



# PALM BEACH Transportation Planning Agency

## TECHNICAL ADVISORY COMMITTEE (TAC) AGENDA

DATE: Wednesday, March 6, 2019  
TIME: 9:00 a.m.  
PLACE: Vista Center 4<sup>th</sup> Floor Conference Room 4E-12  
2300 North Jog Road  
West Palm Beach, FL 33411

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### 1. REGULAR ITEMS

- A. Roll Call
- B. MOTION TO ADOPT Agenda for March 6, 2019
- C. MOTION TO APPROVE Minutes for February 6, 2019
- D. Comments from the Chair
- E. TAC Liaison's Report
- F. General Public Comments and Public Comments on Agenda Items

Any members from the public wishing to speak at this meeting must complete a Comment Card available at the welcome table. General Public comments will be heard prior to the consideration of the first action item. Public comments on specific items on the Agenda will be heard following the presentation of the item to the Committee. Please limit comments to three minutes.

### 2. ACTION ITEMS

- A. MOTION TO RECOMMEND APPROVAL of Long Range Transportation Plan (LRTP) Goals and Objectives

TPA staff will present recommended updates to the LRTP Goals and Objectives for committee input. The proposed updates to the LRTP goals are consistent with the agency's mission to establish a safe, efficient, connected and multimodal transportation system. The underlying measurable objectives then support those goals and establish a means to track progress over time. Staff will also present the schedule for the remaining action items to culminate in the adoption of a major LRTP update in September 2019. The recommended LRTP Goals and Objectives as well as a project schedule are attached.

### 3. INFORMATION ITEMS

- A. Draft Vision Zero Action Plan

Federal regulations require the TPA to annually adopt safety targets for each of five safety performance measures. In February 2018 and again in February 2019, the TPA Governing Board adopted targets of zero traffic-related fatalities and serious injuries, and directed staff to create a Vision Zero Action Plan to progress toward these targets. TPA staff and consultants will present the attached Draft Vision Zero Action Plan.

B. Complete Streets Workshop Next Steps

TPA staff will provide an overview of the Smart Growth America TPA Complete Streets Workshop recommendations for next steps, which include encouraging local municipalities to adopt a Complete Streets Policy. The Complete Streets Workshop Recommendations Memo is attached. Additionally, the TPA has created a Model Complete Streets Policy to support adoption by a local government and posted it to [www.PalmBeachTPA.org/completestreets](http://www.PalmBeachTPA.org/completestreets)

C. Countywide Road Impact Fee Projects from 1993 to 2035

County staff will review the attached maps depicting:

- Road impact fee projects constructed from 1993 to 2017
- Road impact fee projects to be constructed from 2018 to 2022 (based on the County's adopted road program)
- Future road impact fee projects to be constructed from 2023 to 2035

County staff will also summarize the road impact fee modifications proposed for action at the April 16, 2019 County Commission meeting.

D. West Palm Beach Trolley Expansion

City of West Palm Beach staff will summarize their 1-year, 3-year and 5-year plans to expand trolley service. They will also review recommendations from the downtown parking study. There is no backup for this item.

4. ADMINISTRATIVE ITEMS

A. Member Comments

B. Summary Points from the February 21, 2019 Governing Board Meeting

C. Next Meeting - April 3, 2019

D. Adjournment

**NOTICE**

In accordance with Section 286.0105, *Florida Statutes*, if a person decides to appeal any decision made by the board, agency, or commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purposes, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. Persons who require special accommodations under the Americans with Disabilities Act or persons who require translation services for a meeting (free of charge), please call 561-684-4143 or send email to [MBooth@PalmBeachTPA.org](mailto:MBooth@PalmBeachTPA.org) at least five business days in advance. Hearing impaired individuals are requested to telephone the Florida Relay System at #711.



**MINUTES OF THE  
TECHNICAL ADVISORY COMMITTEE (TAC)  
Wednesday, February 6, 2019 9:00 a.m.**

Vista Center 4<sup>th</sup> Floor Conference Room 4E-12  
2300 North Jog Road  
West Palm Beach, Florida 33411

*PDF versions of the agenda, backup material and presentations as well as audio recordings are available for review at [www.PalmBeachTPA.org/TAC](http://www.PalmBeachTPA.org/TAC)*

**1. REGULAR ITEMS**

CHAIR BAILEY called the meeting to order at 9:02 a.m.

**1.A. Roll Call**

The Recording Secretary called the roll. A quorum was present as depicted in Exhibit A of these Minutes.

MR. ANDREW UHLIR, Palm Beach TPA Deputy Director of Program Development, introduced Mr. Michael Lynch as the TPA’s new Long Range Transportation Plan (LRTP) Coordinator.

MR. LYNCH briefly highlighted his credentials that include working at the Martin County MPO as well as in Abu Dhabi and Dubai.

**1.B. ADOPTED: Agenda for February 6, 2019**

**MOTION to adopt the Agenda. Motion by Dr. Kim DeLaney, seconded by Mr. Alex Hansen, and carried unanimously 13-0.**

Member	Vote	Member	Vote	Member	Vote	Member	Vote
Hicks (ALT)	Y	Cargill (ALT)	A	Hansen	Y	Perez (ALT)	Y
Al-Turk	Y	Morrow (ALT)	Y	Irwin-Ferris	A	Glas-Castro (ALT)	Y
Anderson (ALT)	Y	DeLaney	Y	Mack	A	Stillings	A
Bailey	Y	Lan (ALT)	Y	Mansour	Y	Tejera	Y
Baker	A	Eassa	A	Marsh	Y	Wilson	A
Brown	A	Dang (ALT)	A	O’Dell	A		

Y = Yes N = No A = Absent ABST = Abstain

**1.C. APPROVED: Minutes for December 5, 2018**

**MOTION to approve the Minutes. Motion by Mr. Alex Hansen, seconded by Mr. Jorge Perez, and carried unanimously 13-0.**

Member	Vote	Member	Vote	Member	Vote	Member	Vote
Hicks (ALT)	Y	Cargill (ALT)	A	Hansen	Y	Perez (ALT)	Y
Al-Turk	Y	Morrow (ALT)	Y	Irwin-Ferris	A	Glas-Castro (ALT)	Y
Anderson (ALT)	Y	DeLaney	Y	Mack	A	Stillings	A
Bailey	Y	Lan (ALT)	Y	Mansour	Y	Tejera	Y
Baker	A	Eassa	A	Marsh	Y	Wilson	A
Brown	A	Dang (ALT)	A	O’Dell	A		

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#### 1.D. Comments from the Chair

There were no comments received from the Chair.

MR. UHLIR introduced Mr. Jason Price as the TPA's new Transportation Improvement Program (TIP) Coordinator.

MR. PRICE briefly highlighted his credentials that include working at the Broward County MPO and Caltrans District 1 in Eureka, California.

#### 1.E. TAC Liaison's Report

MR. LYNCH reviewed the following from the Liaison's Report:

- The deadline for applications to the Local Initiatives (LI) and Transportation Alternatives (TA) programs is Friday, March 1 by 5:00 p.m. For more information, visit: [www.PalmBeachTPA.org/Funding](http://www.PalmBeachTPA.org/Funding)

Ms. Kara Irwin-Ferris joined the meeting at 9:07 a.m.

- The 2019 Safe Streets Summit will be held at the Downtown Miami Intercontinental Hotel on Monday, February 25 (conference) and Tuesday, February 26 (mobile workshops). The last day to register is February 15. For more information and to register, visit [www.SafeStreetsSummit.org](http://www.SafeStreetsSummit.org).
- The Florida Department of Transportation (FDOT) will be hosting a FREE community safety event at the West Palm Beach Waterfront, along Flagler Drive and Clematis Street, on February 9 from 9:00 a.m. to 1:00 p.m. Activities include a Children's Bike Rodeo hosted by FDOT, Roll-Over Vehicle Demonstrations hosted by Florida Highway Patrol (FHP), free bike helmets & fittings and safety tips for children & adults.
- FDOT is holding an informal open house on February 11 at the Delray Beach Public Library, 100 West Atlantic Avenue, Delray Beach, FL 33444 to discuss proposed improvements to US 1/State Road 5 between Eve Street and Harbourside Drive in Delray Beach, including resurfacing, upgraded lighting, highway signs, and pedestrian signals. No formal presentation will be made, design plans and project information will be on display, and staff will be available to discuss the project, answer questions and address individual concerns.
- TPA staff encourages members of the committee to recommend a new member to the BTPAC who can represent the disabled community and is aware of the challenges commonly faced by the mobility-impaired users of our transportation system.
- The next TPA Governing Board Meeting will be held on February 21 at 9:00 a.m. at the Wellington Community Center, 12150 Forest Hill Boulevard, Wellington, FL 33414.

#### 1.F. General Public Comments and Public Comments on Agenda Items

There were no general public comments received.

## 2. ACTION ITEMS

### 2.A. ELECTED: TAC Vice Chair

**MOTION to Elect Dr. Motasem Al-Turk as the 2019 Vice Chair. Motion by Mr. Jorge Perez and carried unanimously 14-0.**

Member	Vote	Member	Vote	Member	Vote	Member	Vote
Hicks (ALT)	Y	Cargill (ALT)	A	Hansen	Y	Perez (ALT)	Y
Al-Turk	Y	Morrow (ALT)	Y	Irwin-Ferris	Y	Glas-Castro (ALT)	Y
Anderson (ALT)	Y	DeLaney	Y	Mack	A	Stillings	A
Bailey	Y	Lan (ALT)	Y	Mansour	Y	Tejera	Y
Baker	A	Eassa	A	Marsh	Y	Wilson	A
Brown	A	Dang (ALT)	A	O'Dell	A		

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Mr. Jamie Brown joined the meeting at 9:15 a.m.

### 2.B. RECOMMENDED ADOPTION: 2019 Safety Targets

MR. UHLIR noted the Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) requires state DOTs and MPOs to monitor required performance measures, establish targets and report progress annually. He stated the TPA adopted targets for zero fatalities and serious injuries for 2018 and noted that the Vision Zero Action Plan is on pace to be ready for March/April adoption. He reviewed the required Safety Performance Measures and number of fatalities, rates of fatalities per 100 million vehicle miles traveled (VMT), number of serious injuries, rate of serious injuries per 100 million VMT, and number of non-motorized fatalities and serious injuries. He highlighted annual and 5-year average data from 2010-2018.

DR. CHANG-JEN LAN suggested reviewing data at the cross sections to compare the different counties, especially the larger ones, to Palm Beach County.

MR. UHLIR stated in the future presentation to the Governing Board he would include the comparison to similarly sized counties and MPOs in the area. He noted the backup material in the agenda packet include this information.

A discussion ensued on the recommended adoption of Vision Zero for 2019 and the potential of reaching that goal.

VICE CHAIR AL-TURK noted the County is leading a Local Road Safety Program study that was funded by the federal government. It is being finalized with the project's approach to be proactive versus reactive.

CHAIR BAILEY requested Vice Chair Al-Turk to work with TPA staff to schedule a presentation on the Local Road Safety Program in April.

Mr. Khurshid Mohyuddin, Palm Beach County Planning, noted when he attends the TPA Governing Board meetings the members are always perplexed of Vision Zero. He suggested having intermediate steps to measure the progress towards Vision Zero.

Further discussion ensued on setting realistic goals and measures towards achieving zero injuries and fatalities versus just a goal of Vision Zero.

MR. UHLIR noted a Vision Zero Action Plan with strategies will be presented to the Vision Zero stakeholder committee and then the advisory committees in March. He stated TPA staff requests the committee to review the document in detail to analyze and critique the recommended measures and actions.

Discussion ensued on the necessity to adopt Vision Zero annually and if the item could be postponed to allow the committee to review the Action Plan and strategies first.

MR. NICK UHREN, Palm Beach TPA Executive Director, clarified that a federal mandate requires the TPA to annually adopt safety targets for each performance measure. He noted that once the state adopts their safety targets, the MPOs have six months from that date to adopt corresponding targets.

