 33904	772 2041	MIKE@PRESIDENT@CAROOSA RIDERS.com
VENKAT VATTIKUTI	18500 Mandocumena SQ, Port Charlotte, FL 941-623-1064		VENKAT.VATTIKUTI@CharlotteFL.com
Kamille MacFhee	1702 SE 13th ST Capel Coral	707 7275	Kmacfhee@lee.gov.com
MAD Noble			
PERSIDES ZAMBRANO			
→ BILLY KIRKLAND			→ billy@billysrentals.com

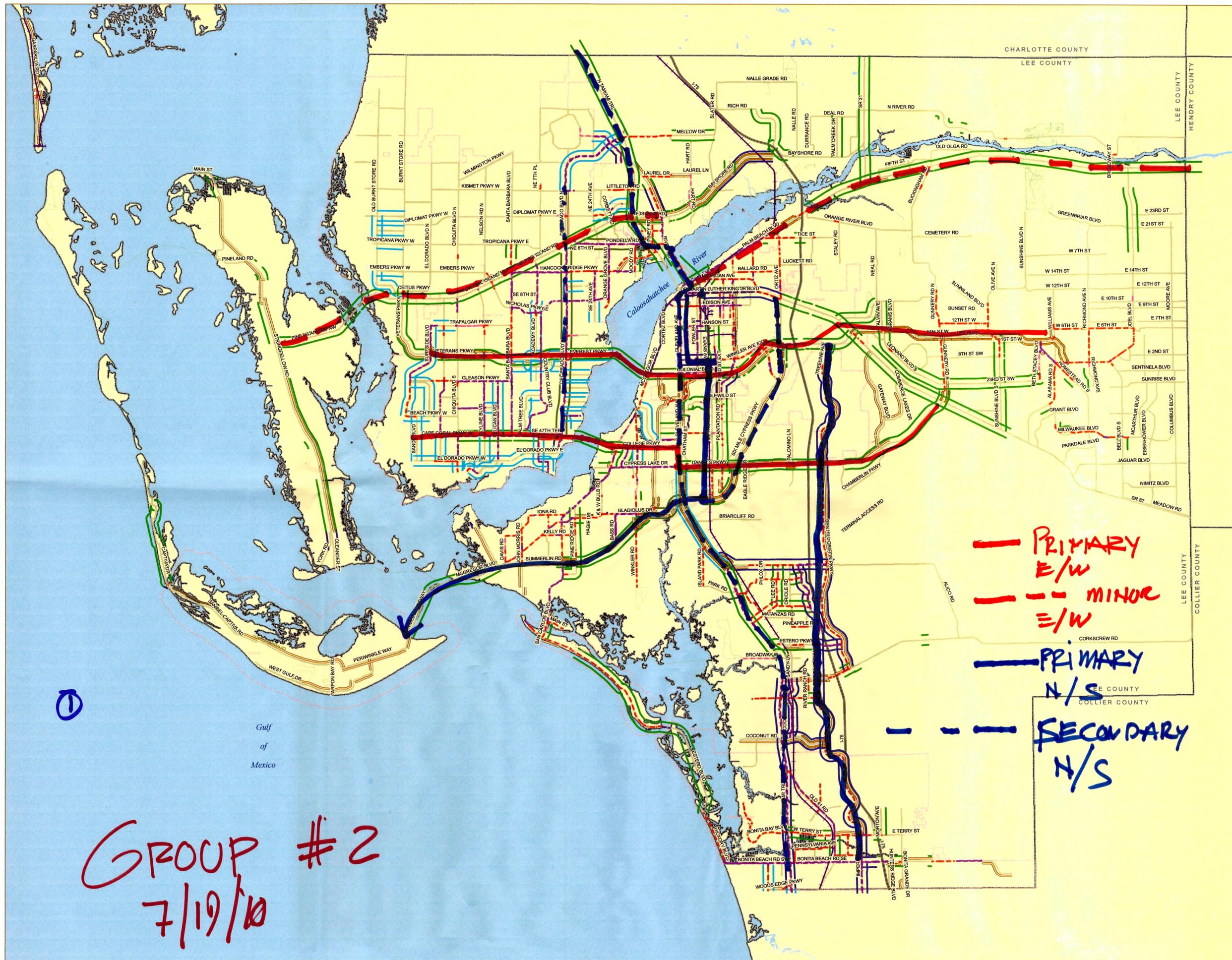


Legend

- Railroads
- Sidewalks**
 - Double Sidewalk
 - Sidewalk
 - Substandard Dbl Sidewalk
 - Substandard Sidewalk
- Bike**
 - Bike Lane
 - Designated Bike Lane
 - Paved Shoulder
 - Wide Curb Lane
- Shared Use**
 - Shared Use
 - Double Shared Use
 - One Way Shared Use
 - Lee County Parks and Recreational Trails
- I-75
- Collector and Arterial Roads
- City Limits

BIKE AND PEDESTRIAN FACILITIES INVENTORY MAP ON ARTERIAL AND COLLECTOR ROADS





Legend

- Railroads
- Sidewalks**
 - Double Sidewalk
 - Sidewalk
 - Substandard Dbl Sidewalk
 - Substandard Sidewalk
- Bike**
 - Bike Lane
 - Designated Bike Lane
 - Paved Shoulder
 - Wide Curb Lane
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 - Shared Use
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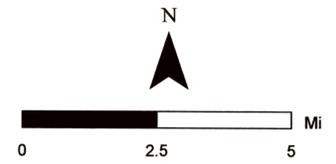
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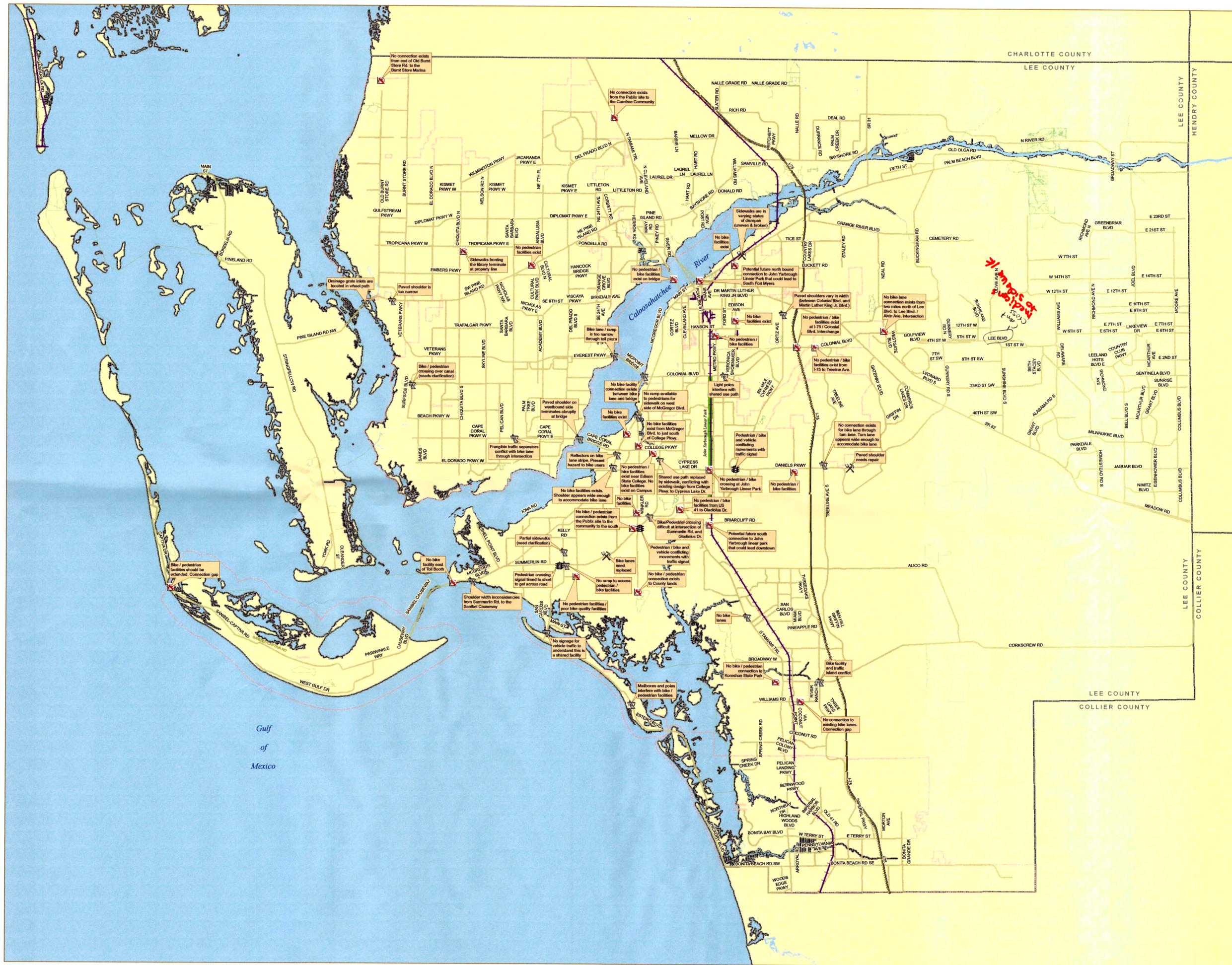
GROUP #2
7/19/10

— PRIMARY E/W
 - - - MINOR E/W
 — PRIMARY N/S
 - - - SECONDARY N/S

2

BIKE AND PEDESTRIAN FACILITIES INVENTORY MAP ON ARTERIAL AND COLLECTOR ROADS





Legend

Areas of Concern

- MAINTENANCE
- NO FACILITIES
- OPERATIONS
- DESIGN

John Yarbrough Linear Park

Railroads

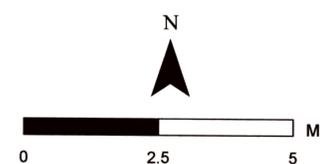
Lee County Parks and Recreational Trails

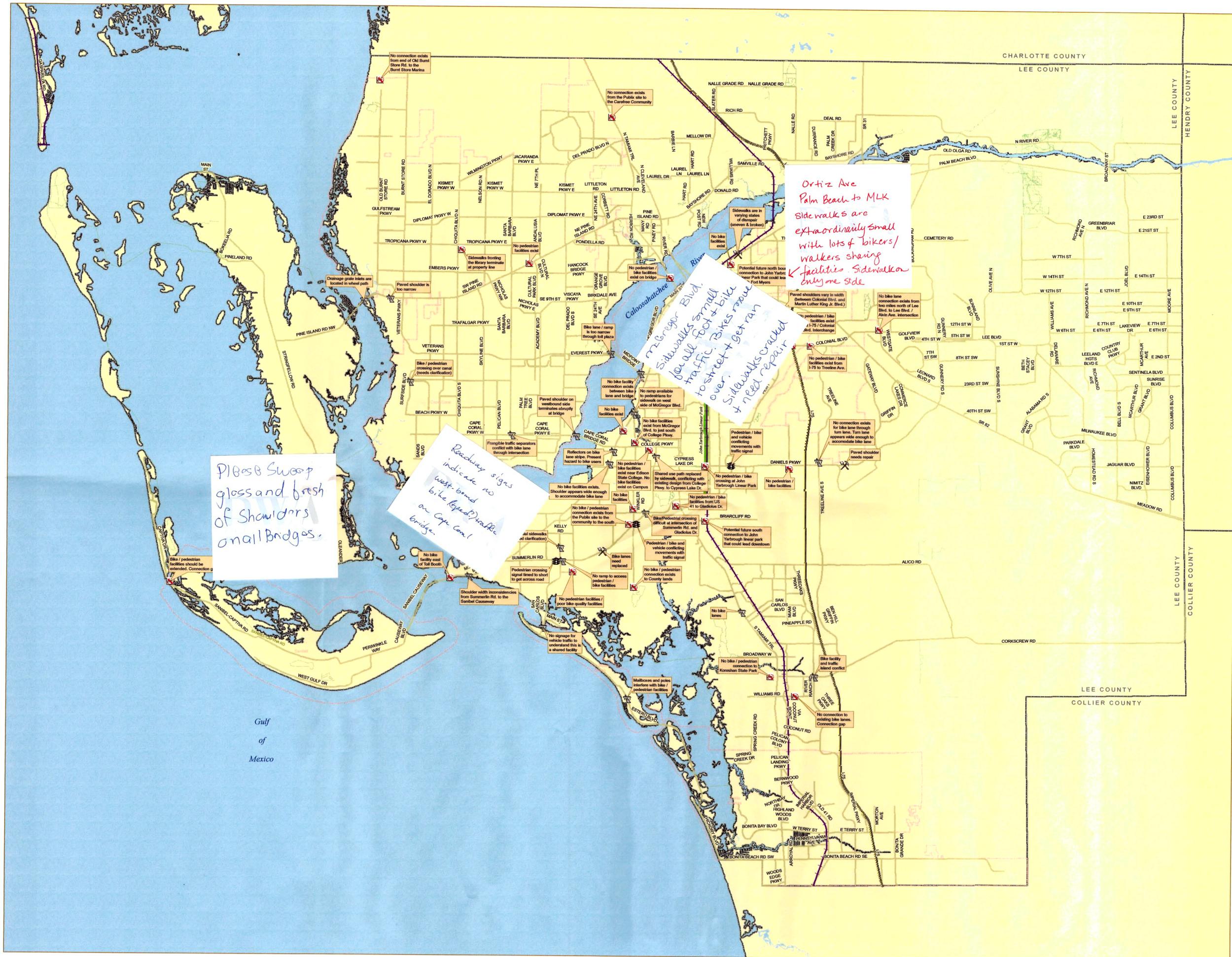
I-75

Collector and Arterial Roads

City Limits

ISSUES IDENTIFIED BY THE PUBLIC



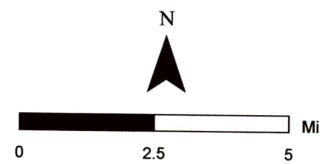


Legend

Areas of Concern

- MAINTENANCE
- NO FACILITIES
- OPERATIONS
- DESIGN
- John Yarbrough Linear Park
- Railroads
- Lee County Parks and Recreational Trails
- I-75
- Collector and Arterial Roads
- City Limits