**MOTION to Recommend Adoption of the 2019 Safety Targets. Motion by Mr. Christopher Marsh, seconded by Mr. Steve Anderson, and carried unanimously 15-0.**

Member	Vote	Member	Vote	Member	Vote	Member	Vote
Hicks (ALT)	Y	Cargill (ALT)	A	Hansen	Y	Perez (ALT)	Y
Al-Turk	Y	Morrow (ALT)	Y	Irwin-Ferris	Y	Glas-Castro (ALT)	Y
Anderson (ALT)	Y	DeLaney	Y	Mack	A	Stillings	A
Bailey	Y	Lan (ALT)	Y	Mansour	Y	Tejera	Y
Baker	A	Eassa	A	Marsh	Y	Wilson	A
Brown	Y	Dang (ALT)	A	O'Dell	A		

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## 2.C. **RECOMMENDED ADOPTION:** Priority Projects List Amendment #1

MR. STEVE ANDERSON, Palm Tran Interim Transit Planning Manager, stated Palm Tran is requesting deletion of \$2.5M LI funding for Transit Signal Priority (TSP) on Routes 43 and 62 (FM 4317621 & FM 4317631) and to use those funds for their Fare Technology Interoperability (FTI) (FM 4317611) project instead. He noted the TSP project has not moved forward due to lack of staff and expertise. He provided a brief background of the FTI project, which is a Palm Tran priority project for implementation in 2019-2020, and noted the total cost, timeline and projected expenditures. He stated TSP is still in Palm Tran's future and there is a pending GPC contract to evaluate the best way forward.

MR. ALEX HANSEN noted his concerns that TSP is dropping off the TPA's priority list and may not be as visible as a priority as it was before. He noted that the next agenda item also allocates \$1.5M to the FTI project and inquired if it was more than what Palm Tran needed. He inquired if the funds could be shared between the TSP and FTI projects.

MS. VALERIE NEILSON, Palm Beach TPA Deputy Director of Multimodal Development, noted that the total project cost is \$6M with \$2.2M being taken from Palm Tran's Section 5307 Federal Transit Administration (FTA) funds, which is normally used for annual maintenance and other costs. She noted the next agenda item would help Palm Tran with the one-time costs and avoid them going into their 5307 funds.

A discussion ensued on the TSP project status and need for it on the priority list.

**MOTION to Recommend Adoption of Priority Projects List Amendment #1. Motion by Dr. Motasem Al-Turk and seconded by Mr. Christopher Marsh.**

MR. JORGE PEREZ inquired the process to get Broward's participation on the FTI project, how this project would increase ridership, and where the smart cards will be sold.

MS. NEILSON stated all transit agencies are working on this project so it will be user friendly. Palm Tran is working with the same vendor as SFRTA and Miami-Dade, and Broward is working with a different vendor.

Further discussion ensued on the future study for bus rapid transit along Okeechobee Boulevard and the need for TSP.

The motion was called to vote and carried 14-1.

Member	Vote	Member	Vote	Member	Vote	Member	Vote
Hicks (ALT)	Y	Cargill (ALT)	A	Hansen	N	Perez (ALT)	Y
Al-Turk	Y	Morrow (ALT)	Y	Irwin-Ferris	Y	Glas-Castro (ALT)	Y
Anderson (ALT)	Y	DeLaney	Y	Mack	A	Stillings	A
Bailey	Y	Lan (ALT)	Y	Mansour	Y	Tejera	Y
Baker	A	Eassa	A	Marsh	Y	Wilson	A
Brown	Y	Dang (ALT)	A	O'Dell	A		

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**2.D. RECOMMENDED ADOPTION:** Transportation Improvement Program (TIP) Amendment #4

MS. NEILSON stated the City of Boca Raton has formally withdrawn its request for FY19 \$1,505,000 in LI funds for new trolley service (FM 4383991). She said the City cannot commit to operating service at this time and are unable to consume the funds as proposed. She noted the FTI Project (FM 4317611) is the next transit project on the TPA's Local Initiatives priority project list that needs additional funding. This would give a total of \$5.325M in TPA funding for the project with the remaining \$675,000 coming from Palm Tran's 5307 funds.

MR. ANDERSON inquired why the City of Boca Raton passed on the project.

MS. MARIA TEJERA stated she provided a presentation to City Council in January and they decided at the time they didn't have the funds to operate the trolley service.

**MOTION to Recommend Adoption of TIP Amendment #4. Motion by Ms. Maria Tejera, seconded by Mr. Steve Anderson.**

MR. CHRISTOPHER MARSH inquired if the money could be divided amongst the active LAP projects, making more funding available for other projects.

MR. UHLIR stated it's easier to amend the request from the trolley service to Palm Tran because this project is in FY19 and transit projects can be flexed. He noted if they funds are not flexed the TPA cannot guarantee the funds will be redistributed to local area projects.

CHAIR BAILEY recalled a prior year vote on trolley project funding that the TAC could not come to consensus on due to the projects being deemed unready, resulting in all projects advancing. He noted the funding program has since been revamped and there is a better vetting process.

The motion was called to vote and carried unanimously 15-0.

Member	Vote	Member	Vote	Member	Vote	Member	Vote
Hicks (ALT)	Y	Cargill (ALT)	A	Hansen	Y	Perez (ALT)	Y
Al-Turk	Y	Morrow (ALT)	Y	Irwin-Ferris	Y	Glas-Castro (ALT)	Y
Anderson (ALT)	Y	DeLaney	Y	Mack	A	Stillings	A
Bailey	Y	Lan (ALT)	Y	Mansour	Y	Tejera	Y
Baker	A	Eassa	A	Marsh	Y	Wilson	A
Brown	Y	Dang (ALT)	A	O'Dell	A		

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Dr. Motasem Al-Turk left the meeting at 10:02 a.m.

**2.E. RECOMMENDED ADOPTION:** Unified Planning Work Program (UPWP) Amendment #2

MR. UHREN stated the UPWP is the TPA’s business plan and application for federal grant funds with about 95% of the agency’s funding coming from FTA or Federal Highway Administration (FHWA) planning grants. The currently adopted UPWP runs from July 1, 2018 to June 30, 2020. He stated Amendment #1 requesting to increase FY19 total planning funds by about \$900K to support the TPA office buildout, decrease the FY20 total planning funds by about \$100K to reflect lower rent payments, redistribute FHWA and FTA funding to maximize utilization of planning funds, and add \$600K FHWA Surface Transportation funds in FY20 was adopted by the Governing Board on October 18, 2018 and was rejected by FDOT on October 25, 2018. He noted although there are FHWA planning funds available, FDOT is the pass through agency and their adopted state budget has a cap on the number of dollars that can be given to MPOs in Florida for different planning activities in a current fiscal year. FDOT accommodates all initial budgets and have a cushion for amendments that may come up during the fiscal year, which they have since utilized for FY19.

MR. UHREN stated Amendment #2 is requesting in FY19 to decrease FTA planning funds by \$287K to reflect actual funding available; decrease agency expenses with local funds by \$35K to reflect County payment of FTA match funds instead of member dues; and realign expenses to refine staff and consultant costs, and add half of the cost for the office buildout. In FY20 the TPA is requesting an increase in FHWA planning funds by \$1.267M; and increase expenses to add half of the cost for the office buildout, new staff positions and consultant funding.

MR. HANSEN inquired which fiscal year the TPA follows and the plan for the physical move if everything requested proceeds without issue.

MR. UHREN clarified the TPA follows the State and County fiscal year of September to October and the federal fiscal year of June to July. He noted the TPA has submitted a permit on Friday, February 1 with the City of West Palm Beach for a buildout of 301 Datura Street. He stated there is a 60-90 day review period, and if the TPA is able to commence construction in May there is a 3-4 month timeframe for buildout and move-in is projected for August or September.

MR. PEREZ suggested including the slides from the PowerPoint presentation in the agenda packet for the Governing Board as it was more informative than what was included in the TAC agenda packet.

MR. ANDERSON inquired what is being affected by the decrease in planning funds.

MR. UHREN stated the TPA has completed some preliminary work on the Okeechobee Boulevard multimodal corridor study and further work has been put on hold for now.

**MOTION to Recommend Adoption of UPWP Amendment #2. Motion by Dr. Kim DeLaney, seconded by Ms. Maria Tejera, and carried unanimously 14-0.**

Member	Vote	Member	Vote	Member	Vote	Member	Vote
Hicks (ALT)	Y	Cargill (ALT)	A	Hansen	Y	Perez (ALT)	Y
Al-Turk	A	Morrow (ALT)	Y	Irwin-Ferris	Y	Glas-Castro (ALT)	Y
Anderson (ALT)	Y	DeLaney	Y	Mack	A	Stillings	A
Bailey	Y	Lan (ALT)	Y	Mansour	Y	Tejera	Y
Baker	A	Eassa	A	Marsh	Y	Wilson	A
Brown	Y	Dang (ALT)	A	O’Dell	A		

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### 3. INFORMATION ITEMS

#### 3.A. DISCUSSED: AARP Livable Communities

MR. KEN REINHARDT, AARP Florida Executive Council, provided a PowerPoint presentation and highlighted a few key aspects that people of all ages can expect in a livable community. He provided a comparison of population projections by age with data from 2010 to 2040 for the United States, Florida and Palm Beach County. He discussed livability as it relates to housing, transportation and engagement. He reviewed the phases of AARP/ World Health Organization's (WHO) Network of Age-Friendly Communities. He briefly highlighted the cities that are in the AARP Age-Friendly Network and provided a demonstration of AARP's Livability Index tool that can be accessed at <http://livabilityindex.aarp.org/>.

A brief discussion ensued on the Livability Index tool with members noting they could provide AARP with data to update the accuracy of this tool.

#### 3.B. DISCUSSED: Florida Bicycle Month

MR. NICHOLAS HERNANDEZ, Palm Beach TPA Pedestrian and Bicycle Coordinator, provided a PowerPoint presentation and noted March is Florida Bicycle Month. He highlighted the Palm Beach TPA's Bike to Work Day ride on March 15 starting at 7:30 a.m. at the Mangonia Park Tri-Rail Station and ending at 8:15 a.m. at West Palm Beach City Hall. He highlighted the 2018 events and encouraged municipalities to add their own Bicycle Month events to the [www.BikePalmBeach.org](http://www.BikePalmBeach.org) calendar. He noted in 2018 there were six Bicycle Month Proclamations in Palm Beach County and encouraged more municipalities to do a Florida Bicycle Month proclamation this year. He stated a template was provided in the agenda packet if any municipality needed one and requested a copy of the adopted proclamation be provided to the TPA for their records

MR. MARSH noted the Village of Royal Palm Beach adopted a proclamation last year and plans to do it again this year.

Mr. Xavier Falconi, Marlin Engineering, inquired if the TPA encourages private sectors to become involved as well.

MR. HERNANDEZ noted everyone is encouraged to attend the Bike to Work Day ride and provide events on the Bike Palm Beach calendar.

#### 3.C. DISCUSSED: Congestion Management Process (CMP) Report Card

MR. UHLIR provided a PowerPoint presentation on the 2018 CMP Report Card that was included in the agenda packet. He noted once all measures are finalized an updated version will be posted to the TPA website at [www.PalmBeachTPA.org/CMP](http://www.PalmBeachTPA.org/CMP). He noted the CMP originated as a federal requirement to monitor congestion and the TPA has shifted it towards multimodal goals and objectives, which will be revamped in the upcoming 2045 LRTP update. He reviewed data for the Vehicular Transportation, Mass Transit, Non-Motorized, Freight, and Social and Environmental goals as shown in the Report Card.

A discussion ensued on each goal's updates, bicycle facilities, updates to the LRTP, and transit.

MR. ANDERSON requested deletion of the Route Performance Maximization (RPM) implementation in October 2018 note on the Mass Transit goal as the Board of County Commissioners voted for coverage versus an increase in ridership.

CHAIR BAILEY requested this information be included in the LRTP update that comes before the committee.

**3.D. DISCUSSED: Correspondence**

1. TPA Resolution 2018-18: Acknowledging the cooperative process to develop the Draft FY 20-24 Work Program; Endorsing the Draft Program with requested modifications to advance TPA Major Projects.
2. Response letter from FDOT Secretary O'Reilly.