ISSUES IDENTIFIED BY THE PUBLIC



Priority Comments Received at the July 19, 2010 Lee MPO Workshop:

Sheet 1

East-West

- Luckett Road (New Alignment)
- Connection from Sanibel - Palm Beach
- Luckett Road Extension (New Alignment)

North-South

- Gulf Seminole Line
- Sunshine Blvd/951 (New Alignment)
- Abandoned spur from Charlotte County south a bit
- Alignment between Daniels Pkwy South (New Alignment)

Sheet 2

- Colonial / SR 82
- Us 41 / North-South Rail Trail
- Bonita Beach Rd
- Summerlin Rd
- Business access to trails / Trail heads (Andrea Ln)
- Eliminate Gaps

Sheet 3

- Pine Island Rd
- Burnt Store Rd
- McGregor Blvd
- Colonial Blvd
- All bridges

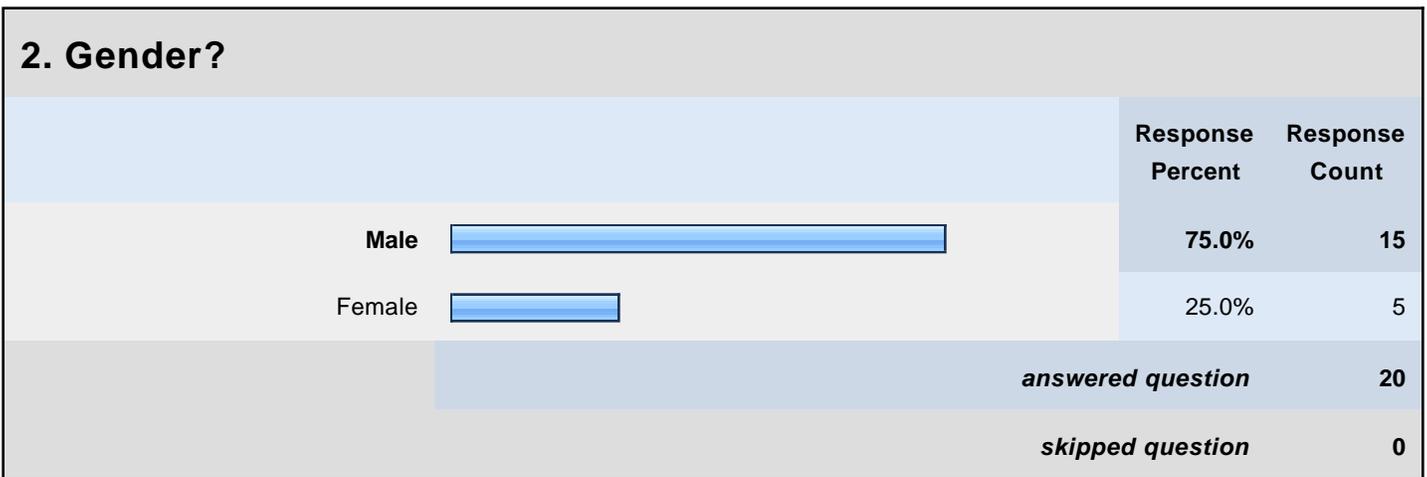
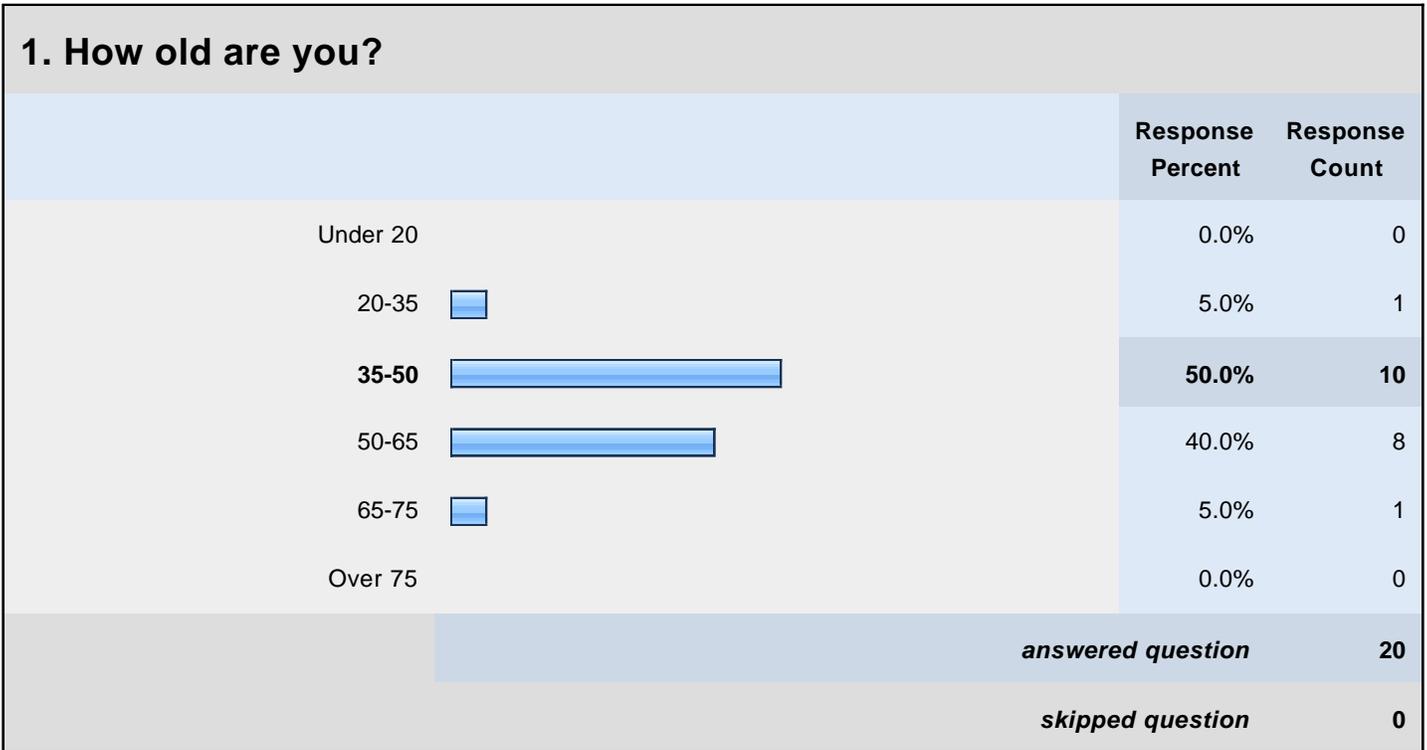
Sheet 4

- Multi-Use Paths
- Eliminate ADA Barriers
- Filling Gaps
- Alternate pedestrian facility other than paved shoulders/roadway
- Safety Retro fits

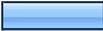
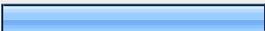
Sheet 5

- On Road biking / Recreational hiking
- Pedestrian oriented facilities
- Pedestrian access on bridges
- Sidewalk/Pedestrian gaps - ADA compliance
- Connect Parks
- More marked and maintained bike lanes
- Signage / Traffic calming





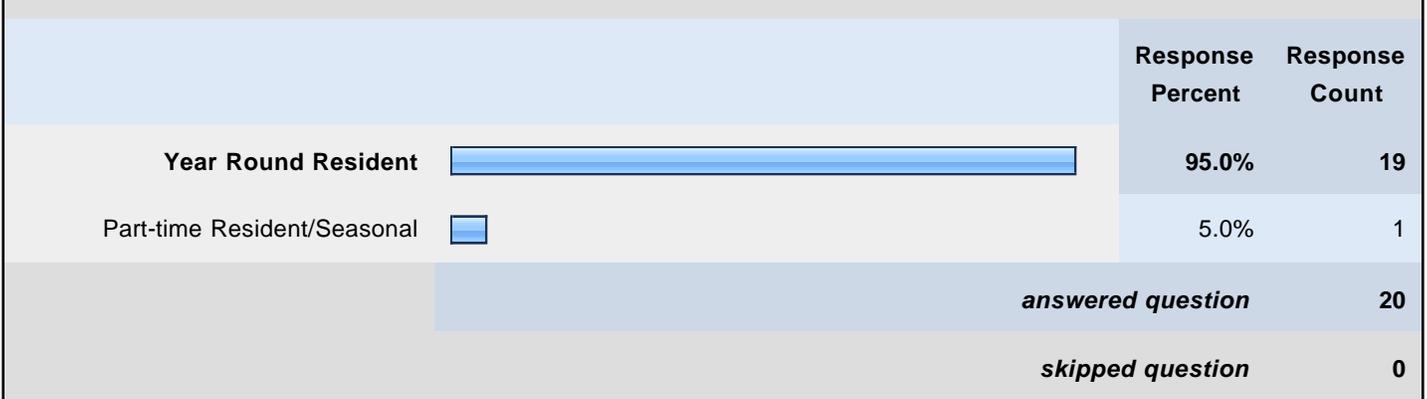
3. In which area of Lee County do you reside?

	Response Percent	Response Count
Cape Coral 	15.0%	3
City of Fort Myers 	35.0%	7
Sanibel/Captiva 	5.0%	1
Fort Myers Beach 	5.0%	1
Bonita Springs	0.0%	0
Unincorporated Lee County 	40.0%	8
Outside of Lee County	0.0%	0
<i>answered question</i>		20
<i>skipped question</i>		0

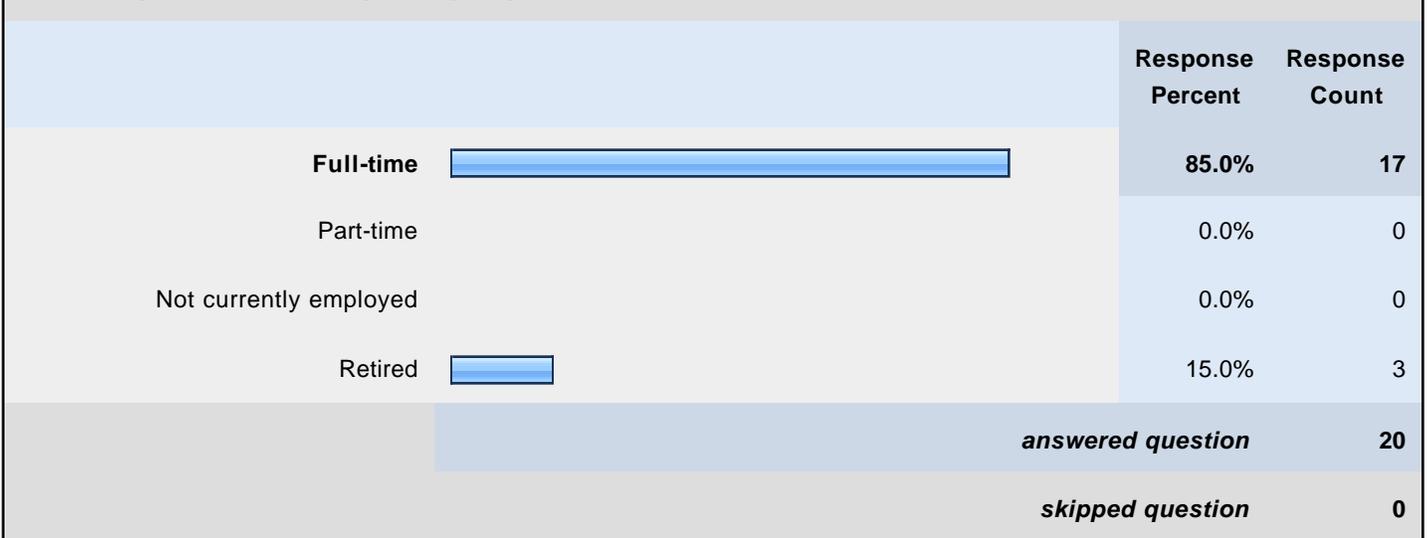
4. If you answered "Unincorporated", (using the image above) what planning community do you live in?