MR. UHREN noted the TAC recommended items outlined in the provided Resolution, which the TPA wanted to provide for the TAC's review along with FDOT Secretary O'Reilly's response.

Dr. Kim DeLaney left the meeting at 11:06 a.m.

**3.E. Summary Points from the December 13, 2018 Governing Board Meeting**

There was no discussion on this item.

**4. ADMINISTRATIVE ITEMS****4.A. Member Comments**

CHAIR BAILEY noted that any members of the public that wished to speak on agenda items could turn in one public comment card at the beginning of the meeting, and he would denote which items they request to speak on throughout the meeting.

**4.B. Next Meeting - March 6, 2019****4.C. Adjournment**

There being no further business the meeting was adjourned at 11:08 a.m.

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This signature is to attest that the undersigned is the Chair, or a designated nominee, of the Technical Advisory Committee and that information provided herein is the true and correct Minutes for the February meeting of the Technical Advisory Committee, dated this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

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Chair

**EXHIBIT A**  
 Technical Advisory Committee  
 Attendance Record 2018-2019

REPRESENTATIVE/Alternate Agency Name	Mar '18	Apr '18	May '18	Jun '18	Jul '18	Aug '18	Sep '18	Oct '18	Nov '18	Dec '18	Jan '19	Feb '19	
JERRY ALLEN/Wil Hicks PBC Airports Department - Planning	Alt	MEETING CANCELLED	Alt	Alt	MEETING CANCELLED		Alt	Alt		E		Alt	
**MOTASEM AL-TURK/Melissa Ackert PBC Engineering Department	P		P	P			P	P		P		P	
*TERRENCE BAILEY City of Riviera Beach - Community Dev.	P		E	P				P	A		P		P
CARL BAKER Port of Palm Beach	E		P	P				P	A		P		E
JAMIE BROWN/Felipe LoFaso City of Lake Worth - Public Services	P		Alt	P				P	P		P		P
VACANT/Lorraine Cargill South Florida Regional Transportation Authority	Alt		Alt	E				Alt	Alt		Alt		E
NATALIE CROWLEY/Todd Engle/Michael Morrow City of Palm Beach Gardens - Planning	Alt		Alt	Alt				Alt	Alt		Alt		Alt
KIM DELANEY/Thomas Lanahan Treasure Coast Regional Planning Council	A		P	P				P	P		P		P
THOMAS DRISCOLL/Chang-Jen Lan Town of Jupiter- Community Dev.	P		Alt	Alt				Alt	P		P		Alt
ELIZABETH EASSA/Tamashbeen Rahman City of Boca Raton - Planning	P		Alt	P				P	E		P		A
ALEX HANSEN City of West Palm Beach - Planning	P		P	P				P	P		P		P
KARA IRWIN-FERRIS City of Greenacres - Planning & Engineering	P		A	A				P	P		P		P
ANDREW MACK/Michael Rumpf City of Boynton Beach - Public Works & Engineering	P		***P	P				P	P		P		A
MAHER MANSOUR/Joyce Cai School District of Palm Beach County	P		P	P				P	P		Alt		P
CHRISTOPHER MARSH/Bradford O'Brien Village of Royal Palm Beach	P		E	P				P	P		P		P
MICHAEL O'DELL/Thomas Lundeen Village of Wellington	-		-	-				***P	P		A		A
RICHARD READE/Kim Glas-Castro Village of Palm Springs	Alt		E	Alt				Alt	Alt		E		Alt
TIM STILLINGS City of Delray Beach	P		P	A				A	***P		P		E
MARIA TEJERA/Quan Yuan City of Boca Raton - Engineering	P		P	P				P	P		P		P
VACANT/Steve Anderson Palm Tran	P		A	A				Alt	A		A		Alt
VACANT/Khanh Uyen Dang City of West Palm Beach - Engineering	P	P	P			P	P		P		A		
VACANT/Jorge Perez PBC Planning, Zoning & Building	Alt	Alt	P			E	Alt		Alt		Alt		
KENNY WILSON/Janelle St. Ange PBC Health Department - Environ/Air Pollution	P	P	P			P	P		P		A		
MAYUR PATEL/Yanique Kelly FDOT - Planning & Environmental Mgmt. <i>Non-Voting Advisory Member</i>	Alt	Alt	Alt			Alt	P		P		Alt		

\*2019 Chair  
 E = Excused Absence  
 Shaded Area= Meeting not held

\*\*2019 Vice Chair  
 A = Absent/No Attendance

P = Member Present  
 - = Member not assigned

Alt = Alternate Present  
 \*\*\*New Appointment





## 2045 LRTP Goals & Performance Measures

Source	Recommended LRTP Performance Measure	Actual Values					Targets				
		2014	2015	2016	2017	2018	1-yr	2-yr	4-yr	2030	2045
<b>Goal 1: Preserve</b>											
<b>Maintain System</b>											
<b>Pavement</b>											
FAST Act	Interstate in Good condition	65.2%	58.6%	62.4%	55.2%	n/a		n/a	≥ 60.0%		
FAST Act	Interstate in Poor condition	0.0%	0.0%	0.0%	0.0%	n/a		n/a	≤ 5.0%		
FAST Act	non-Interstate NHS in Good condition	21.4%	44.2%	41.7%	40.3%	n/a		≥ 40.0%	≥ 40.0%		
FAST Act	non-Interstate NHS in Poor condition	8.8%	1.2%	0.4%	0.5%	n/a		≤ 5.0%	≤ 5.0%		
NEW	Non-NHS SHS in Good condition	n/a	n/a	n/a	55.2%	n/a		80%	n/a		
<b>Bridges</b>											
FAST Act	NHS bridges in Good condition	n/a	n/a	87.7%	88.1%	n/a		≥ 50.0%	≥ 50.0%		
FAST Act	NHS bridges in Poor condition	n/a	n/a	1.2%	1.1%	n/a		≤ 10.0%	≤ 10.0%		
NEW	Non-NHS (federal-aid eligible) bridges in Good condition	n/a	n/a	n/a	88.7%	n/a		90%	n/a	95%	99%
<b>Transit</b>											
FAST Act	Vehicles exceeding useful life	n/a	n/a	n/a	n/a	0%	≤10%				
	Equipment exceeding useful life	n/a	n/a	n/a	n/a	26%	≤20%				
	Facilities exceeding useful life	n/a	n/a	n/a	n/a	0%	0%				
<b>Protect Environment</b>											
2040 LRTP	Daily fuel use (gal) per person	1.20	1.24	1.27	1.30	1.29				1.25	0.95
2040 LRTP	Daily Vehicle Miles Traveled per person	25	26.5	27.8	28.4	n/a				21.0	20.0
NEW	% electric vehicles in transit fleet	0	0	0	0	0				75%	100%

Source	Recommended LRTP Performance Measure	Actual Values					Targets				
		2014	2015	2016	2017	2018	1-yr	2-yr	4-yr	2030	2045

**Resiliency**

2040 LRTP	% of SIS facilities that accommodate 2-ft sea level rise and/or 10-ft storm surge	n/a	n/a	n/a	n/a	TBD				90%	90%
NEW	% tree canopy coverage in roadway right-of-way	n/a	n/a	n/a	n/a	TBD				TBD	TBD
NEW	% pervious area in roadway right-of-way	n/a	n/a	n/a	n/a	TBD				TBD	TBD

**Goal 2: Safe**

**Vision Zero**

FAST Act	Number of fatalities	130	186	179	160	168	0	0	0	0	0
FAST Act	Rate of fatalities per 100 million vehicle miles traveled (VMT)	1.014	1.398	1.291	1.139	1.188	0	0	0	0	0
FAST Act	Number of serious Injuries	1050	1001	1129	1116	1163	0	0	0	0	0
FAST Act	Rate of serious injures per 100 million vehicle miles traveled (VMT)	8.817	7.522	8.141	7.947	6.923	0	0	0	0	0
FAST Act	Number of non-motorized fatalities and serious injuries combined	204	201	194	207	177	0	0	0	0	0
NEW	Number of rail fatalities	7	10	8	12	13	0	0	0	0	0

**Community Health**

NEW	% mileage that provides pedestrian facilities within 2 miles of elementary schools	n/a	n/a	n/a	n/a	79%				90%	100%
-----	--	-----	-----	-----	-----	-----	--	--	--	-----	------

**Goal 3: Efficient**

**Reliability**

FAST Act	% of person-miles traveled on the Interstate that are reliable	86%	85%	86%	84%	n/a		75%	70%	70%	70%
FAST Act	% of person-miles traveled on the non-Interstate NHS that are reliable	53%	48%	48%	89%	n/a		n/a	50%	50%	50%

Source	Recommended LRTP Performance Measure	Actual Values					Targets				
		2014	2015	2016	2017	2018	1-yr	2-yr	4-yr	2030	2045
FAST Act	Truck travel time reliability ratio (TTTR) on the Interstate	1.74	1.81	1.84	1.72	n/a		1.75	1.8	n/a	n/a
NEW	ratio of transit v. car average commute time	1.85	1.93	1.97	1.97	n/a				1.75	1.5

### Stewardship

Passenger trips per revenue hour

2040 LRTP	for Tri-Rail service	38.63	36.41	36.41	34.96	n/a				40	50
	for Palm Tran fixed route service	26.47	22.39	22.39	18.40	n/a				30	40

### Goal 4: Connected

#### Complete Streets

Centerline mileage of thoroughfares with

2040 LRTP	separated bike lanes	0	0	0	0	0				20	40
	10-ft or wider shared use pathways	25	50	50	50	72				100	150
	buffered bike lanes	8	8	8	8	12				20	40
	designated bike lanes	125	160	180	180	200				300	600

#### Equity

Percentage of thoroughfare mileage near transit hubs with

2040 LRTP	dedicated bicycle facilities (within 3 miles)	10.0%	7.0%	7.0%	7.0%	10.0%				100%	100%
	dedicated pedestrian facilities (within 1 mile)	85.0%	85.0%	85.0%	85.0%	85.0%				100%	100%

### Goal 5: Multimodal

#### Commuter Mode Split

2040 LRTP	Walking	1.57%	1.54%	1.49%	1.50%	n/a				5%	10%
	Biking	0.55%	0.66%	0.67%	0.62%	n/a				3%	5%
	Transit	1.92%	1.97%	1.97%	1.88%	n/a				7%	15%

Source	Recommended LRTP Performance Measure	Actual Values					Targets				
		<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>1-yr</u>	<u>2-yr</u>	<u>4-yr</u>	<u>2030</u>	<u>2045</u>

**Freight**

Annual tonnage of freight for

2040 LRTP	Port of Palm Beach	2.15M	2.16M	2.52M	2.48M	2.57M				2.28M	3.2M
	Palm Beach International Airport	26.5	26.2k	23.6k	25.8k	26.8k				30.0k	40.0k

## Summary Schedule

ACTIVITY	2018												2019											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Public Education and Outreach																								
Data Assembly & Review																								
Revenue Projections																								
Local GOMs																								
Multimodal Travel Demand Forecasting/ Desired Projects/Cost Estimates																								
Short Term Plan (through 2030)																								
Long Term Plan (2031 to 2045)																								
Scenario Planning																								
LRTP Evaluation and Implementation Plan																								
Final Documentation																								
Other Meetings	CK	AK																						

*Note: Adoption must occur by October 2019*

Consultant Team Kick-off Meeting

CK

Milestone Meeting



Governing Board



Interagency Kick-off Meeting

AK

Monthly Meeting





PALM BEACH  
Transportation Planning Agency

# VISION ZERO

# ACTION PLAN



# PALM BEACH TRANSPORTATION PLANNING AGENCY

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Project No. 1920511

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## APPENDICES

- Appendix A – Methodology
- Appendix B – High Crash Locations



<https://commons.wikimedia.org/w/index.php?curid=164728>

In Palm Beach County, there were 6,760 fatal and serious injury crashes from 2011 and 2017. *These crashes resulted in over 1,000 people dying and almost 7,200 people suffering from serious injuries.* Each of these people had family, friends, coworkers and communities who were also impacted.