	Response Percent	Response Count
Alva	0.0%	0
Buckingham	0.0%	0
Ft. Myers Shores 	12.5%	1
Burnt Store	0.0%	0
North Ft. Myers 	12.5%	1
Bayshore	0.0%	0
Estero	0.0%	0
San Carlos	0.0%	0
Daniels Parkway 	12.5%	1
Gateway	0.0%	0
Airport	0.0%	0
Iona 	25.0%	2
McGregor 	12.5%	1
Lehigh Acres 	12.5%	1
Pine Island	0.0%	0
Boca Grande	0.0%	0
South Ft. Myers 	12.5%	1
answered question		8
skipped question		12

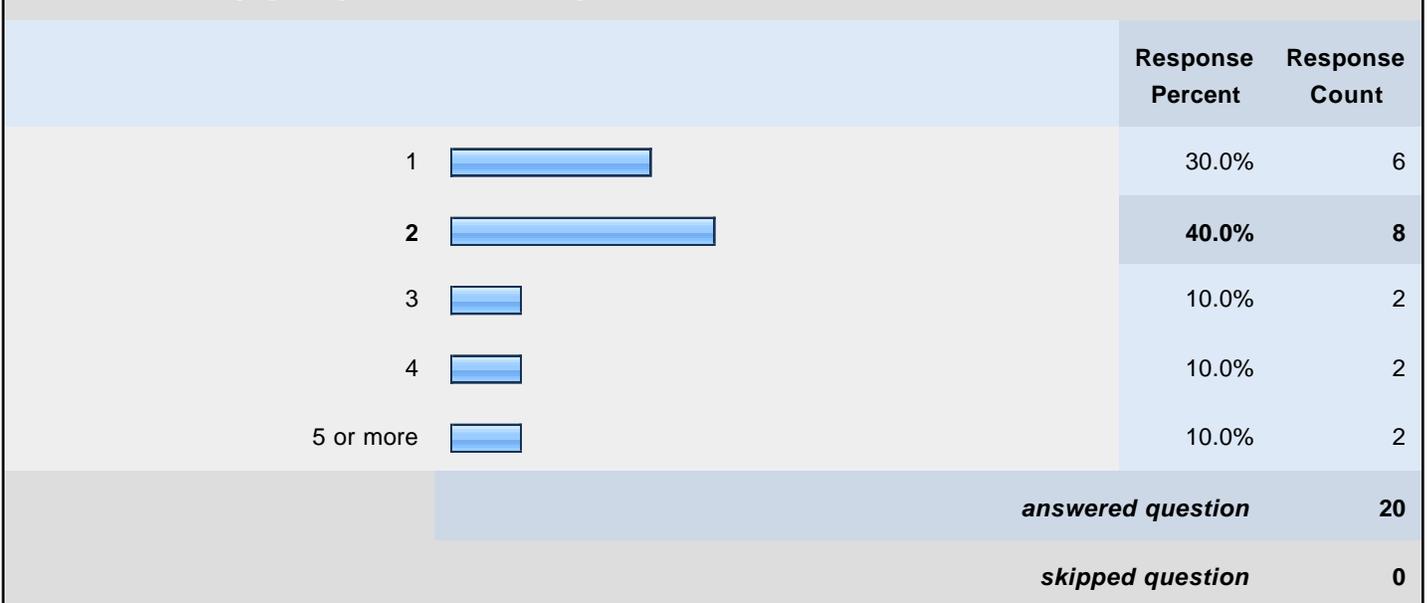
5. Which of the following describes your residency in Lee County?



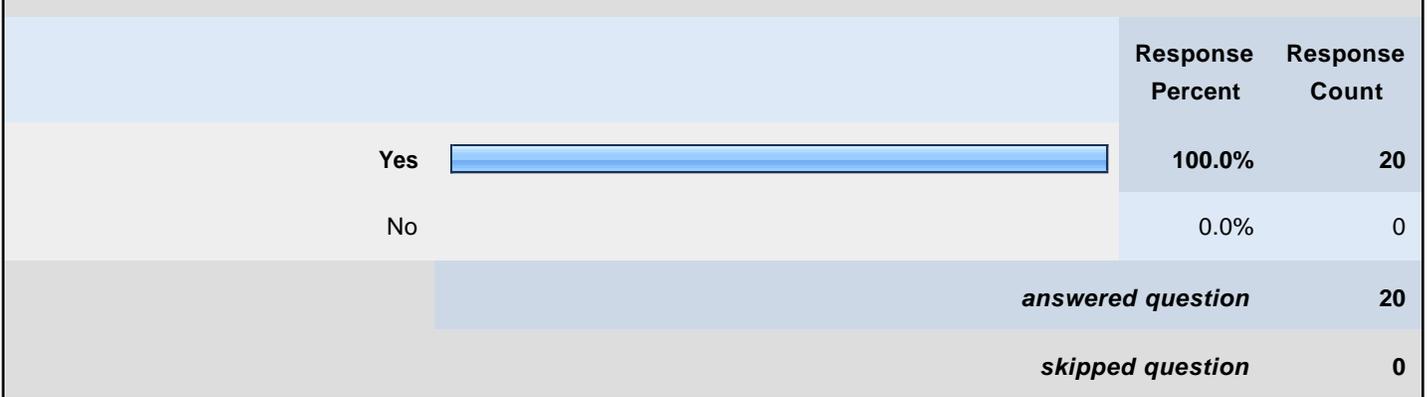
6. Are you currently employed?



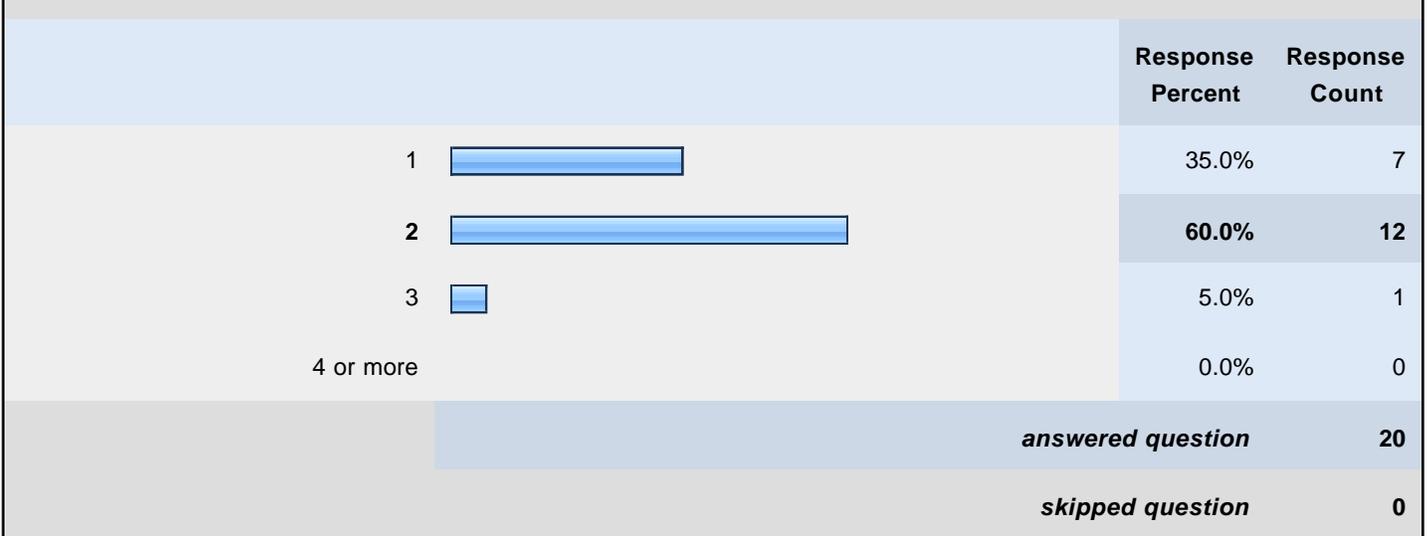
7. How many people reside in your household?



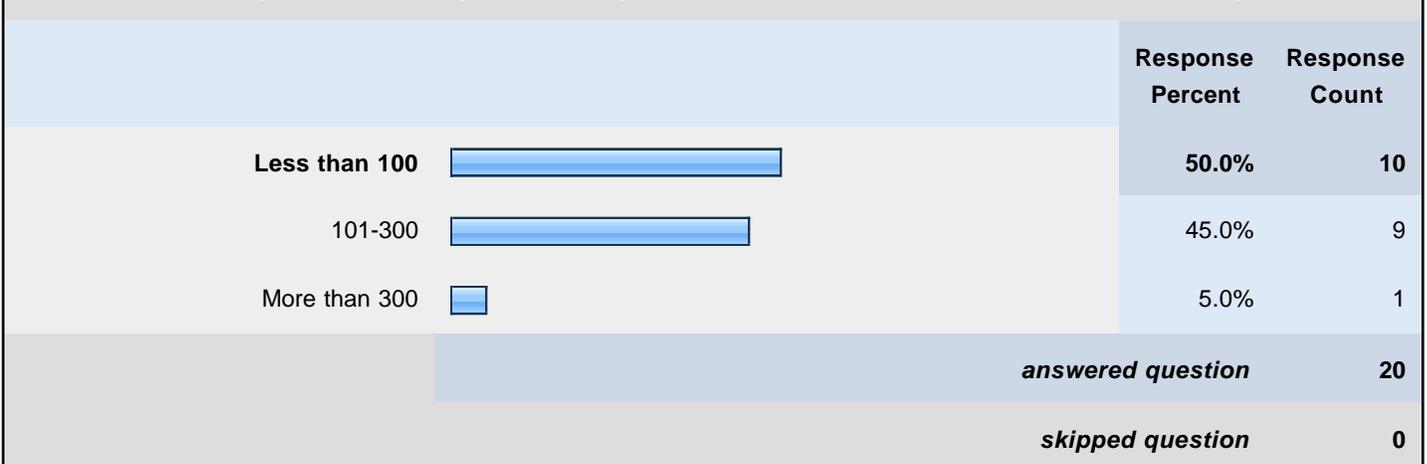
8. Does any member of your household own a car?



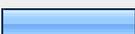
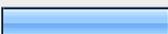
9. How many cars do you and your household own?



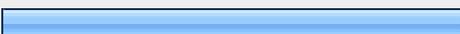
10. How many miles do you and your household drive in an average week?



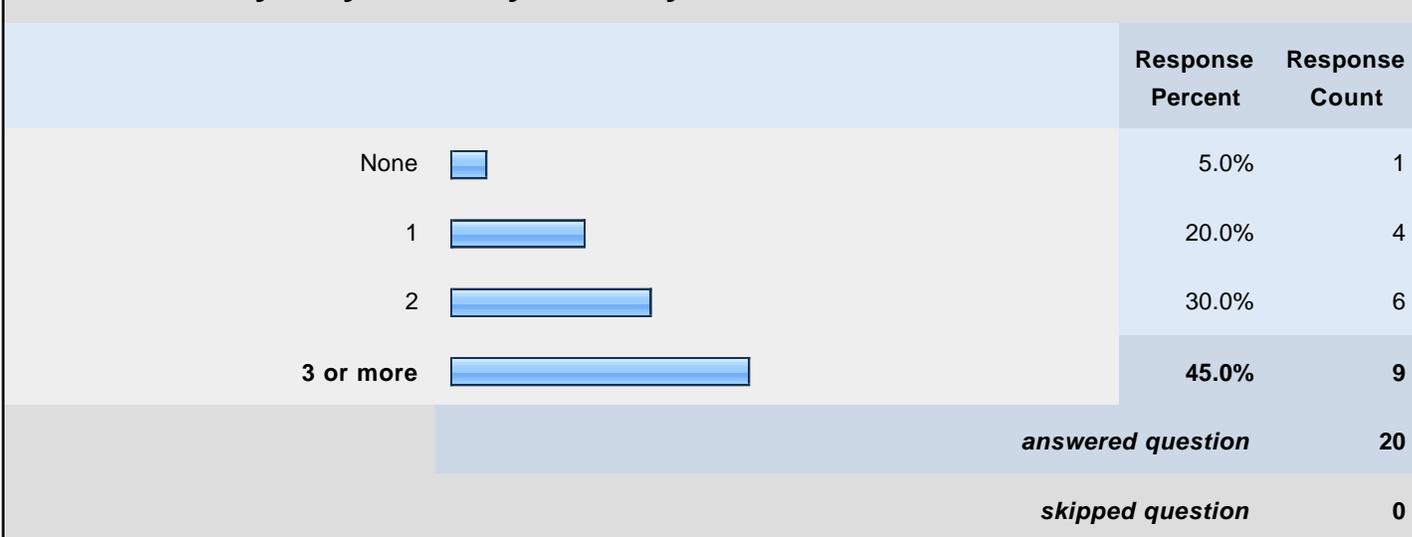
11. How far is your average commute or trip (round-trip)?

	Response Percent	Response Count
0-5 miles 	20.0%	4
6-10 miles 	35.0%	7
11-20 miles 	25.0%	5
21 or more miles 	20.0%	4
<i>answered question</i>		20
<i>skipped question</i>		0

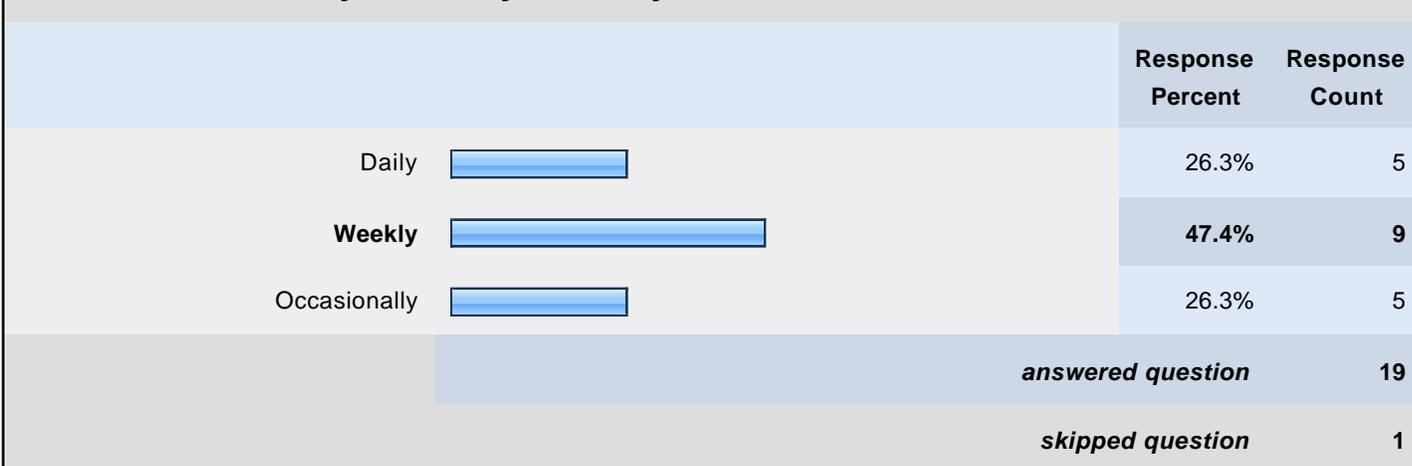
12. How often do you or members of your household use public transit in Lee County?

	Response Percent	Response Count
Never 	70.0%	14
Sometimes 	30.0%	6
Often	0.0%	0
Everyday	0.0%	0
<i>answered question</i>		20
<i>skipped question</i>		0

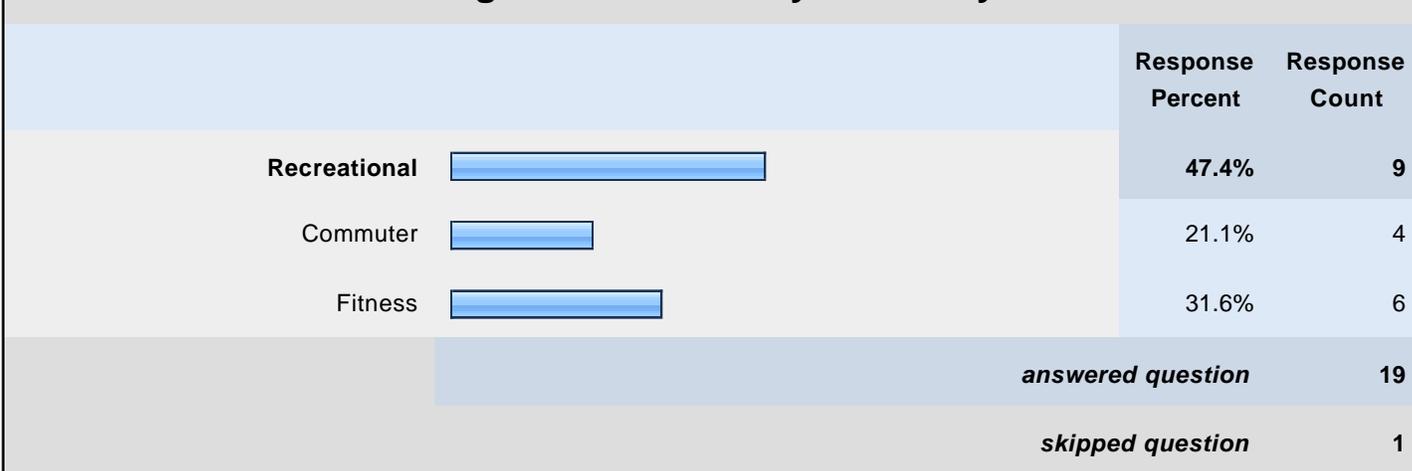
13. How many bicycles do you and your household own or use?



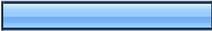
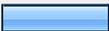
14. How often do you ride your bicycle?



15. Which of the following best describes you as a cyclist?



16. Which of the following is your primary reason for riding your bicycle?

	Response Percent	Response Count
Leisure 	31.6%	6
Exercise 	31.6%	6
Commuter to work 	21.1%	4
Commuter to school	0.0%	0
Competition/Group Rides 	15.8%	3
answered question		19
skipped question		1

17. Which facilities do you prefer to use for riding?

	Response Percent	Response Count
Bike Lanes (on road) 	21.1%	4
Paved Shoulders 	15.8%	3
Sidewalks 	10.5%	2
Multi-use Paths 	47.4%	9
Wilderness Trail (trails located in park and rec areas) 	5.3%	1
answered question		19
skipped question		1

18. Which would you describe as your primary mode of transportation?

	Response Percent	Response Count
Car 	80.0%	16
Motorcycle/Scooter	0.0%	0
Public Transit	0.0%	0
Bicycle 	20.0%	4
Walking	0.0%	0
answered question		20
skipped question		0

19. If you had to choose, you would prefer to be?

	Response Percent	Response Count
Rock Star 	30.0%	6
Movie Star 	10.0%	2
Professional Athlete 	35.0%	7
Transportation Planner 	15.0%	3
Engineer 	10.0%	2
answered question		20
skipped question		0

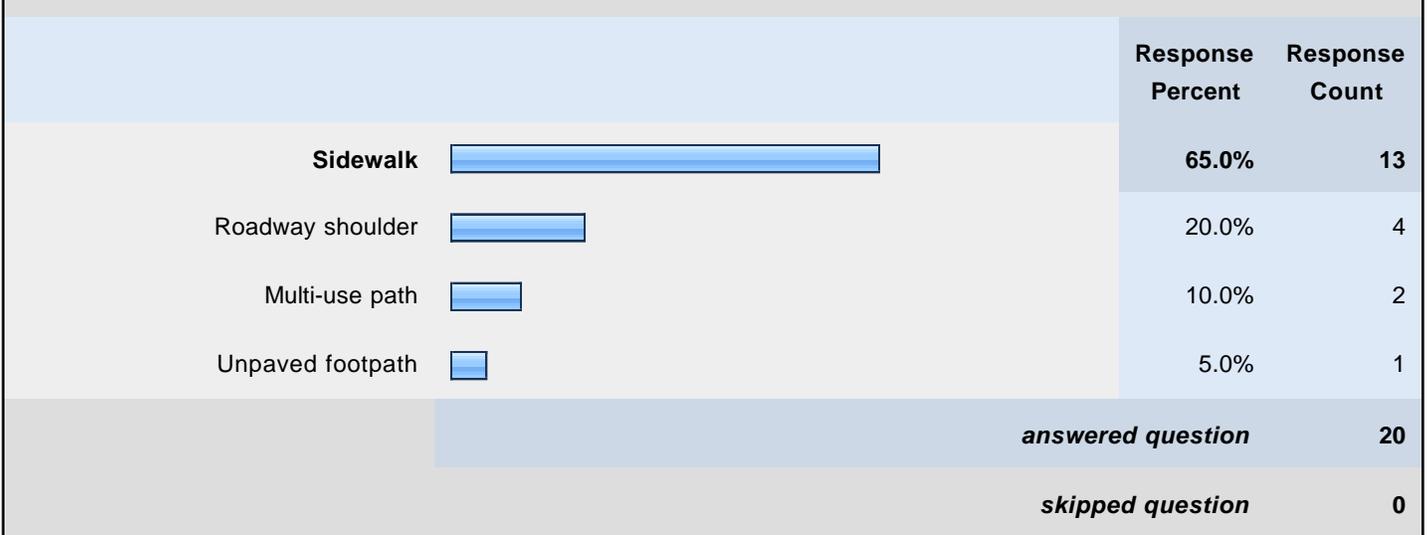
20. For which of the following activities do you use Lee County bike/ped facilities the most?

	Response Percent	Response Count
Walking 	35.0%	7
Running	0.0%	0
In-line Skating	0.0%	0
Cycling 	65.0%	13
Other	0.0%	0
<i>answered question</i>		20
<i>skipped question</i>		0

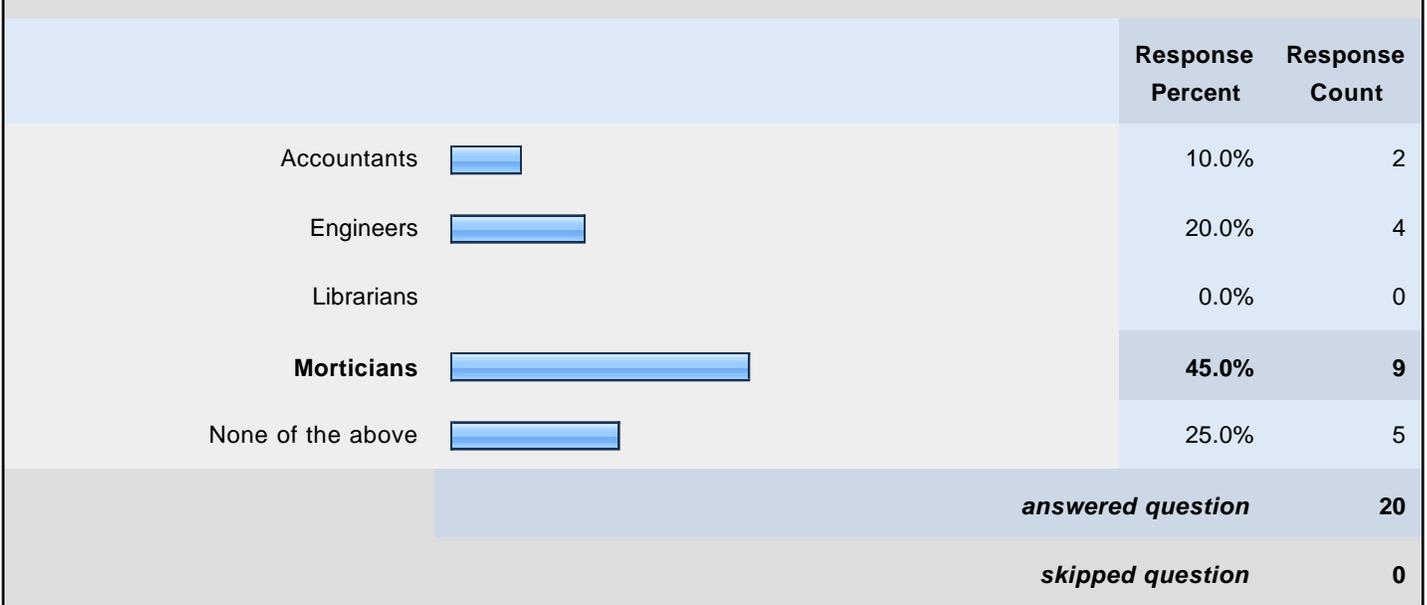
21. Which of the following is your primary reason for walking or running?

	Response Percent	Response Count
Leisure 	15.0%	3
Exercise 	70.0%	14
Commute to work 	10.0%	2
Commute to school	0.0%	0
Competition 	5.0%	1
<i>answered question</i>		20
<i>skipped question</i>		0

22. Which facilities do you most commonly use for walking?



23. Transportation Planners are more fun than?



24. Please grade how well each of the following 5 facilities meet user needs in Lee County:

	Poor	Fair	Average	Good	Excellent	Rating Average	Response Count
Bike Lanes	31.6% (6)	36.8% (7)	21.1% (4)	10.5% (2)	0.0% (0)	2.11	19
Paved Shoulders	26.3% (5)	36.8% (7)	26.3% (5)	10.5% (2)	0.0% (0)	2.21	19
Multi-use Paths	15.8% (3)	47.4% (9)	21.1% (4)	15.8% (3)	0.0% (0)	2.37	19
Sidewalks	15.8% (3)	36.8% (7)	26.3% (5)	21.1% (4)	0.0% (0)	2.53	19
Wilderness Trails	10.5% (2)	36.8% (7)	31.6% (6)	15.8% (3)	5.3% (1)	2.68	19
<i>answered question</i>							19
<i>skipped question</i>							1

25. Please rank the improvement needs for existing facilities in Lee County. (1=Top Priority)

	1	2	3	4	5	Rating Average	Response Count
Bike Lanes	35.3% (6)	29.4% (5)	23.5% (4)	5.9% (1)	5.9% (1)	3.82	17
Paved Shoulders	5.9% (1)	29.4% (5)	11.8% (2)	41.2% (7)	11.8% (2)	2.76	17
Multi-use paths	17.6% (3)	29.4% (5)	35.3% (6)	17.6% (3)	0.0% (0)	3.47	17
Sidewalks	35.3% (6)	11.8% (2)	17.6% (3)	35.3% (6)	0.0% (0)	3.47	17
Wilderness Trails	5.9% (1)	0.0% (0)	11.8% (2)	0.0% (0)	82.4% (14)	1.47	17
<i>answered question</i>							17
<i>skipped question</i>							3

**26. Please rank the top 3 features you feel are priorities for improvement.
(1= Top Priority)**

	1	2	3	Rating Average	Response Count
Crosswalks	15.4% (2)	46.2% (6)	38.5% (5)	1.77	13
Pathway & Roadside Lighting	33.3% (2)	33.3% (2)	33.3% (2)	2.00	6
Education Programs	50.0% (1)	50.0% (1)	0.0% (0)	2.50	2
Amenities (such as water fountains and bike racks)	33.3% (2)	33.3% (2)	33.3% (2)	2.00	6
Signage	20.0% (2)	30.0% (3)	50.0% (5)	1.70	10
Design/Safety Improvements	57.1% (8)	21.4% (3)	21.4% (3)	2.36	14
<i>answered question</i>					17
<i>skipped question</i>					3

27. When allocating a limited budget for all Bike/Ped needs, what should be the top 3 priorities? (1=Top Priority)

	1	2	3	Rating Average	Response Count
Bike facilities	30.8% (4)	46.2% (6)	23.1% (3)	2.08	13
Ped facilities	50.0% (4)	50.0% (4)	0.0% (0)	2.50	8
Multi-use facilities	22.2% (2)	44.4% (4)	33.3% (3)	1.89	9
Off-road multi-use trails	33.3% (1)	0.0% (0)	66.7% (2)	1.67	3
Cross-country/Long rides	0.0% (0)	0.0% (0)	100.0% (3)	1.00	3
Education funding	0.0% (0)	0.0% (0)	100.0% (3)	1.00	3
Safety features	66.7% (6)	11.1% (1)	22.2% (2)	2.44	9
Amenities(such as water fountains and bike racks)	0.0% (0)	0.0% (0)	100.0% (1)	1.00	1
Signage	0.0% (0)	100.0% (2)	0.0% (0)	2.00	2
<i>answered question</i>					17
<i>skipped question</i>					3