## INTRODUCTION

The Palm Beach Transportation Planning Agency (TPA) has committed to establishing a regional safety vision to eliminate traffic fatalities and serious injuries. Vision Zero, Road to Zero, and Toward Zero Deaths are three safety planning initiatives within this framework at the national, state, and local levels focused on eliminating traffic-related fatalities and serious injuries. The initiatives are built on the fundamentals of a safe systems approach. Under the safe systems approach, all parts of the transportation system must be strengthened in order to save lives. Actions and responsibilities are more heavily attributed to the roadway system designers, including engineers, public health professionals, policymakers, and law enforcement; however, individuals still have a significant responsibility to abide by laws and regulations.

Orlando, Fort Lauderdale, and most recently, West Palm Beach have adopted Vision Zero as their goal.



Metropolitan planning organizations, like the Palm Beach TPA, are uniquely suited to take on a leadership role as they are positioned to identify regional actions and policies that local governments, the Florida Department of Transportation (FDOT), and other regional partners can implement to reach zero traffic-related deaths and serious injuries for people walking, bicycling and driving. The TPA is already required by the Federal Highway Administration (FHWA) to track five safety performance measures and set annual targets, in collaboration with FDOT, as noted below:

FEDERAL SAFETY PERFORMANCE TARGETS	TPA ADOPTED TARGETS
1 Number of fatalities	
2 Rate of fatalities per 100 million vehicle miles traveled (VMT)	
3 Number of serious injuries	
4 Rate of serious injuries per 100 million VMT	
5 Number of non-motorized fatalities and non-motorized serious injuries	

The TPA also provides funding for long-range transportation plans, serves as a regional nexus for crash data and performance measures, and can stimulate a collaborative process to address issues that no single jurisdiction can tackle alone.

The purpose of this plan is to use a data-driven approach to establish safety priorities and identify achievable strategies with the best potential to reduce, and ultimately eliminate, fatalities and serious injuries for all roadway users.

The Palm Beach TPA engaged a team of stakeholders from state and local agencies to review fatal and serious injury crash trends in Palm Beach County and to establish a consistent and cohesive vision for reaching zero deaths and serious injuries countywide. The Vision Zero Stakeholder Team (VZST) met twice over the course of the Vision Zero Action Plan development and provided feedback on the Plan’s countermeasures and action items. Stakeholders included the FDOT Safety Office, Palm Beach County Engineering, and municipal and public health partners. The VZST provides the basis for future stakeholder efforts that will help implement and monitor the Vision Zero Action Plan.

Vision Zero is a culture change, from accepting needless deaths and life-altering injuries as the cost of doing business to recognizing that they are preventable and therefore unacceptable. **For Vision Zero to succeed, we need everyone’s help.** By taking action to prioritize safety, we can create a new culture where everyone has a choice to walk, bike, drive, use transit, or ride a motorcycle and feel safer and more comfortable travelling throughout Southeast Florida.



## CRASH ANALYSIS

This report summarizes the findings from an analysis of vehicle, pedestrian and bicycle crashes in Palm Beach County. **For the purpose of this analysis, only fatal and serious injury crashes were evaluated.** Crash data was obtained from the FDOT's Crash Analysis Reporting System (CARS) for the years 2011 through 2017. The FDOT collects crash statistics for state and local roadways from the Department of Highway Safety and Motor Vehicles (DHSMV) and adds geospatial and roadway characteristics to create the CARS.<sup>1</sup> The DHSMV crash data for all fatal and serious injury crashes originates from a Long Form crash report (HSMV 90010S), which is completed by a law enforcement officer, typically at the scene of the crash. A wide range of information regarding the crash is requested by the form, many of which can require personal interpretation of the crash scene by the reporting officer. The personal nature of completing the crash report can also lead to infrequent instances of human error, with incomplete or missing data fields. As a result, in performing this crash analysis, there are cases where data was missing for a specific variable. These occurrences were negligible in comparison to the data that was available, and do not have a substantial impact on the overall resulting trends.

The roadway characteristics, such as functional classification, posted speed limit and geometric data, are sourced from the FDOT Roadway Characteristics Inventory (RCI), and are only available for state-maintained roadways. As a result, roughly 45% of the fatal and serious injury crashes do not have full roadway attributes assigned to them. The TPA's Centerline GIS file was used to obtain posted speed and number of lanes on non-state facilities, but some attributes (e.g., functional classification, geometric roadway data) were not available for non-state facilities. This data limitation is noted in other parts of the report where it impacts crash analysis. Appendix A includes a detailed description of the methodology applied to calculate the different types of fatal and serious injury crashes in the county.

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<sup>1</sup> FDOT's Safety Office, Crash Data FAQs, <http://www.fdot.gov/safety/11A-SafetyEngineering/crash%2odata/Frequently%2oAsked%2oQuestions.pdf>

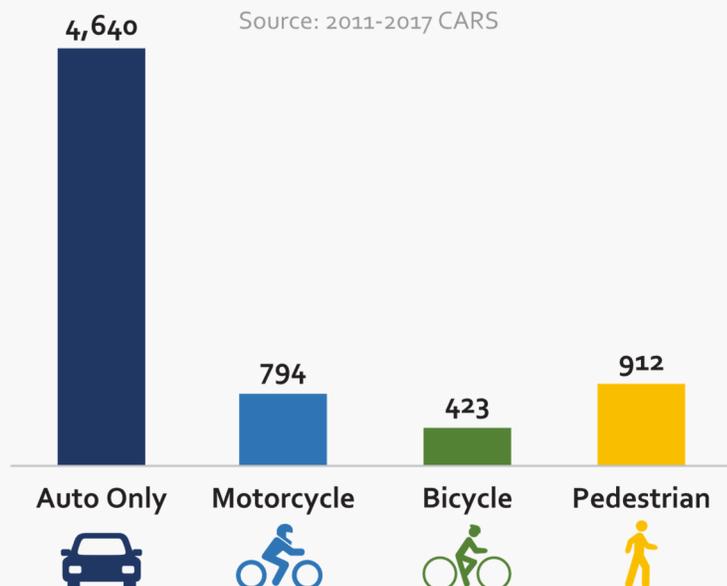


By lapersonalattorney - Own work, CC BY-SA 4.0, [https://commons.wikimedia.org/wiki/File:Bike\\_%26\\_Car\\_Accident\\_-\\_Personal\\_Injury.jpg](https://commons.wikimedia.org/wiki/File:Bike_%26_Car_Accident_-_Personal_Injury.jpg)

## THE BIG PICTURE

People are at greatest risk walking, bicycling or riding a motorcycle. Palm Beach County experienced a nearly **9% jump in pedestrian fatalities and serious injuries** in 2016, according to the Florida Department of Highway Safety and Motor Vehicles.

### FATAL AND SERIOUS INJURY CRASHES BY MODE





Vulnerable users (motorcyclists, bicyclists, and pedestrians) accounted for less than 3% of the commute mode share in the county, however, they accounted for more than 30% of all fatal and serious injury crashes.

TOTAL FATAL & SERIOUS INJURY CRASHES IN PALM BEACH COUNTY: **6,760**

Mode	Commute Mode Share*	% of Total Fatal & Serious Injury Crashes
	87.7%	69%
	0.2%	12%
	0.6%	6%
	1.5%	13%

Sources: 2011-2017 FDOT CARs  
 2012-2016 ACS

\*The percentages shown do not reflect all the commute modes included in the ACS dataset

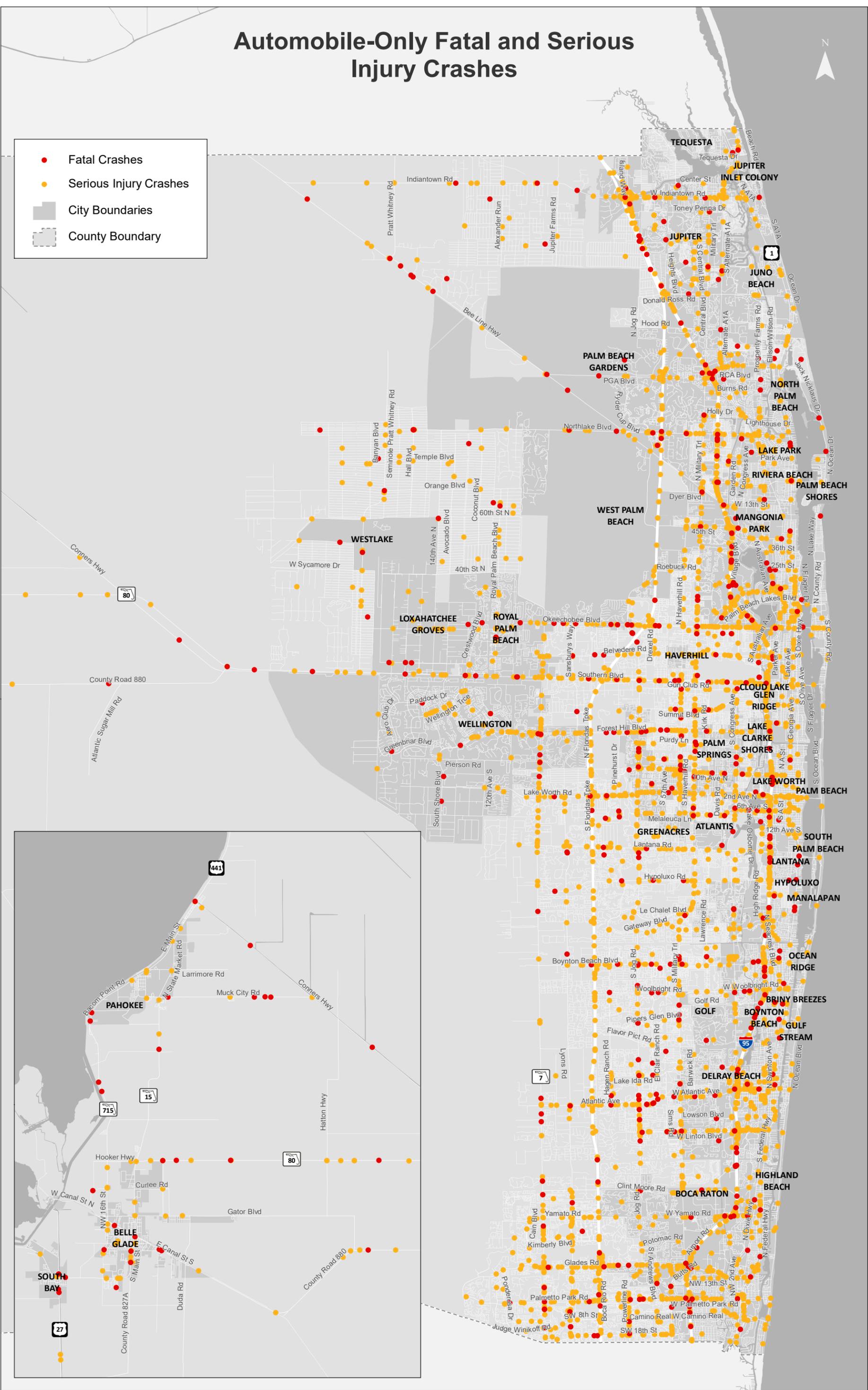
Special attention should be devoted to developing countermeasures for crashes involving bicyclists and pedestrians. Proven countermeasures and their application have been extensively researched by multiple agencies including FHWA's Proven Safety Countermeasures, which is updated approximately every five years<sup>1</sup>.

The following maps illustrate the distribution of the fatal and serious injury crashes for each of the four modes.