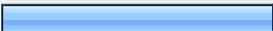
28. When developing priorities for areas to improve, rank the order of importance. (1=Most Important)

	1	2	3	4	5	Rating Average	Response Count
Transit stops	0.0% (0)	5.9% (1)	29.4% (5)	29.4% (5)	35.3% (6)	2.06	17
Schools	23.5% (4)	17.6% (3)	35.3% (6)	5.9% (1)	17.6% (3)	3.24	17
High accident areas	17.6% (3)	29.4% (5)	5.9% (1)	29.4% (5)	17.6% (3)	3.00	17
Higher density areas	5.9% (1)	35.3% (6)	17.6% (3)	23.5% (4)	17.6% (3)	2.88	17
Connections to major traffic generators/ attractors	52.9% (9)	11.8% (2)	11.8% (2)	11.8% (2)	11.8% (2)	3.82	17
<i>answered question</i>							17
<i>skipped question</i>							3

29. When developing priorities for facility needs, rank the order of importance to improve? (1=Most Important to Improve)

	1	2	3	4	5	Rating Average	Response Count
Eliminate sidewalk gaps	47.1% (8)	17.6% (3)	17.6% (3)	11.8% (2)	5.9% (1)	3.88	17
Provide more dedicated bike lanes	11.8% (2)	17.6% (3)	41.2% (7)	11.8% (2)	17.6% (3)	2.94	17
Eliminate gaps in bicycle system	29.4% (5)	47.1% (8)	11.8% (2)	11.8% (2)	0.0% (0)	3.94	17
Interconnect park/recreation areas	5.9% (1)	17.6% (3)	23.5% (4)	41.2% (7)	11.8% (2)	2.65	17
Off road trail network	5.9% (1)	0.0% (0)	5.9% (1)	23.5% (4)	64.7% (11)	1.59	17
<i>answered question</i>							17
<i>skipped question</i>							3

30. If the current bike/ped facilities were improved or expanded, your use of these facilities would:

		Response Percent	Response Count
Increase Significantly		41.2%	7
Increase Moderately		47.1%	8
Remain the Same		11.8%	2
<i>answered question</i>			17
<i>skipped question</i>			3

Attachment 7

PAC Meeting Agendas and Sign-in Sheets

AGENDA

Lee MPO Bicycle Pedestrian Master Plan Project Advisory Committee(PAC) Meeting #1

April 20, 2010

10:00-12:00

- I. Introduction of Project Team
- II. Introduction of Project Scope
- III. Introduction of PAC Members
- IV. Review of Project Schedule
- V. Ground-truthing and facility classification
- VI. Review of Maps/Data Collected
- VII. Discussion of Web Page and Information Sharing
- VIII. Scheduling of 2nd PAC Meeting
- IX. Adjourn Meeting

AGENDA

Lee MPO Bicycle Pedestrian Master Plan Project Advisory Committee (PAC) Meeting #2

May 25, 2010

10:00-12:00

- I. Introduction of new PAC members
- II. Introduction of William “Bill” Desantis from VHB
- III. Project status report
 - a. Data collection
 - b. Ground-truthing
 - c. Web page and file server
- IV. Best Practices and Encouraging Bike/Ped Activity Tech Memos
 - a. General discussion of preliminary draft
 - b. Priority hot topics
 - c. Feedback and data needed from group participants
- V. Exchange of information
- VI. Needs Analysis – next steps
- VII. Scheduling of 3rd PAC meeting
- VIII. Adjourn meeting

AGENDA

Lee MPO Bicycle Pedestrian Master Plan Project Advisory Committee (PAC) Meeting #3

September 23, 2010

9:00-11:30

Lee County Public Works Building

First Floor Conference Room 1B

1500 Monroe Street, Fort Myers, Florida 33901

- I. Welcome
- II. Introduction of Michael Crawford, VHB
- III. Master Plan Vision and Goals
- IV. Survey Results
- V. Final Report Outline
- VI. Preliminary Network & Matrix
- VII. Scheduling of 4th PAC meeting
- VIII. Adjourn meeting



AGENDA

Lee MPO Bicycle Pedestrian Master Plan Project Advisory Committee (PAC) Meeting #4

November 1, 2010

1. Introduction (15 Minutes)
 - ✓ Vision Statement
 - ✓ Summary Points
 - ✓ Existing Conditions
2. Process Overview (5 Minutes)
3. Vision\Consensus Map (10 Minutes)
4. Major Corridor Improvement List (15 Minutes)
5. Evaluation Criteria (15 Minutes)
6. Preliminary Application of Evaluation to Major Projects (15 Minutes)



AGENDA

Lee MPO Bicycle Pedestrian Master Plan Project Advisory Committee (PAC) Meeting #5

November 17, 2010

1:00 – 3:00

Lee County Public Works Building

First Floor Conference Room 1B

1500 Monroe Street, Fort Myers, Florida 33901

1. Review of Items 1-6
2. Preliminary Prioritization Major Projects
3. Cost Presentation
4. Funding Availability
5. Full Project Listing
6. Final Prioritization
7. Costs to Funding Assessment
8. Next Steps



AGENDA

Lee MPO Bicycle Pedestrian Master Plan Project Advisory Committee (PAC) Meeting #6

November 19th, 2010

1:00 – 3:00

1. Review of Preliminary Needs Plan
2. Comments



Lee MPO Bicycle Pedestrian Master Plan
Project Advisory Committee(PAC) Meeting #6
List of Attendees
Friday, November 19, 2010
1:00 PM

Please Print Clearly

Name	Address	Phone Number	E-mail Address
Steve Rodgers			
Darla Letourneau			
Dan Moser			
Margaret Banyan			
Don Scott			
Ron Gogoi			
Patrick Vanasse			

PAC #7

Agenda

Jan 26, 2011

2:00-4:00

1. Report Summary
2. Comments
3. Next Steps

Attachment 8

BikeWalkLee Survey Results



Survey analysis

This survey was conducted as part of BikeWalkLee's public outreach event at Lakes Park in Fort Myers on Nov. 8, 2009. A total of 176 participants responded to the survey.

What do you do the most? Driving led for almost 65% of the respondents, followed by biking and walking/running.

If you could change that, what would you like to do more? Biking came out on top for 62% of those responding, followed by walk/run and then driving.

Asked to pick their top three suggestions to improve transportation options in Lee County, respondents ranked their choices in the following order:

1. More bike/walk facilities
2. More mass transit choices
3. Better connections between existing bike/walk facilities
4. Better enforcement of existing laws
5. More consideration and planning for the needs of all users of Lee County streets.
6. More promotion of biking/walking/mass transit as an alternative to driving.
7. More laws protecting bikers, walkers and mass transit users.
8. Better coordination between governmental entities on bike/walk issues.

Do you feel safe? Participants were asked about their feeling of safety for biking, walking and taking mass transit. The intent of this question was to identify the overall feeling of safety in Lee County locations versus safety in specific locations.

Biking: 48% of respondents said they felt "safe" or "very safe," while 51.2% said they did not feel safe or would not bike.

Walking: 68% said they felt "very safe" or "safe," while 32% said they did not feel safe or won't do it.

Mass transit: 51% said they felt "very safe" or "safe," while 39% said they did not feel safe or they wouldn't use it.

Asked to rank why they like to bike or walk, the answers were:

1. Good for my health

2. Good method of transportation
3. Good for the environment
4. Good for my budget
5. Good for the community

When asked if they would support additional public investment in bike/walk/transit facilities in the county, almost everyone said yes. However, participants were nearly evenly split between whether spending was "desperately needed" and "be selective how it is spent." Participants were then asked how much more they would pay annually in taxes to support more biking/walking/transit facilities: Almost a third said \$50 or more — the highest figure offered — while 20.7% said "\$10-\$20" and 16.7% said "\$1-\$10." This indicates that the majority of respondents would be in support of additional facilities, and that many are willing to pay for those facilities if necessary.

When asked what was the best place for biking or walking in Lee County, the most common responses were: Lakes Park, Sanibel, the linear park along the Ten Mile Canal, and some of the quieter roads east of town.

When asked what was the worst place for biking or walking, the list was a little more diverse...but U.S. 41 and the Sanibel tollbooth were frequently mentioned. Some cast a wider net, saying that all of the county's or the city's streets were unsafe; others singled out downtown or Palm Beach Boulevard (no room), area bridges (too much litter and glass) or Alico and Corkscrew Roads (too many dump trucks).

What was the most important thing that needs to be done in the next year? Most often mentioned:

- Extend the Summerlin Road path from McGregor Blvd. through the toll booths.
- Connect existing bike paths.
- Build more bike/walk facilities.
- Improve public education on how bikers/walkers and drivers can share the road (and elsewhere) more safely.
- Ensure new roadways have adequate bike/walk infrastructure from design forward.

BikeWalkLee is a community coalition raising public awareness and advocating for complete streets in Lee County—streets that are designed, built, operated and maintained for safe and convenient travel for all users: pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. Information, reports, statistics and background available online at www.BikeWalkLee.org

BikeWalkLee would like to thank the Center for Public and Social Policy at Florida Gulf Coast University for providing data entry support.

FINE PRINT: This survey has several limitations. First, participants were asked to participate as they biked, walked, or otherwise enjoyed the amenities at Lakes Park. One might conclude that this group has a favorable predisposition to support biking and walking; but not necessarily transit. In addition, the survey was delivered to participants in the form of a paper copy, which often introduces error. For example, respondents did not consistently follow the question instructions, particularly those questions that required ranking. Regardless, the survey provides important feedback regarding how this group, who is inclined to support biking and walking, feels about the biking, walking, and transit environment, priorities, funding and improvements needed in Lee County.

Attachment 9

BikeWalkLee Report—How safe are Lee County streets for pedestrians?



“Dangerous By Design?”

How safe are Lee County streets for pedestrians?

BikeWalkLee's report on pedestrian safety in Lee County, issued in conjunction with “Dangerous by Design: Solving the epidemic of preventable pedestrian deaths (and making great neighborhoods),” by STTP and Transportation for America, November 9, 2009



November 9, 2009





Nov. 9, 2009

How safe are Lee County Streets for pedestrians?

A Look at Lee County in the national context of “Dangerous by Design” report

In 2007-2008, 1,047 pedestrians were killed on Florida roads, making Florida the most dangerous state for pedestrians—three times more dangerous than the national average. Unfortunately, Lee County is even more dangerous than the statewide average.

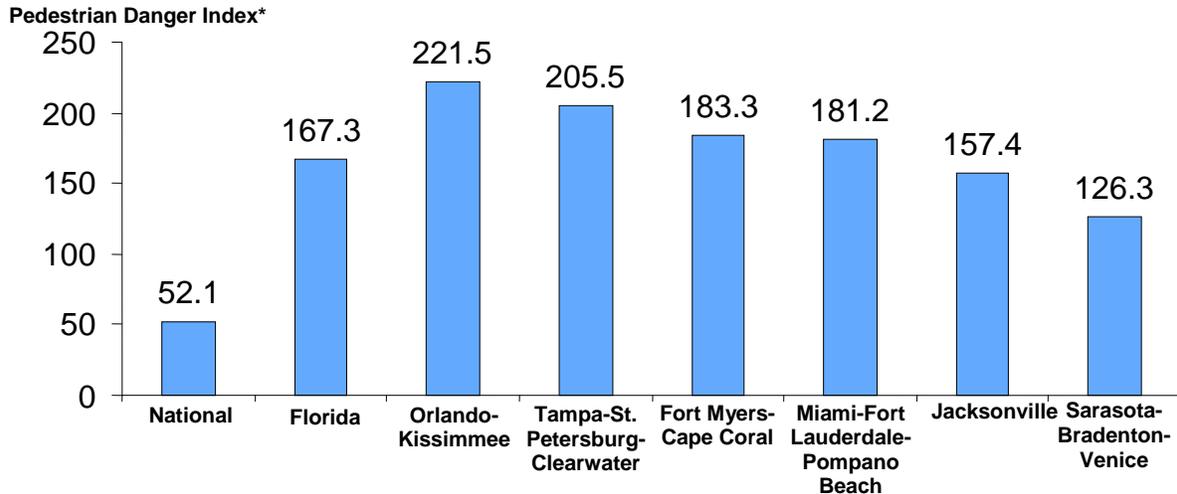
BikeWalkLee has analyzed Lee County in the national context, using the national report, "Dangerous by Design" report, its database, and methodologies. According to the national report, only eight other states have any metro areas with a danger index as high as Florida's average. Of the most populous states, California and New York have no metro areas that are as dangerous as Florida's average.

The Cape Coral-Fort Myers metro area, which includes all of Lee County, has a higher Pedestrian Danger Index (PDI) than Florida statewide. In fact, Lee County is more dangerous than all the metro areas in 42 other states, including the most populous states (and D.C.). Lee County ranks 23rd out of the 360 metro areas in the nation when it comes to being hazardous for walkers. Over the past two years, 32 Lee County residents have died and another 422 were injured while crossing the street, walking to school, going to a bus stop, or strolling to the grocery store. *

The national report highlights the rankings of the 52 major metro areas (over 1 million residents). Of the top 10 most dangerous large metro areas, four are in Florida — and Lee County's PDI is higher than every metro area on this list except Orlando-Kissimmee, FL, and Tampa-St. Petersburg-Clearwater, FL. (See Table 1, p. 18 of “Dangerous by Design”.)

**Source of injury data is Florida Highway Safety & Motor Vehicles “Traffic Crash Statistics Report 2008.” Source of fatality data is from “Dangerous by Design,” which uses Fatality Analysis Reporting System (FARS). Unless otherwise noted, the source of data for this analysis comes from “Dangerous by Design.”*

The risk of walking in selected Florida metro areas



*The pedestrian danger index is a measure of the relative risk of walking, adjusted for exposure. It is calculated by dividing the average pedestrian fatality rate (2007-2008), by the percentage of residents walking to work (2000).