# Automobile-Only Fatal and Serious Injury Crashes



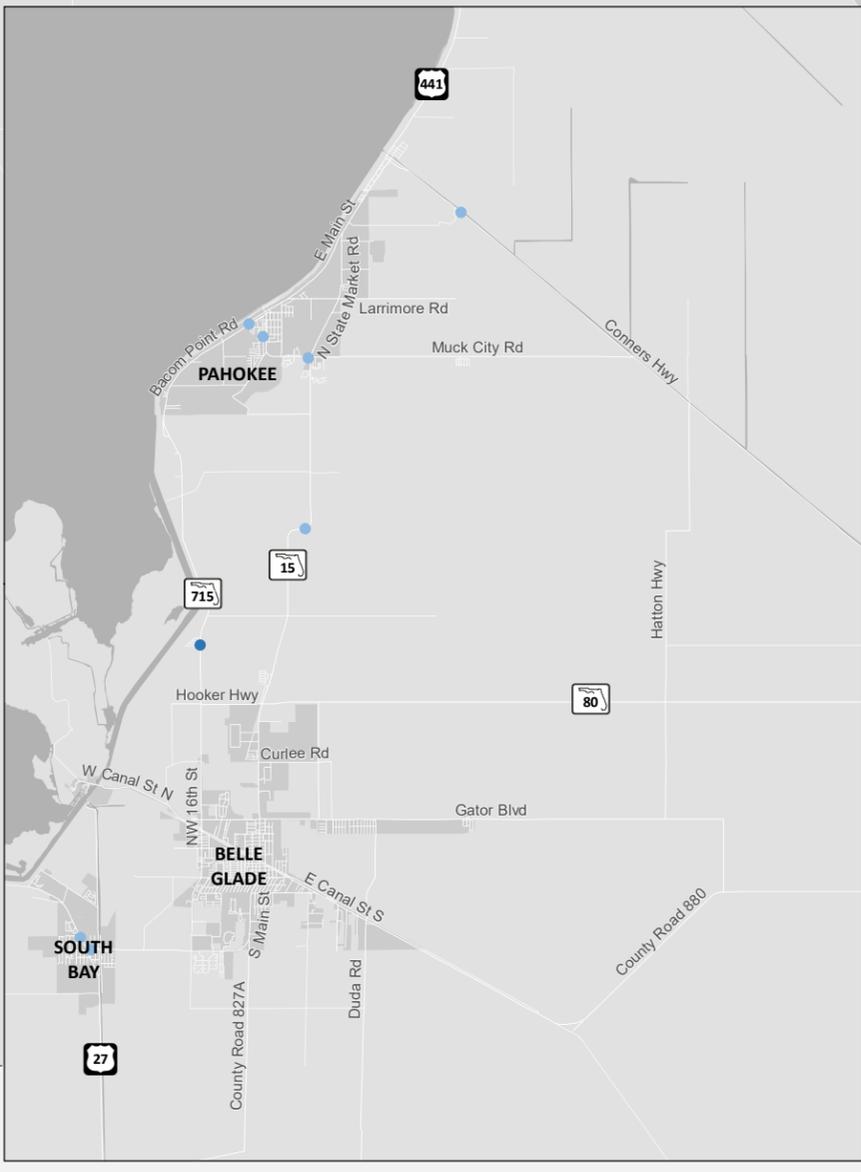
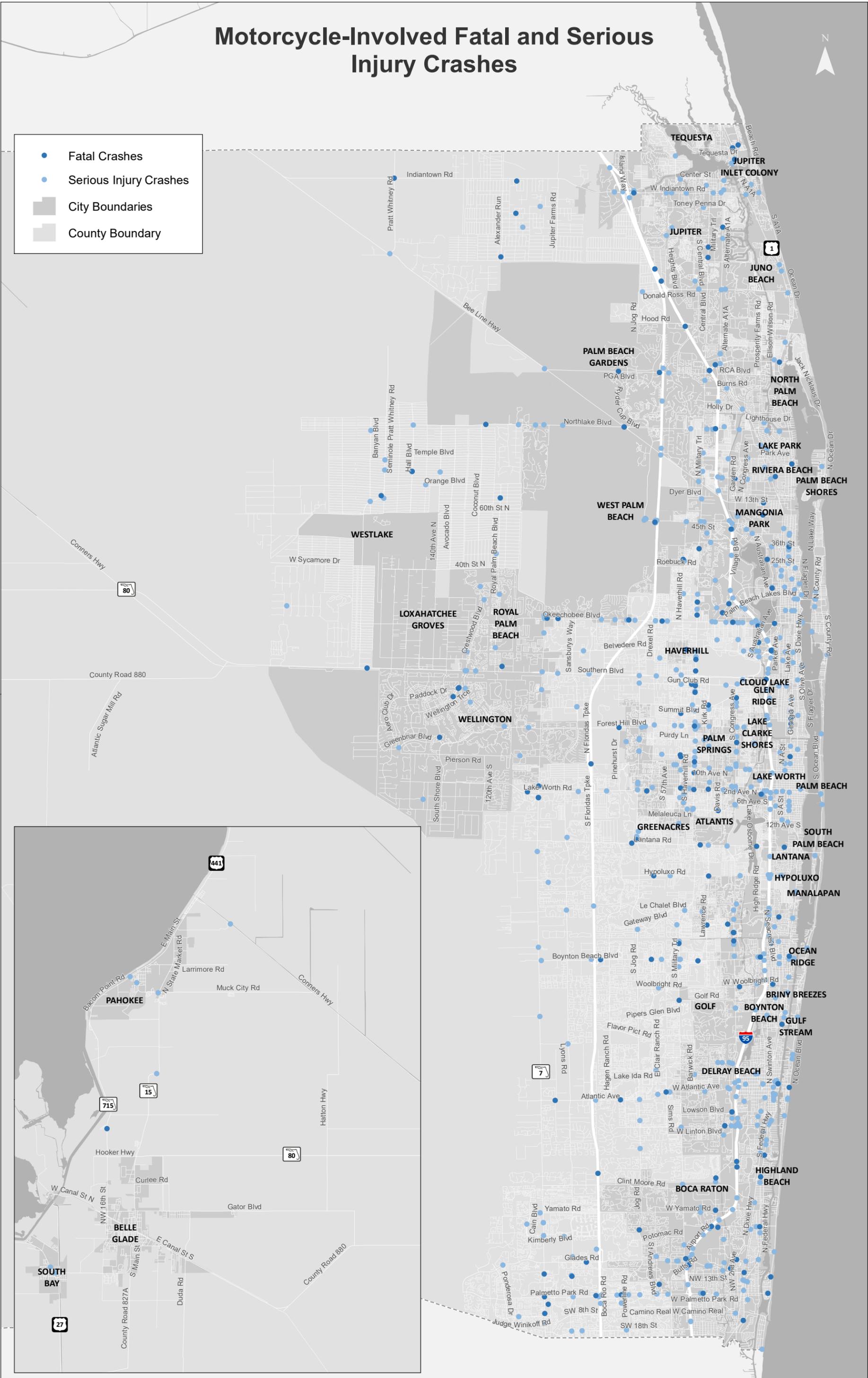
- Fatal Crashes
- Serious Injury Crashes
- City Boundaries
- County Boundary



# Motorcycle-Involved Fatal and Serious Injury Crashes



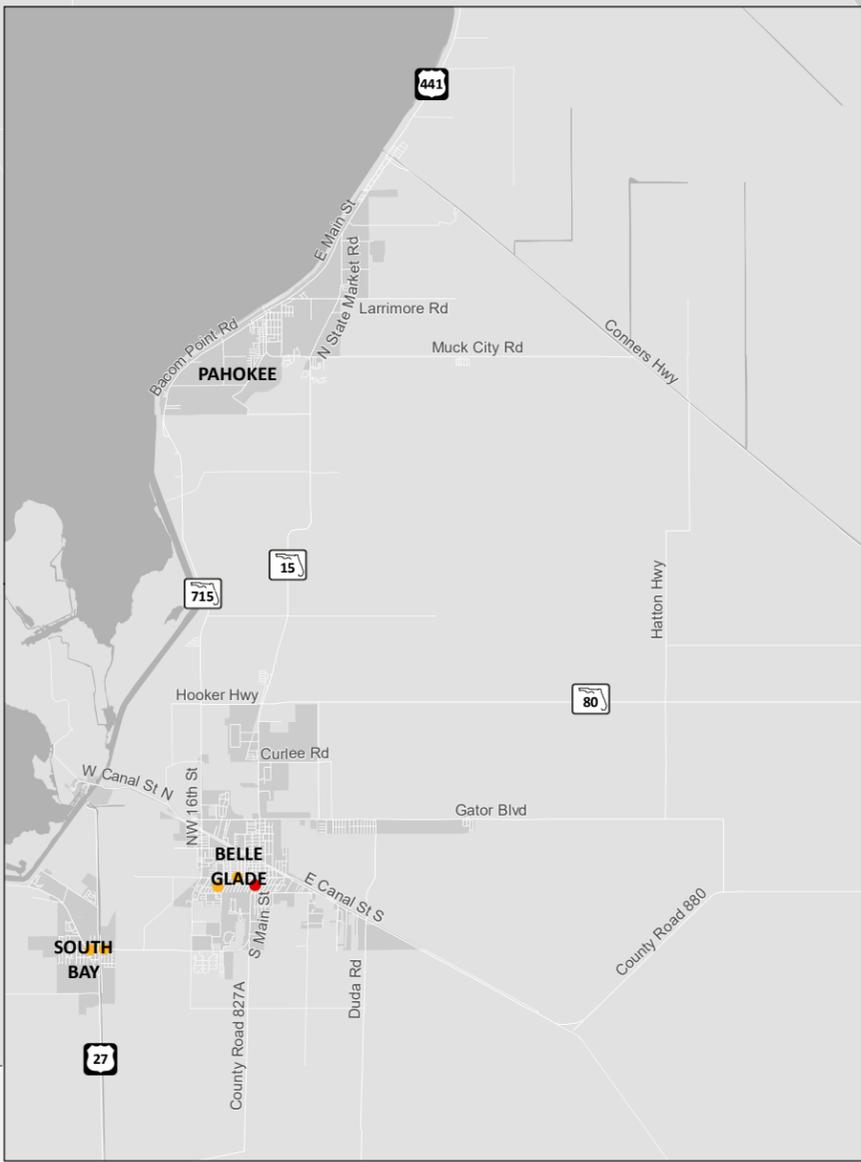
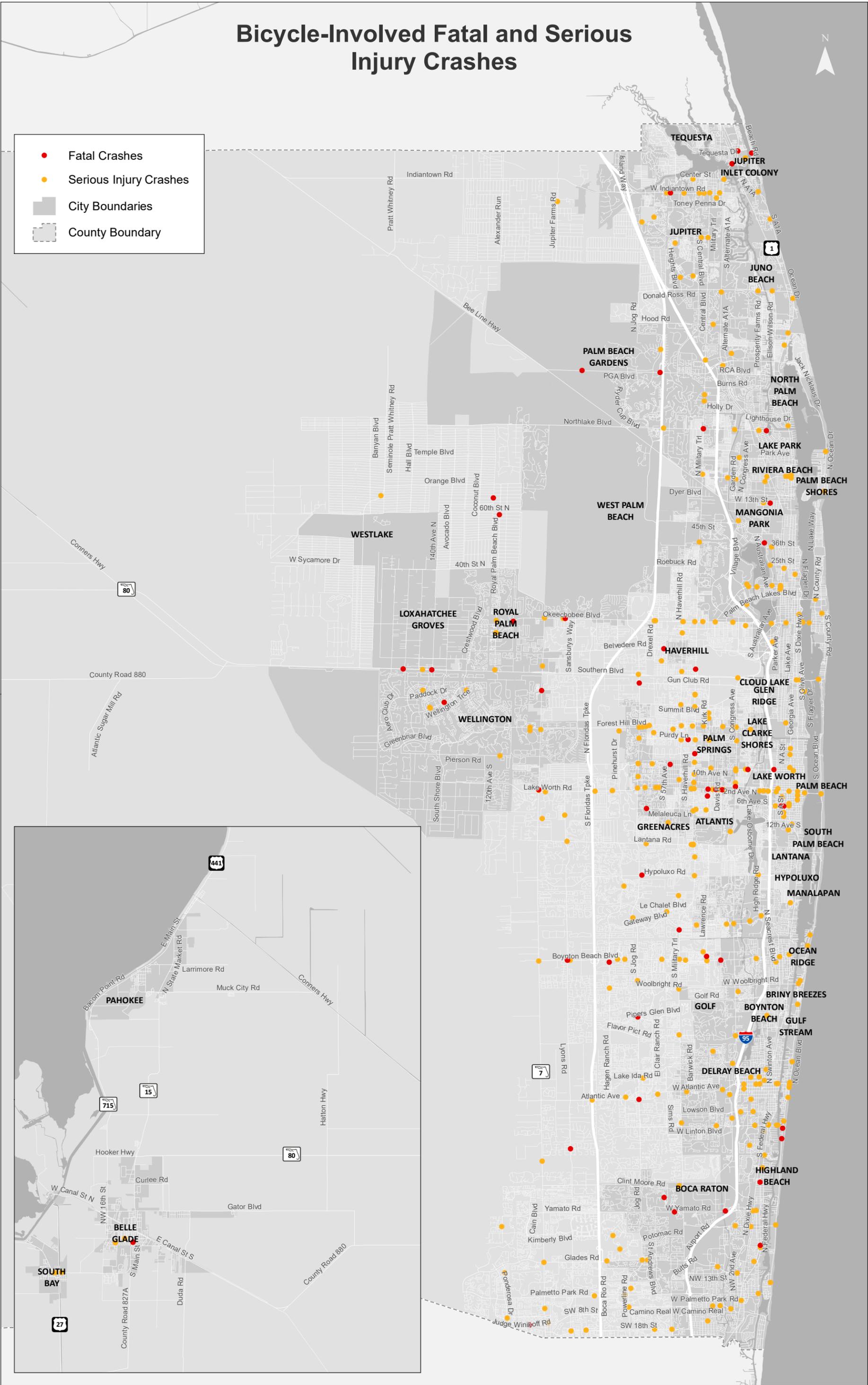
- Fatal Crashes
- Serious Injury Crashes
- City Boundaries
- County Boundary