How Lee County stacks up against other metro areas its size

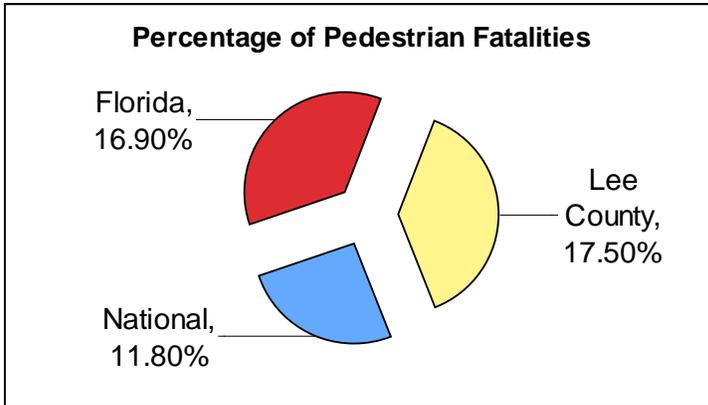
Looking at metro areas with populations similar to Lee County's size (400,000-700,000 residents), only three other metro areas in the nation are more dangerous for pedestrians than Lee County, and two of those three are in Florida:

Only three comparable-sized metro areas in the nation are more dangerous than Lee County

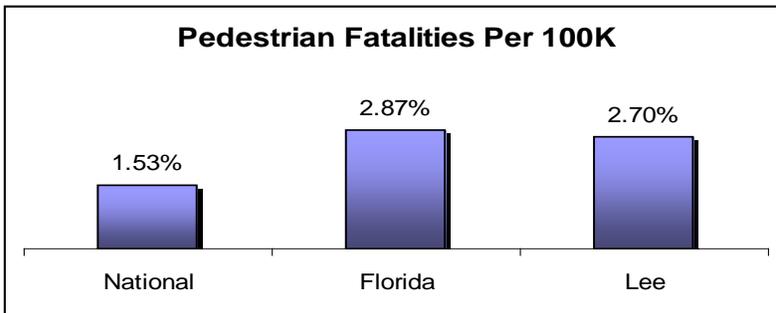
Metro Area	State	Population	PDI
Mobile, AL	AL	406,309	305.7
Lakeland-Winter Park	FL	508,594	220.7
Palm Bay - Melbourne - Titusville, FL	FL	536,521	201.8
Cape Coral- Fort Myers, FL	FL	593,136	183.3

The report looks at various ways to measure the dangers for pedestrians in metro areas, and by each measure, Lee County fares poorly:

Percent of all traffic deaths that were pedestrians 2007-2008

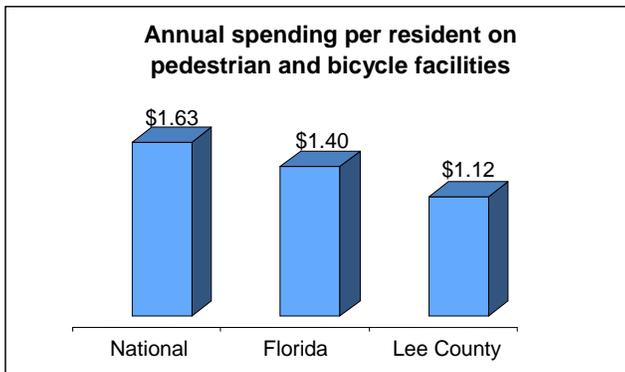


Pedestrian fatalities per 100,000 people (2007-2008)



Lee County spends only \$1.12 per resident annually in federal dollars on pedestrian (and bicycle) facilities and safety — less per resident than either the national or Florida average.

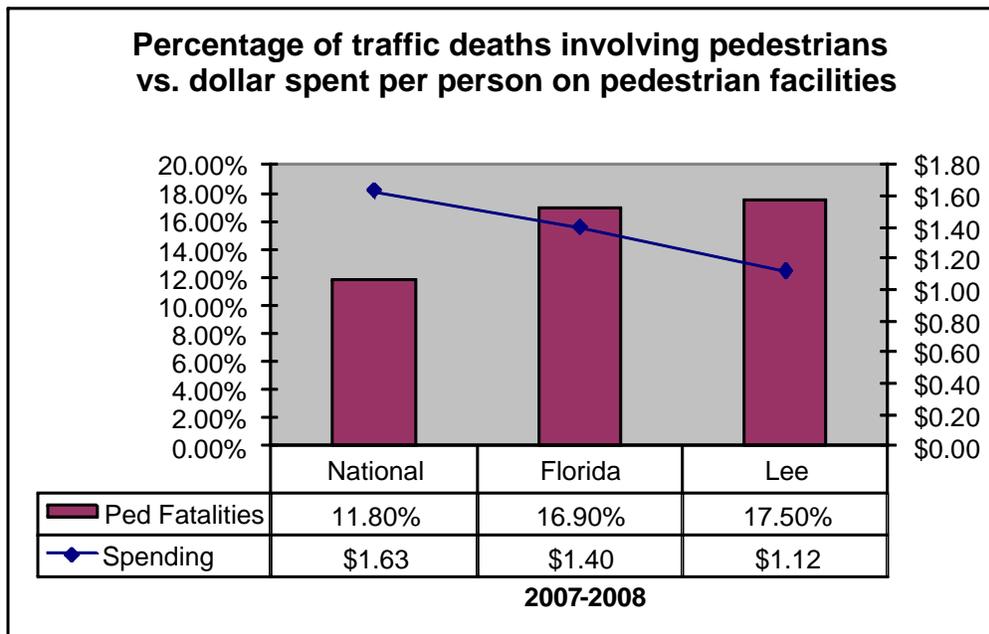
Lee's safety investments are lacking



At the national level and in Florida, approximately 1.5% of the federal transportation funds are allocated to projects to improve the safety of walking and bicycling, even though pedestrians and bicyclists comprise 13.6% (11.8% pedestrians/ 1.8% bicyclists) of all traffic deaths nationally, and 21.7% in Florida (16.9% pedestrians/ 4.8% bicyclists). * That works out to be \$1.63 per person nationally and just \$1.41 per person in Florida.

In Lee County, the disconnect is even worse. While 23% (17.5% pedestrians/ 5.5% bicyclists)* of all traffic fatalities in Lee County were pedestrians and cyclists in 2007-2008, the per-person expenditure on pedestrian and bicycling facilities and safety was only \$1.12. So, while Lee County’s share of all traffic deaths that were pedestrians and bicyclists was almost 70% higher than the national average, Lee’s spending to address these safety problems was 32% lower than the national average.

As the national report indicates, there is a relationship between the danger level for pedestrians and the dollars spent per person on pedestrian safety. Investments to make our streets safer for walkers and cyclists matter. If one of our national goals is to reduce traffic fatalities, it is logical to assume the investments to reach that goal would be made in some direct relationship to who is getting killed on our roads. Currently, the focus is almost exclusively on making the roads safer for drivers, not the non-motorists sharing the roadways that this study shows are disproportionately at risk of being killed.



**Source: National Highway Traffic Safety Administration 2007-2008 data.*

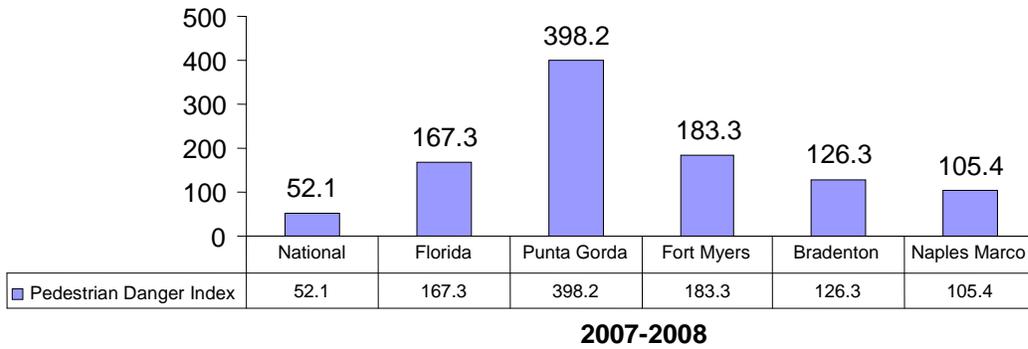
A look at Lee County in the context of Southwest Florida

Lee County leads the other three metro areas in Southwest Florida on the percent of all traffic deaths that are pedestrians, at 17.5%. However, on all other measures, Punta Gorda is more dangerous for pedestrians, with the highest PDI in the nation. Sarasota-Bradenton has the lowest average spending per person in Southwest Florida on pedestrian facilities and safety. Naples-Marco is the safest metro area for pedestrians in Southwest Florida, with a PDI of 105.4; however, it is still double the national average of 52.1.

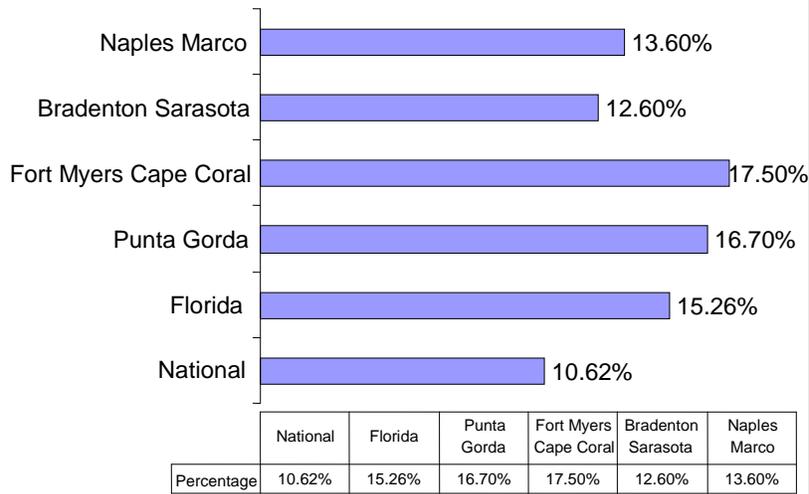
Southwest Florida Metro Areas							
<u>Metro area</u>	<u>PDI</u>	<u>Pedestrian fatalities</u>	<u>% of pedestrian fatalities per 100K*</u>	<u>% of total traffic deaths that were peds</u>	<u>Average spending per person</u>	<u>% walk to work (2000)</u>	<u>2008 population</u>
National	52.1	11623	1.53%	10.62%	\$1.63	2.86%	381,471,417
Florida	167.3	1047	2.87%	15.26%	\$1.41	1.64%	16,988,611
Punta Gorda	398.2	9	3.00%	16.70%	\$0.53	0.70%	150,060
Fort Myers /Cape Coral	183.3	32	2.70%	17.50%	\$1.12	1.50%	593,136
Bradenton /Sarasota	126.3	27	1.96%	12.60%	\$0.00	1.60%	687,823
Naples/Marco	105.4	12	1.90%	13.60%	\$2.87	1.80%	315,258

**Calculated using 2008 population number and number pedestrian fatalities data on this table.*

Southwest Florida metro areas Pedestrian Danger Index



Southwest Florida metro areas percentage of traffic deaths that are pedestrians



Lee County is more dangerous for walkers than reported

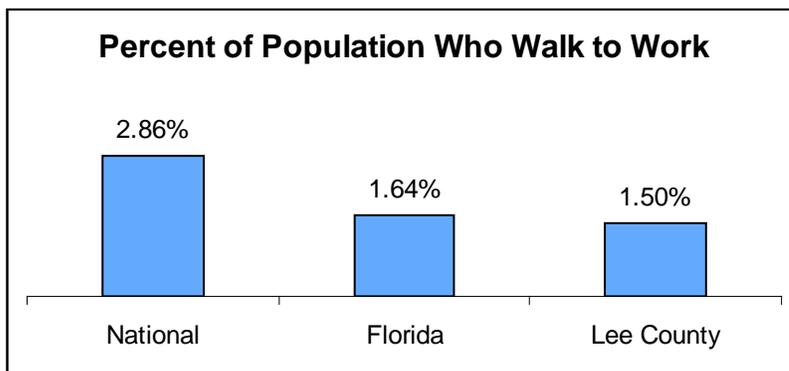
While the national report uses 2000 decennial Census data, it is important to look at the more recent American Community Survey (ACS) data for Lee County walking trends. While the national and Florida walking to work rates remained basically unchanged between 2000 and 2008, the percentage of Lee County workers walking to work has declined substantially from the 2000 level of 1.5%, and has been hovering between 1.0 and 0.8% since 2005, with the latest 2008 data at 0.8%.* (A similar decline was also seen in other Southwest Florida counties during the same period.)

Thus, Lee County's danger index (PDI) as reported in "Dangerous by Design" understates the danger for pedestrians in our community since it assumes that many more people are actually walking to work than we know is the case, given the 2008 ACS report.

Fewer residents walk in Lee County and other Florida metro areas

The PDI is a measure of pedestrian fatalities that reflects exposure to walking. Walking's share of all trips is more than three times larger than walking's share of commuter travel. According to "Dangerous by Design," 2.85% of Americans walk to work, while they take about 9% of all trips by foot. The decennial Census data on "modes of commuting to work" is the only data on walking that goes down to the metro-area level, so it has been used in this series of STTP "Mean Streets" reports since the 1990s as the measure for comparing relative walking in each metro area.

Using 2000 Census data, Lee County's walk to work rate is about half the national rate.



**Source: U.S. Census Bureau, 2008 American Community Survey, Lee County, FL*

Why the decline in walking in Lee County?