# Bicycle-Involved Fatal and Serious Injury Crashes



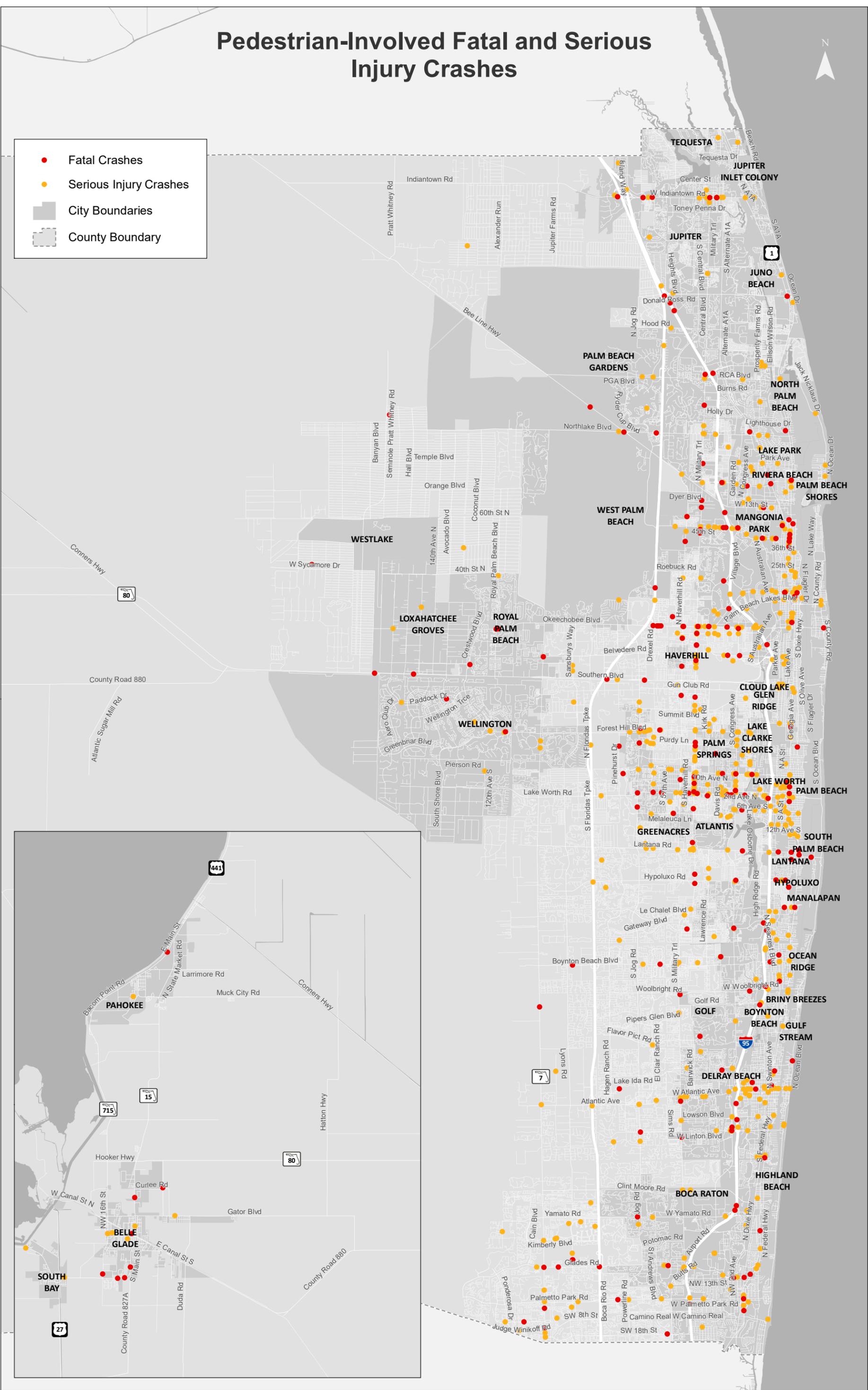
- Fatal Crashes
- Serious Injury Crashes
- City Boundaries
- County Boundary



# Pedestrian-Involved Fatal and Serious Injury Crashes



- Fatal Crashes
- Serious Injury Crashes
- City Boundaries
- County Boundary





## DIGGING DEEPER INTO THE DATA

### High Crash Locations

Vision Zero communities have found that identifying high crash locations strengthens multi-departmental collaboration and builds an understanding among decision-makers, including elected officials, of what’s needed and where, so that funds can be invested in the areas that are most impacted by death and injury.<sup>2</sup>

To identify the high crash locations for each mode, a consistent “cellular” network consisting of a 0.25-mile wide hexagonal grid was geospatially overlaid on the mapped fatal and serious injury crashes. This method was used to find the densest crash clusters, regardless of whether they were corridor segments or intersections, and identify locations within the TPA that have the highest frequency of fatal and serious injury crashes. Specifically, an individual location for each mode represents either an intersection, a roadway segment, or a small network of parallel streets that exhibited a significant number of crashes within close proximity. The cut-off point for each mode-specific list was not restricted to a set number but was based on natural data drop-off points of the crash frequencies observed by the hexagonal clusters. Locations that exhibited the highest crash frequencies of fatal and serious injury crashes in Palm Beach County were mapped by mode and are summarized below. The full list of high crash locations for each mode can be found in Appendix B.

#### Automobile Fatal and Serious Injury High Crash Locations

I-95 Interchanges (as vehicles entered and exited the high-speed freeway)	Other High Crash Locations
Boca Raton	Palmetto Park Rd at Powerline Rd (Boca Raton)
Boynton Beach	Congress Ave between Melaleuca Ln and 6th Ave S (County)
Lake Worth	Jog Rd at Lake Ida Rd (County)
Lantana	Glades Road at Boca Rio Road near the Turnpike (County)
Palm Beach Gardens	Powerline Rd at SW 18th St (County)
West Palm Beach	Forest Hill Blvd at SR 7, from Wellington's Edge Dr/Hunter Dr to SR 7 (Wellington)

<sup>2</sup> <https://visionzeronetwork.org/hin-for-the-win/>



### Motorcycle Fatal and Serious Injury High Crash Locations

I-95 Interchanges (as vehicles entered/ exited the freeway)	Other High Crash Locations
Boynton Beach Blvd	Dixie Hwy in Lake Worth and West Palm Beach
Hypoluxo Rd	Linton Blvd west of Congress Ave in Delray Beach
6 <sup>th</sup> Ave S.	6 <sup>th</sup> Ave S street east of I-95 in Lake Worth
Northlake Blvd	10 <sup>th</sup> Ave N at Congress Ave in Palm Springs
Belvedere Rd	45 <sup>th</sup> St between Jog Rd and Haverhill Rd in West Palm Beach
Okeechobee Blvd	Belvedere Rd near Australian Ave and the Palm Beach International Airport
	Boca Rio Rd at Palmetto Park Rd near Boca Raton

### Bicycle and Pedestrian Fatal and Serious Injury High Crash Locations

Bicycle	Pedestrian
Downtown Lake Worth	Indiantown Rd near A1A (Jupiter)
Lake Worth Rd from Gulfstream Rd to Congress Ave in Palm Springs	Downtown West Palm Beach
Lantana Rd at I-95	Military Trail in Greenacres and near Okeechobee Blvd
Swinton Ave, Atlantic Ave, and Linton Blvd east of I-95 in Delray Beach	Dixie Hwy in West Palm Beach and Delray Beach
Boynton Beach Blvd at Lyons Rd	Palm Springs area
Broadway at W Blue Heron Rd (Riviera Beach)	Linton Blvd (Delray Beach)
Forest Hill Blvd and Lake Worth Rd in Greenacres	10 <sup>th</sup> Ave N, Lantana Rd, 45 <sup>th</sup> St, and Forest Hill Blvd
Forest Hill Blvd at SR 7 (Wellington)	



Roadway features were analyzed to determine if high rates of fatal and serious injury crashes could be correlated to certain design elements, such as posted speed, roadway width, turn lanes, or intersection signalization.

- While arterials represent only 15% of total centerline miles in the county, they accounted for the following percentages of fatal and serious injury crashes:
  - Auto - 31%
  - Motorcycle - 37%
  - Bicycle - 43%
  - Pedestrian – 36%
- Roadways with six or more travel lanes (all modes)
- Speed limits 45 MPH or higher (all modes)
- Near I-95 interchanges (autos and motorcycles)
- Roadways with high numbers of driveway openings<sup>3</sup> (pedestrians and bicyclists only)



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<sup>3</sup> Methodology: all High Crash locations were visually inspected and each site qualitatively marked as low/medium/high driveway use based both on the number of driveways present near the site and the frequency of use those driveways would expect (i.e., a few residential driveways are much less active than a few restaurant/shopping center driveways). Two-thirds of the locations fell into the medium or high categories.



## When are Fatal and Serious Injury Crashes Happening?

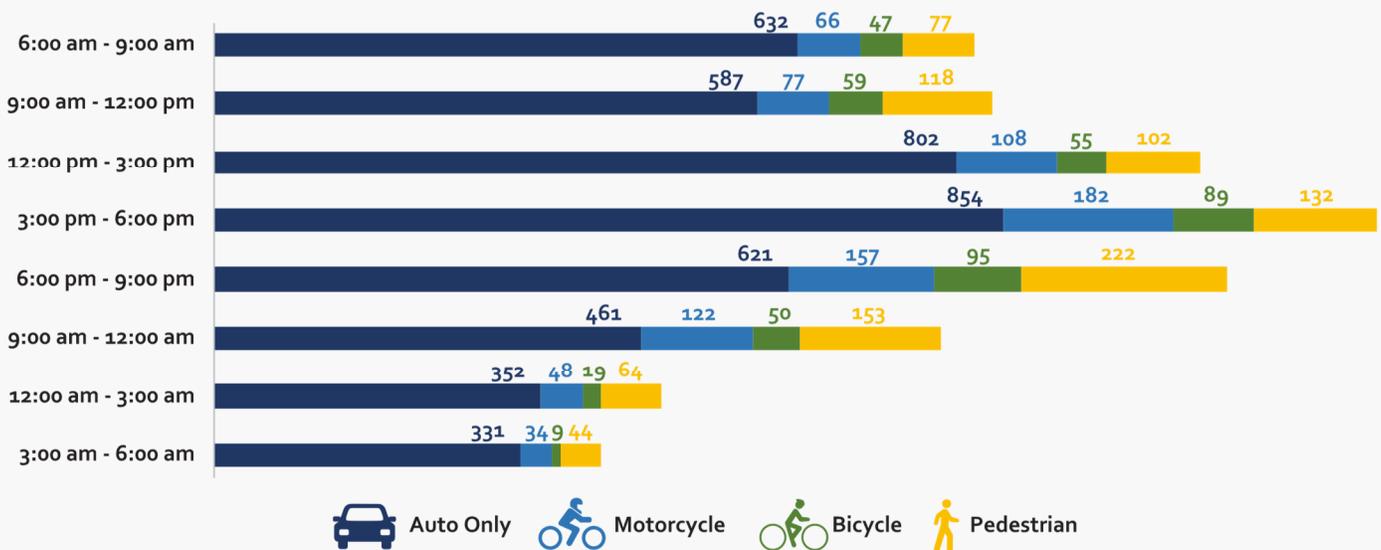
### By Time of Day

Most fatal and serious injuries occur between 3:00 PM and 9:00 PM for all modes.

As traffic volumes increase during the PM peak hours, the greater exposure increases the likelihood of crashes. Additionally, the higher traffic volumes that lead to traffic congestion may provoke aggressive driver behavior<sup>4</sup>, which, as national trends have shown, is a major contributor to vehicular crashes. Congestion management strategies, incident management, and the safety countermeasures proposed in this Action Plan should be considered collectively to alleviate the frequency of fatal and serious injury crashes during high traffic volume times of the day.

### FATAL & SERIOUS INJURY CRASHES BY TIME OF DAY

Source: 2011-2017 CARS



<sup>4</sup> People Saving People: On the Road to a Healthier Future”, NHTSA 2020 Report.



## Lighting Conditions

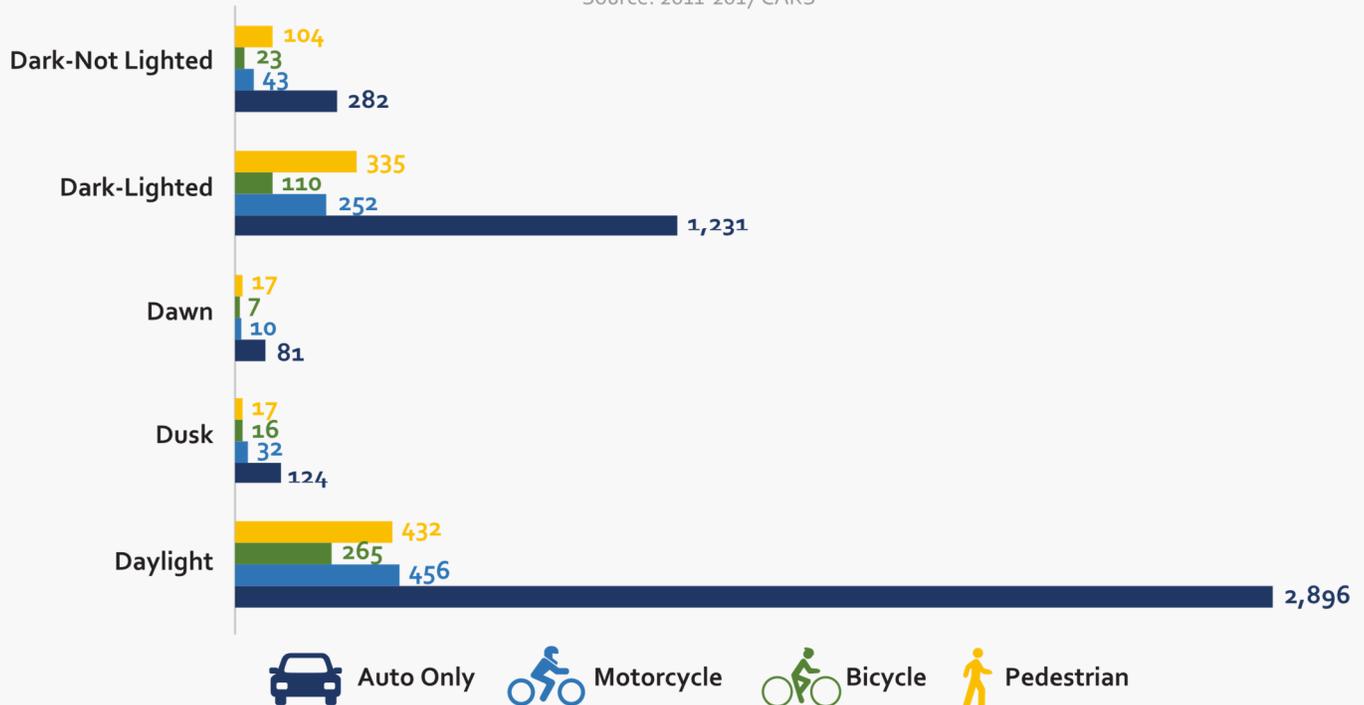
Fatal and serious injury crashes involving pedestrians occur primarily in dark conditions.

Over 25% of all fatal and serious injury crashes occurred during dark-lighted conditions.

- The proportion of non-daylight auto and motorcycle fatal and serious injury crashes were higher on freeways than non-freeways (8 % higher for autos, 7 % for motorcycles).
- Of the total auto head-on crashes, 44% occurred during non-daylight conditions.
- Of the auto crashes that occurred in dark-unlit conditions, 45% were rear-end crashes (compared to 37% during daylight and dark-lit conditions)
- 11% of pedestrians fatal and serious injury crashes occurred during dark-unlit conditions (bicycles were only 5%).

## FATAL & SERIOUS INJURY CRASHES BY LIGHTING CONDITIONS

Source: 2011-2017 CARS





Source: By William "Patrick" Ma..., CC BY-SA 3.0, [Wikimedia Commons](#)

### DARK-UNLIT CONDITION FATAL AND SERIOUS INJURY CRASHES

Crash locations were mapped to better understand where fatal and serious injury crashes occurred under dark-unlit conditions. These locations should be considered for lighting justification as well as other improvements:

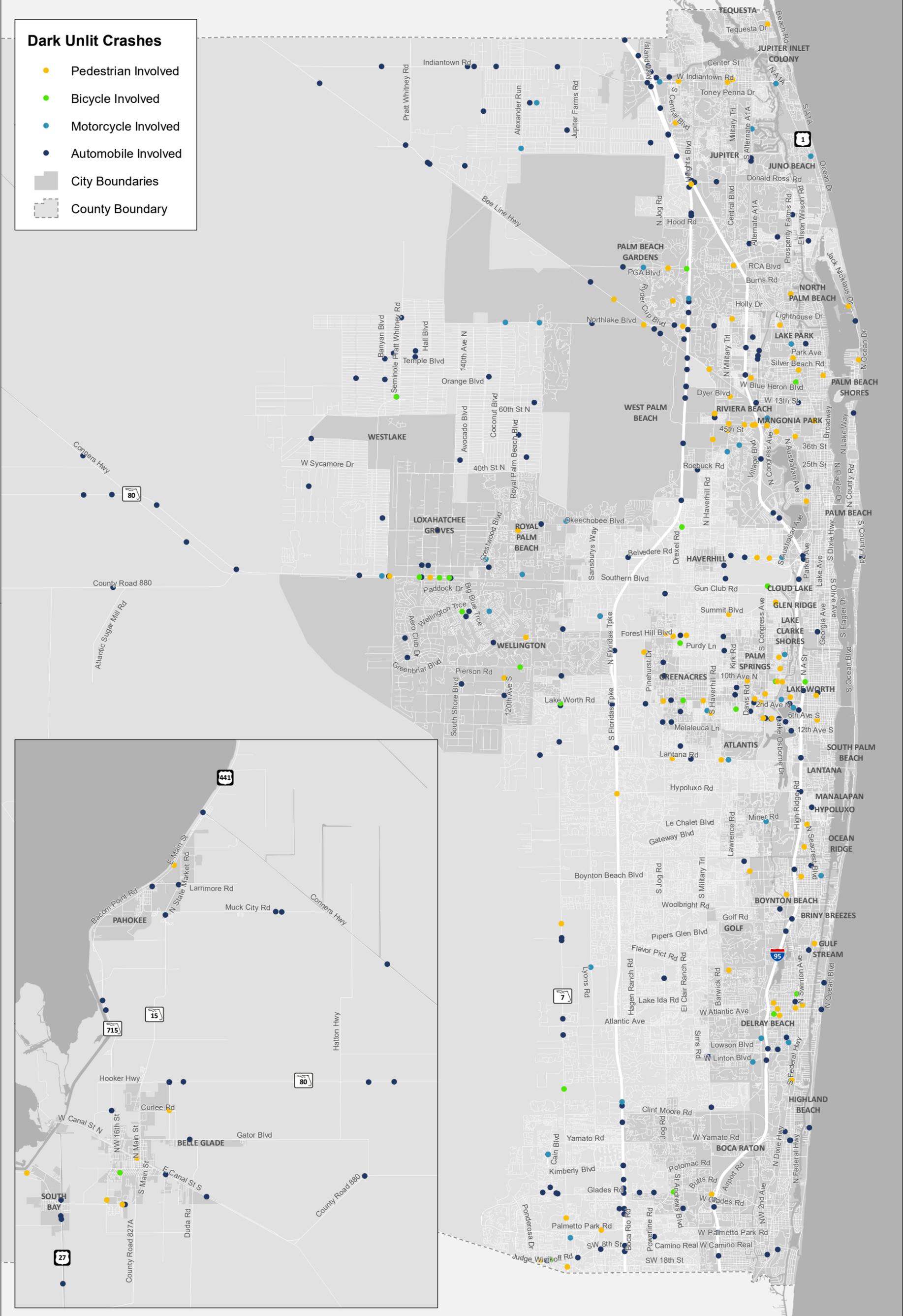
- Downtown Belle Glade
- SR 80/Southern Blvd at Sugarhouse Rd
- SR 80/Southern Blvd between Seminole Whitney Rd and Flying Cow Rd
- Glades Rd between Boca Rio Rd and the Turnpike
- The Turnpike at Glades Rd
- Beeline Hwy at the Turnpike
- I-95 at Donald Ross Rd
- The Turnpike at Hood Rd, and Hood Rd at Golden Eagle Circle
- Military Trail at 45th St

# Fatal and Serious Injury Crashes That Occurred During Dark, Unlit Conditions



## Dark Unlit Crashes

- Pedestrian Involved
- Bicycle Involved
- Motorcycle Involved
- Automobile Involved
- City Boundaries
- County Boundary



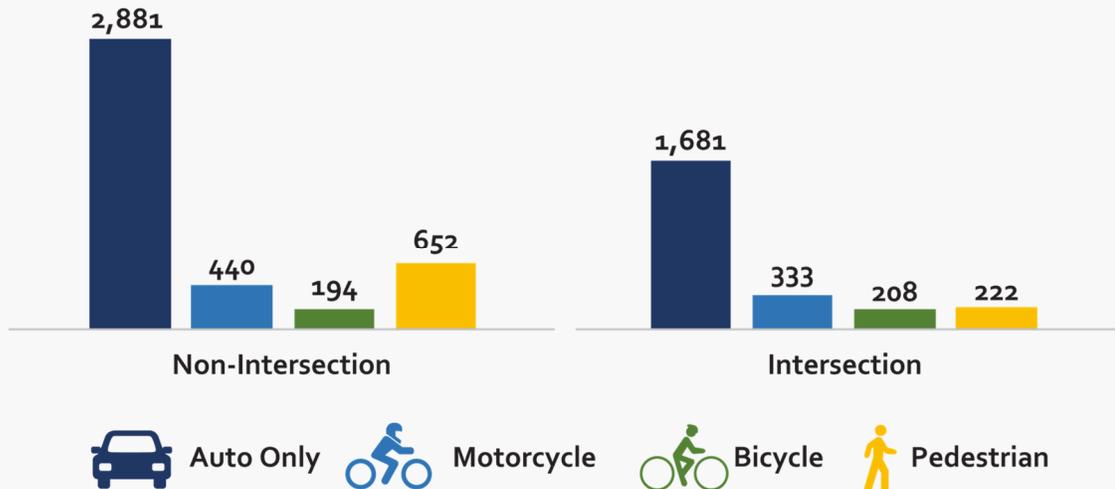


## Where are Fatal and Serious Injury Crashes Happening?

More than 60% of fatal and serious injury crashes occurred at non-intersection locations, including a 3:1 ratio for pedestrian-involved crashes.