While Lee County has had lower walking rates than either Florida or the nation since the 1990 Census, the county's relative performance has declined more sharply.

Percent walking to work between 1990 and 2008*

	1990	2000	2008	% decline
	1990	2000	(ACS)	1990-2008
U.S.	3.9%	2.9%	2.8%	-28%
Florida	2.5%	1.7%	1.5%	-40%
Lee Co.	2.0%	1.5%	0.8%	-60%

The upcoming 2010 Census could show even further declines in the Lee County's walking-to-work rate. Using the national ratio of 1:3 between walking to work and all trips by foot, Lee County residents walk as their mode of transportation three times less than the national average. What this means is that the few people who do walk in Lee County face a relatively high risk of being killed by traffic.

Estimated percent of all trips made by foot in Lee County: 1990-2008

Lee County estimated				
% trips	1990	2000	2008 (ACS)	% decline 1990-2008
by foot	6.0%	4.5%	2.4%	-60%

Lee County's shrinking share of trips by foot may be attributed to the decline in safe, convenient and inviting places to walk, a lack of investment in safe pedestrian facilities, and to the increasing number of residents living in places where walking is more dangerous. Many Lee County residents live in sprawling suburban areas, characterized by wide arterial streets with fast-moving traffic, few sidewalks or crosswalks, and stores, shops and offices accessible only by car. While one might speculate that the recent drop in Lee County's rate reflects the economic downturn and high unemployment rate in Lee County, the county's walking to work rate was also 0.8% in 2005, during the boom years.

A recent survey of Florida residents found only 25% felt it was safe to walk along or to cross their nearest U.S. or state road. **

***Source:** 1990 and 2000 numbers from decennial Census; 2008 numbers from the Census American Community Survey (ACS).

****Source:** Center for Urban Transportation Research, 2005, prepared for Florida Department of Transportation.

Impacts for Lee County of the decline in walking

There are broader consequences for the Lee County community as a result of the decline in walking by our citizens.

- 1) Thirty percent of Americans do not drive, citing reasons of economics, age, disability and choice. For these people, being able to safely and easily walk, bike or take transit is essential. Many of the 30% non-driving citizens are elderly, and Lee County has a higher than average population over the age of 65 (22% vs. 17% national and Florida average)*
- 2) Half of all non-drivers age 65 and over stay home on a given day because they lack transportation.* This means that an increasing number of Lee County's senior citizens are experiencing a loss of their independence and quality of life.**
- 3) There are serious consequences for Lee County residents' weight and health as a result of the decline in walking. The federal Centers for Disease Control (CDC) reports that 66% of Americans are now overweight or obese. According to the Lee Memorial Health System, 64% of adults and 32% of children in Lee County are overweight or obese.† Walking and biking are critical to increasing levels of healthy exercise and reducing obesity and heart disease in our community.
- 4) Many of the trips that Lee County residents take by car rather than walking are trips that could easily be walked if roadways were safer. Nationally, one in 4 trips is 1 mile or less, yet most of these trips are made by car.
- 5) As the "Dangerous by Design" report points out, human-powered modes of transportation are an essential part of efforts to limit the negative impacts of traffic congestion, oil dependency and climate change. The Cape Coral-Fort Myers metro area's carbon footprint is among the highest of the 100 largest metro areas, with the largest source of coming from automobile use. Only five metro areas in the nation have worse per capita carbon emissions caused by automobiles than Lee County.††

Pedestrian injuries are also important measures of danger

"Dangerous by Design" focuses only on pedestrian fatalities; however, this is just the tip of the iceberg. For every pedestrian fatality, there are 13 pedestrians injured.

***Source:** U.S. Census Quick Facts, 2007.

****Source:** Surface Transportation Policy Partnership. "Aging Americans: Stranded without Options," 2004.

†**Source:** Lee Memorial Health System (LMHS)'s 2007 Community Health Assessment.

††**Source:** Brookings Institute Report, 2008 — "Shrinking the Carbon Footprint of Metropolitan America."

Lee County pedestrians: 2007-2008*

**32 fatalities vs. 422 injuries
= ratio: 1:13**

Lee County is dangerous for cyclists, too!

While this report deals with pedestrian safety, data shows that Lee County is also a very dangerous place for cyclists, with 5.5% of all traffic fatalities being cyclists in 2007-2008 — more than triple the national rate of 1.8%. Again, fatalities represent only a small portion of the problem. For every cyclist killed, 19 more are injured.

Lee County cyclists: 2007-2008*

**10 fatalities vs. 190 injuries
= ratio: 1:19**

The costs of pedestrian injuries and fatalities

As reported in “Dangerous by Design”, the National Safety Council estimates the comprehensive cost, including both the economic costs and the costs associated with the loss of quality of life, for each traffic death at \$4.1 million, and comprehensive cost for a single non-incapacitated injury is estimated at \$53,000.** Applying these per person costs to Lee County’s 2007-2008 pedestrian and bicyclist fatalities and injuries, these crashes are costing our community over \$100 million a year.

Cost to Lee County community of pedestrian and bicyclist fatalities and injuries (2007-08)

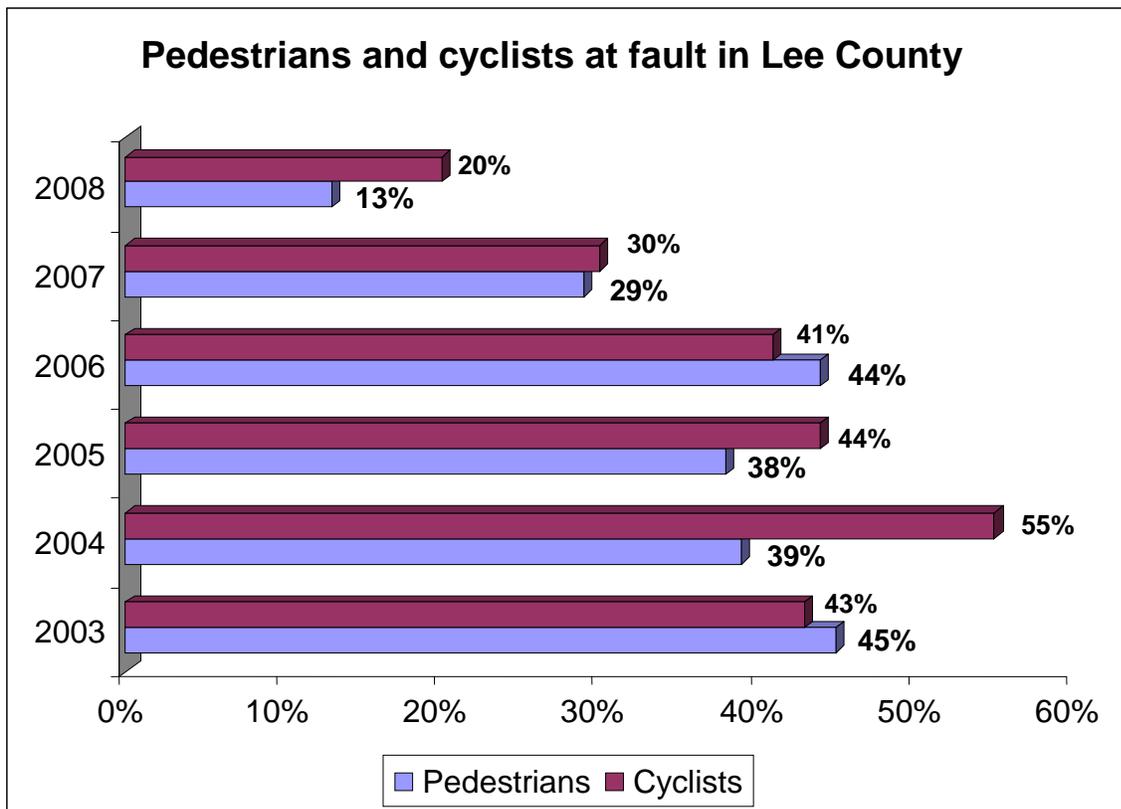
**Fatalities: 42 x \$4.1 million = \$172.2 million
Injuries: 612 x \$53,000 = \$32.4 million
Total cost: \$204.6 million**

Given these figures, it's reasonable to say that the money saved by preventing pedestrian and bicyclist injuries and fatalities would more than offset any costs of improving Lee County’s walking and biking infrastructure — which often can be done for a minimal cost if pedestrian and bicyclists needs are included as part of the initial planning rather than added on after the fact.

*Source: Injury data from FLHSV: Traffic Crash Statistics report 2008 and fatalities data from “Dangerous by Design” (FARS).

Who is at fault in pedestrian crashes?

In addition to the national and state official databases on fatalities and injuries, Lee County Department of Transportation (DOT) maintains crash data that provides some additional insights into where and why the crashes are occurring. The Lee DOT database records who is at fault (driver or walker/cyclist) in the crash. It's interesting to look at this data and the trends. The great majority of crashes with pedestrians and cyclists are the fault of the driver, with more drivers at fault in recent years than in the past.*



*Source of Lee County crash data: Lee County DOT, Traffic Section's Crash reporting system.

Although crash reporting systems attribute error on the part of motorist or pedestrian/cyclist, "Dangerous by Design" points out that an overwhelming proportion of these crashes share a similar factor: They occurred along roadways that were dangerous by design — streets that were engineered for speeding cars and made little or no provision for pedestrians or cyclists or people in wheelchairs.**

**Source: "Dangerous by Design," p. 45

What are the most dangerous Lee County roads and intersections for pedestrians?

Attached is a set of Lee DOT's crash maps (2005 to May 2009) with separate maps for pedestrians and cyclists. These maps provide a good indication of the "hot spot" areas in the county where the most crashes occur.

"Dangerous by Design" analyzed the national fatality data (NHSTA), showing that half of pedestrian deaths are on arterial roads. Although this data is not broken down to the local level, it is apparent from looking at these Lee County maps that many of Lee's crashes occur on arterial roads. Here's a look at three of the most dangerous ones:

- 1) Palm Beach Blvd (State Road 80) is well known as Lee County's most dangerous roadway for pedestrians. In the most urban area of State Road 80, from downtown Fort Myers out to just east of Interstate 75, many lives have been lost over the years since it was widened to include a unrestricted left-turn lane (a road design that's often dubbed a "suicide lane"). The middle lane has since been replaced with medians and pedestrian refuge areas, but its designation as an intra-state highway linking Florida's east and west coasts means speed limits will remain too high for how it functions in urban areas where businesses and housing areas dominate.
- 2) Cape Coral's primary north-south road, Del Prado Boulevard, has the distinction of routinely having the most crashes between motor vehicles and pedestrians (and sidewalk-using bicyclists) than any other road in Lee County. The reason? Most motorists fail to make legal stops from the many side streets, and instead encroach into the crosswalks. Fatalities rarely result from these collisions, but injuries are common. Although a wide curb lane exists on Del Prado, most motorists and cyclist have no idea that it's intended to be a shared-use lane, thereby sending most cyclists onto the sidewalk where they perceive it to be safer.
- 3) U.S. 41 has many personalities and many flaws. Although a side path exists along a majority of this major north-south route, it's designed first and foremost for the rapid movement of motor vehicles. On this highway that also serves as a major business corridor, pedestrians are often considered obstacles to efficient movement of cars and trucks since the activation of pedestrian signals throws the traffic signal timing out of synchronization. Much of U.S. 41 in North Fort Myers is without a side path, as is the case in the last stretch of four-lane highway in Estero, creating an even more risky situation for pedestrians in those areas.

What roadways are the safest for pedestrians, and why?

There are also areas in Lee County where measures have been taken to make them safer for pedestrians. Here are a two good examples and how these improvements happened:

- 1) Winkler Ave between U.S. 41 and Metro Parkway is probably Lee's only complete street. When it was widened more than a decade ago, the city of Fort Myers made the decision to do it right. Located next to the Edison Mall, it allows all users safe, efficient access to businesses and housing in what can also be considered a mixed-use neighborhood.
- 2) Lee County officials worked closely with the Captiva community after Hurricane Charley in 2004 to rebuild the roadway to accommodate cyclists and walkers by including a "safety shoulder" on the entire length of Captiva Drive, which was completed in 2008. This new shoulder has made it safer for all users — cyclists, walkers, drivers, wheelchair users, families and senior citizens — to travel from Sanibel to the tip of Captiva without being in a car. On any day, you can see many non-motorists using this facility, making Captiva a more walkable/bikeable community.

Some steps have been taken by Lee County to improve pedestrian safety

BikeWalkLee has been urging Lee County government agencies and elected officials to take action to make our roads and streets safer for pedestrians, cyclists, transit users, as well as motorists. Over the past year, our elected officials have begun to act.

- 1) The local Metropolitan Planning Organization (MPO — an intergovernmental traffic planning agency for Lee County) unanimously adopted Resolution 09-05 on Aug. 21, 2009, which requests Florida Department of Transportation and local agencies to accommodate all users in the design, construction, and operation of all roadway projects. Planning for the sidewalks and other safety features at the front-end of road design projects should begin to address the fact that many of our roads have been built without any accommodations for walkers (and cyclists and transit users).
- 2) The Lee MPO voted to devote a greater share of federal stimulus transportation project funds to pedestrian and bike projects. More than 10% of the stimulus transportation funds received to date is going to bike/pedestrian projects (including a shared-use path along the Metro Extension road project), and three more Cape Coral sidewalks will be funded with reallocated stimulus funds. Because so many roads were built without sidewalks, there is a huge backlog of these projects , some 36 of these projects are on the MPO stimulus priority list.
- 3) In addition, Lee County Commissioners approved other funding for new sidewalks this year: the Homestead Road sidewalk will be built as part of Lee County's \$3 million Energy Efficiency and Conservation Block Grant program. In addition, the county commission approved funding this year for the long-delayed Slater Road sidewalk.

- 4) On June 17, Lee County's Smart Growth Committee recommended a Complete Streets resolution to the county commissioners for approval. This is a policy statement that county roadways should be planned, designed and operated to provide safe access for all users. The commission accepted this resolution at its Aug. 3 Management and Planning meeting, and a vote on adoption of this resolution is scheduled for the Nov. 10 county commission meeting.
- 5) In September 2008, the MPO initiated a request for the development of a countywide comprehensive Bicycle and Pedestrian Master Plan, with the goal of providing a safe accessible and connected bicycle/pedestrian system throughout the county. The development of this plan is set to get underway next month. When completed, this plan will serve as a blueprint for improvements on the arterial and collector roads throughout the county, and ensure that connectivity and consistency is provided across the system countywide.
- 6) The MPO submitted a forward-thinking Transportation Investment Generating Economic Recovery (TIGER) grant application in September 2009 to the federal Department of Transportation as part of a national competition. The grant application proposes to upgrade the county's rail infrastructure, with planned long-term outcomes of improving accessibility and transportation services to non-motorists, improving connectivity and safety of the multimodal transportation system, and promoting more walkable and livable communities. If funded, this could be a centerpiece of a safer and more pedestrian-friendly Lee County.
- 7) The Lee County Health Department is currently developing a grant application (due Dec. 1), in collaboration with many community partners — from the health community, injury prevention, safety experts, Florida Gulf Coast University, the county Smart Growth Committee, BikeWalkLee, and other community partners — for the American Recovery and Reinvestment Act (ARRA) Prevention and Wellness Funding national grant competition. The Centers for Disease Control (CDC) is sponsoring this grant, which can focus on promoting healthy/livable communities. These grants will fund community-based prevention and wellness strategies that support measurable health outcomes to reduce chronic disease rate. Complete streets strategies and promoting policies that support walking and biking will be a part of the county's proposed strategy.

What more can be done in Lee County to reverse the trend of dangerous streets?

The most important next step is for Lee County commissioners to adopt the Complete Streets resolution on its Nov. 10, 2009, agenda. By setting a clear policy statement that all county road projects are to be designed to accommodate all users, and that walking, bicycling and transit accommodations are to be a routine part of every phase and component of county activities. The resolution provides a framework to guide the work of county agencies, with mechanisms for implementation, transparency and accountability.

Complete streets policies challenge the concept that the primary use of our public streets is to move more cars and trucks faster. Instead, it says our streets are the meeting spaces of our communities, for

all to use. These policies are a paradigm shift for transportation agencies that will require a broad assessment of the needs of all road users to achieve a balanced multi-modal transportation outcome.

Adopting complete streets policies is one of the key recommendations of the “Dangerous by Design” report, since complete streets are safer streets and save lives of pedestrians, cyclists and motorists, as well as to help promote healthy lifestyles. The national report provides numerous solutions for communities to consider in addressing the epidemic of pedestrian fatalities. These potential solutions are backed up by research and data that demonstrate their effectiveness in reducing crashes and fatalities, along with examples of communities that have effectively used these tools to reduce pedestrian deaths.

The following are specific actions BikeWalkLee urges Lee County officials and agencies to consider to make Lees streets safer for all users:

Ensure that Lee's streets take into account all users:

- 1) Support Lee County commission's Nov. 10 vote to adopt a "Complete Streets" resolution.
- 2) Encourage intergovernmental coordination in street design.
- 3) Promote community designs that emphasize alternative transportation options.
- 4) Incorporate Complete Streets principles into road designs and upgrades.

Fix problem areas:

- 1) Look at what caused pedestrian and bicyclist fatalities discussed here, and what could have been done to avoid them.
- 2) Look at what information we're lacking to make better safety decisions based on this analysis, and how could it be better gathered.
- 3) Look at funding options to make crucial bike and pedestrian roadway improvements.
- 4) Provide more transparency and accountability in regular reporting and analysis of indicator data and recommendations for action.

Focus on public education for all road-user groups:

- 1) **Pedestrians/bicyclists:** Learn how to walk/bike safer, how to walk/bike defensively in high-traffic areas and how existing laws affect your actions.
- 2) **Drivers:** Learn how to be more aware of pedestrians and their safety, and how to avoid unsafe distractions while driving.
- 3) **Officials:** Learn how to create a more walkable and bikeable community, and why that is important
- 4) **Media:** Take a role in educating the public, and shine a spotlight on problems and solutions.

Enhance enforcement of existing laws

- 1) Well-publicized strategic enforcement of existing laws on pedestrian and cyclist safety by the Lee County Sheriff's Office and local law enforcement agencies is often the best way to educate the public about the rules and to promote voluntary compliance.

Put safe walking and biking into a broader context

1. Encourage biking and walking as a transportation alternative as appropriate
2. Recognize the public health benefits of enhanced bike/walk facilities and use.
3. Encourage the Lee County School District to promote walking and biking to school.
4. Recognize the economic benefits of better bike/walk facilities for tourism, economic development and "smart growth" policies



What is BikeWalkLee?

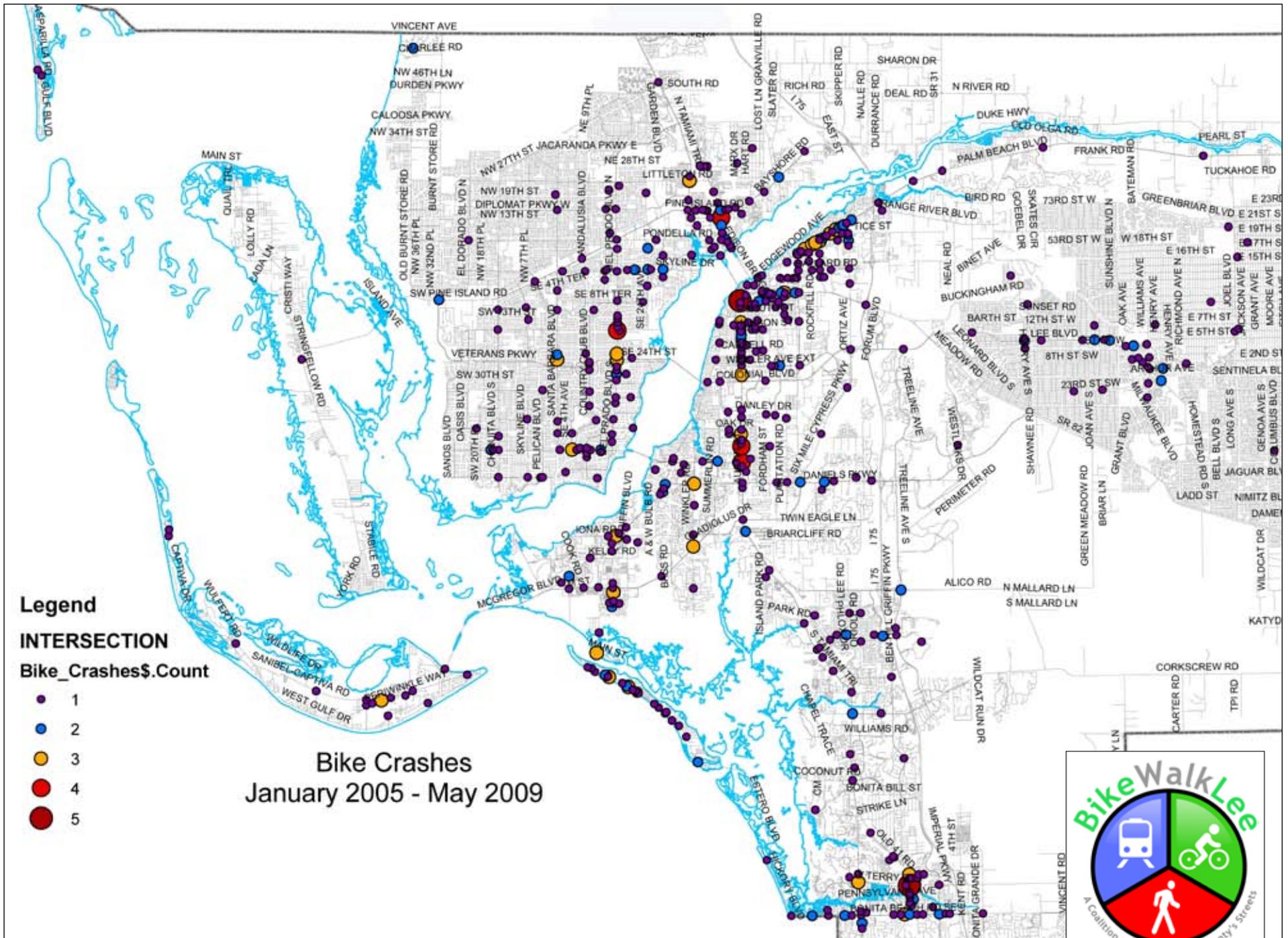
BikeWalkLee is a community coalition raising public awareness and advocating for complete streets in Lee County — streets that are designed, built, operated and maintained for safe and convenient travel for all users: pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.

We envision a Lee County that is a complete streets model community whose integrated and safe cycling and walking network inspires people of all ages, income groups, and fitness levels to cycle and walk for transportation and recreation. Public transportation is available and accessible to citizens and visitors in Lee County. Our active transportation focus contributes to the economic health of the community, the physical health of its residents, the environmental health of the region, and the quality of life for individuals and families in our community.

BikeWalkLee encourages other organizations and individuals to become part of this community coalition working to complete Lee County's streets and improve the livability of our community.

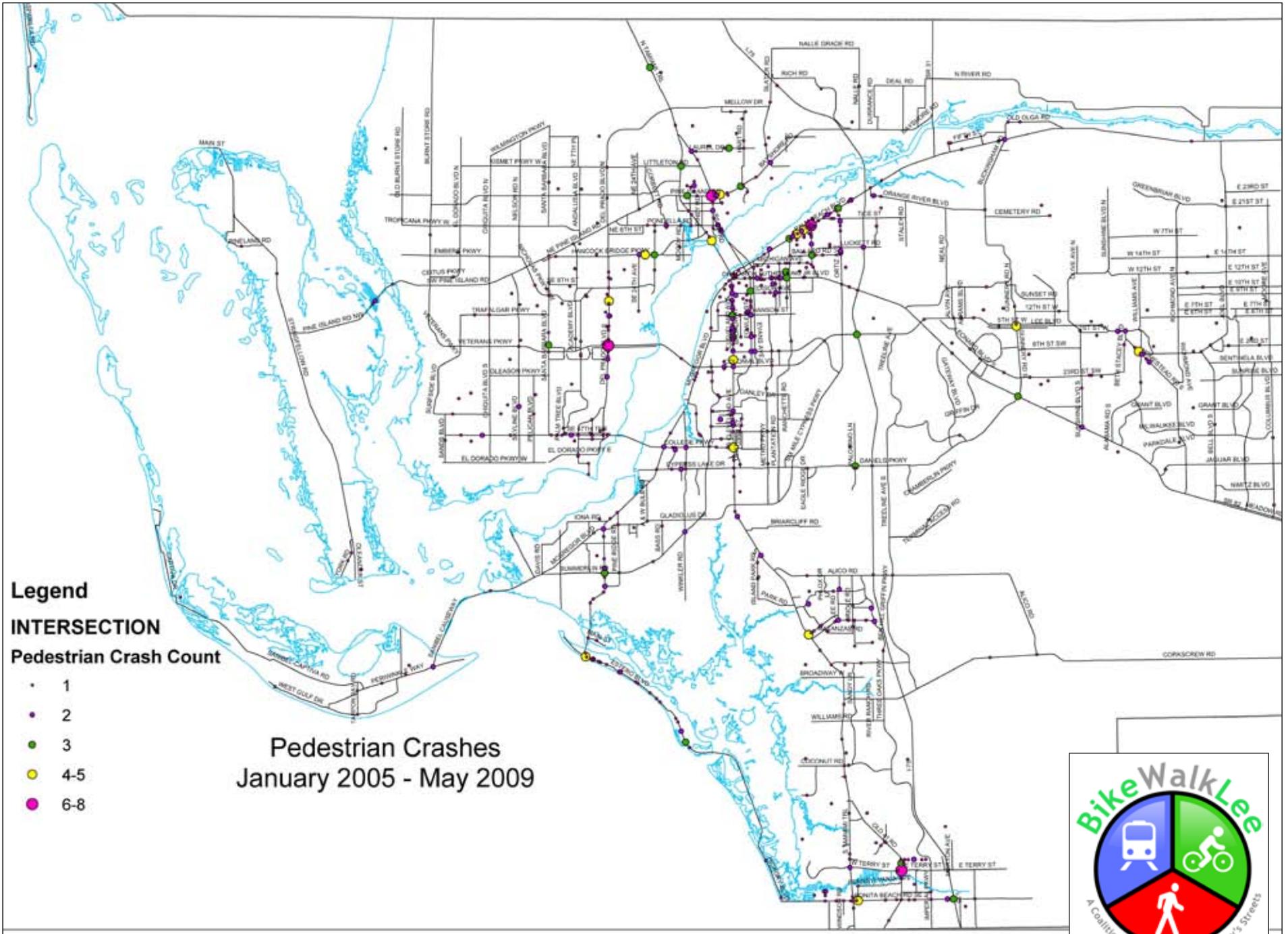
This BikeWalkLee report can be found on
www.BikeWalkLee.org and www.Eco-Voice.org.

The complete “Dangerous by Design” report can be found on
<http://t4america.org/resources/dangerousbydesign/>



SOURCE: Lee County Department of Transportation





SOURCE: Lee County Department of Transportation