### FATAL & SERIOUS INJURY CRASHES NON-INTERSECTIONS & INTERSECTIONS

Source: 2011-2017 CARS



### Intersections – Turning Movements

The following percentages show the proportions of each turning movement by mode at the time of the crash.

#### Left Turning Movements

- Auto: 15%
- Motorcycle: 23%
- Bicycle: 12%
- Pedestrian: 10%

#### Right Turning Movements

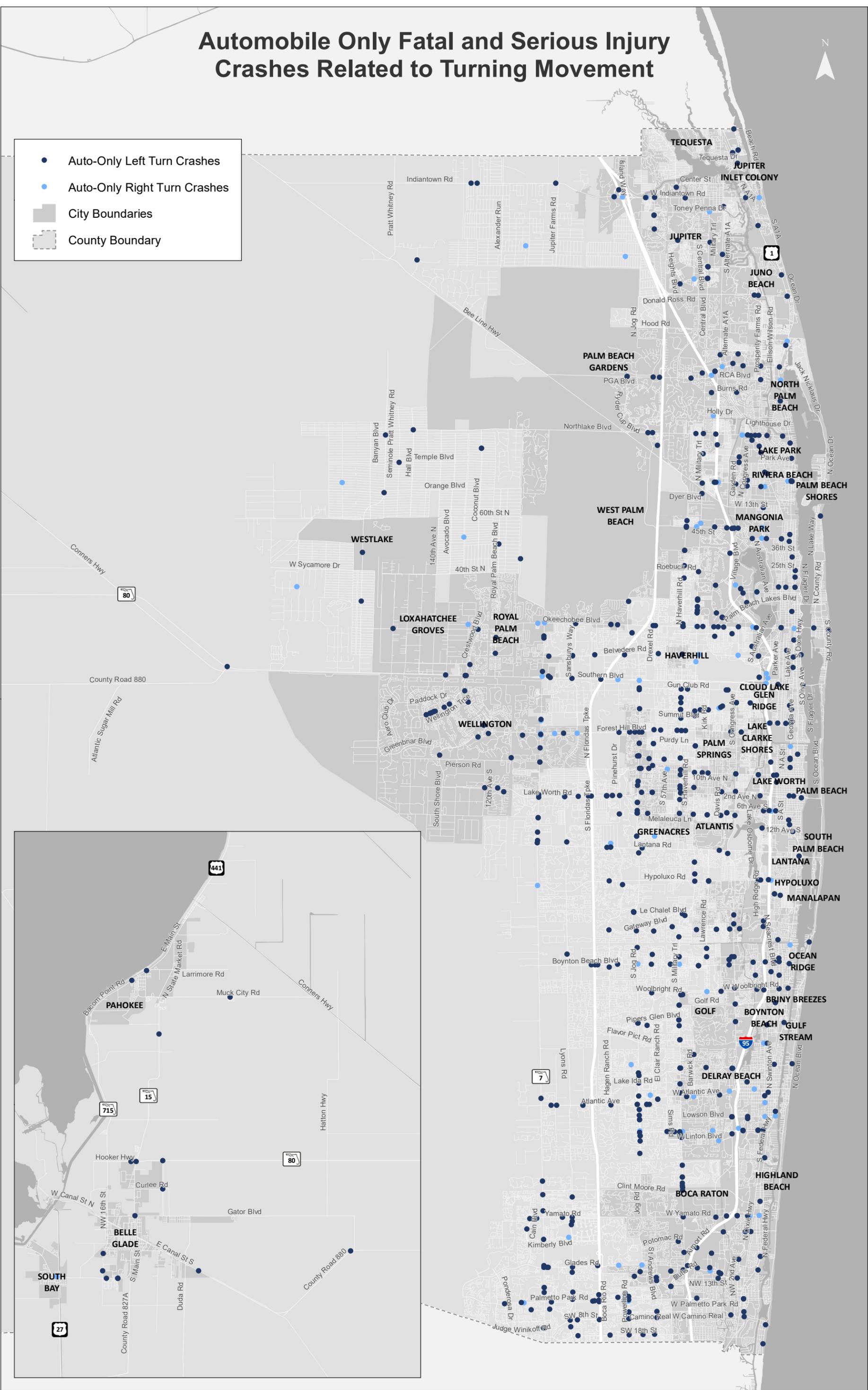
- Auto: 2%
- Motorcycle: 4%
- Bicyclists: 21%
- Pedestrians: 5%

Given that fatal and serious injury crashes that involved left- and/or right-turning movement varied by mode, they were mapped to better understand the distribution and trends.

# Automobile Only Fatal and Serious Injury Crashes Related to Turning Movement



- Auto-Only Left Turn Crashes
- Auto-Only Right Turn Crashes
- City Boundaries
- ▭ County Boundary

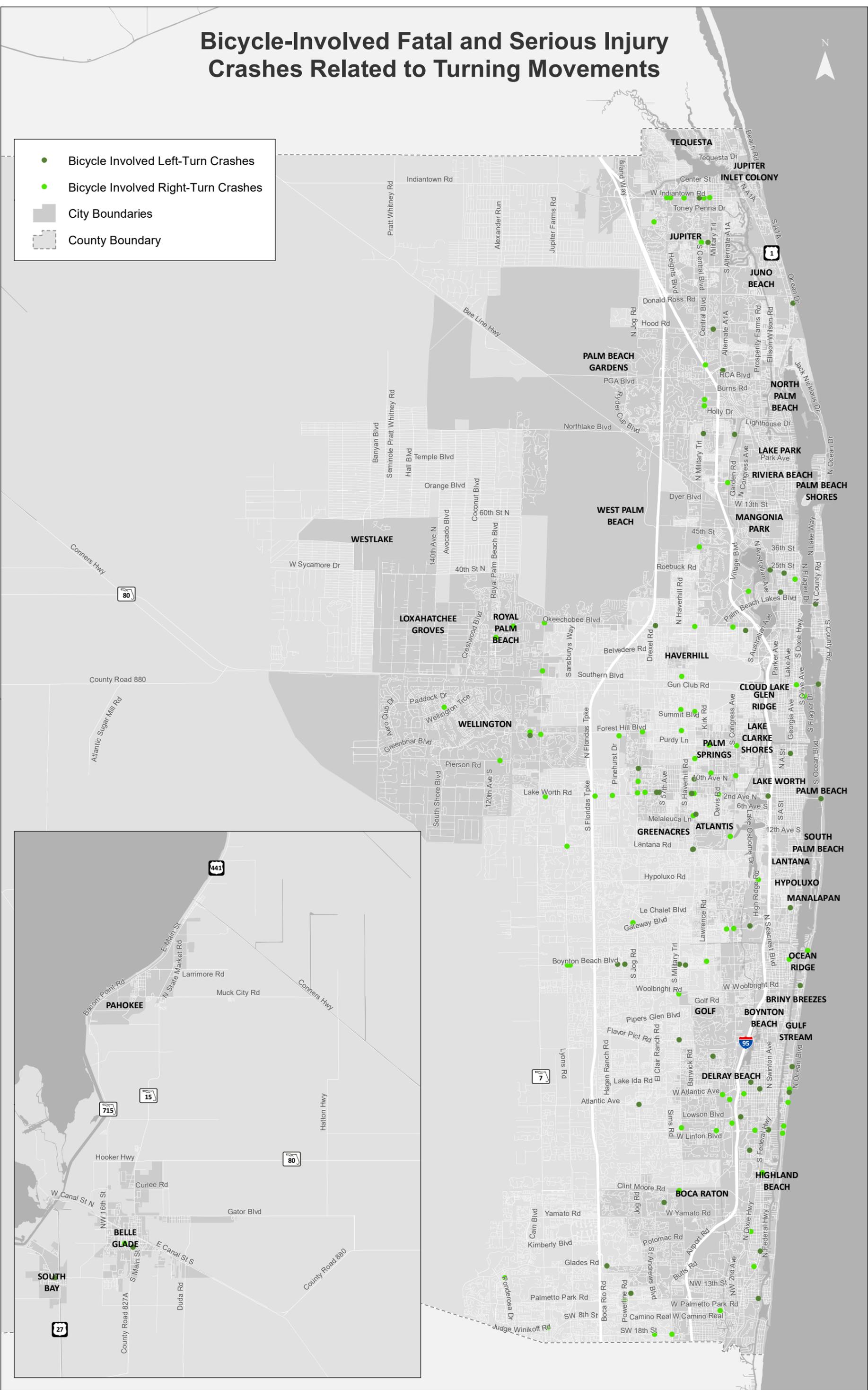




# Bicycle-Involved Fatal and Serious Injury Crashes Related to Turning Movements



- Bicycle Involved Left-Turn Crashes
- Bicycle Involved Right-Turn Crashes
- City Boundaries
- County Boundary







## TURNING MOVEMENT HIGH CRASH LOCATIONS

### Automobile Fatal and Serious Injury Turning Movement High Crash Locations

Wellington Trace between Corporate Dr and Greenview Shores Blvd (Wellington)

Glades Rd at SR 7

Lake Worth Rd at Lucerne Lakes Blvd

Palmetto Park Rd at Powerline Rd

Linton Blvd at Military Trail (Delray Beach)

45<sup>th</sup> St at Haverhill Rd (West Palm Beach)

PGA Blvd at I-95 (Palm Beach Gardens)

Broadway at Blue Heron Blvd (Riviera Beach)

### Motorcycle Fatal and Serious Injury Turning Movement High Crash Locations

Royal Palm Beach Blvd at Tangerine Blvd	Congress Ave at 2 <sup>nd</sup> Ave N (Palm Springs)
Palmetto Park Rd at Powerline Rd	A1A at East Riverside Dr (Jupiter)
I-95 at Indiantown Rd (Jupiter)	Atlantic Ave at Congress Ave (Delray Beach)
Okeechobee Blvd between Drexel Rd and East Drive/Meridian Rd	Lake Ida Rd at Congress Ave (Delray Beach)
Palmetto Park Rd between St. Andrews Blvd and Boca Del Mar Dr	CR 807 at SW 27 <sup>th</sup> Ave (Boynton Beach)
10 <sup>th</sup> Ave N between Swain Ave and Haverhill Rd (Greenacres)	Australian Ave at Florida Mango Rd
45 <sup>th</sup> St at Military Trail (West Palm Beach)	Belvedere Rd at Florida Mango Rd
Northlake Blvd between Dania Dr and I-95	Woolbright Rd at SW 18 <sup>th</sup> St
Palm Beach Lakes Blvd between Spencer Ave and Village Blvd (West Palm Beach)	Hypoluxo Rd at I-95 (Lantana)
Linton Blvd at Catherine Dr (Delray Beach)	Federal Hwy at 6 <sup>th</sup> Ave N (Lake Worth)



### Bicycle Fatal and Serious Injury Turning Movement High Crash Locations

S Main St at SE F Ave (Belle Glade)

Forest Hill Blvd at SR 7, Ring Rd at Hunter Dr (Wellington)

Boynton Beach Blvd at Lyons Rd

Palmetto Park Rd at Powerline Rd

Lake Worth Rd at Sherwood Forest Blvd (Greenacres)

Indiantown Rd between Center St and Maplewood Dr, Thelma Ave at Center St (Jupiter)

Military Trail at Lantana Rd

Military Trail at Lake Worth Rd (Greenacres)

Whitney Dr at W Indiantown Rd (Jupiter)

S Federal Hwy at Linton Blvd (Delray Beach)

### Pedestrian Fatal and Serious Injury Turning Movement High Crash Locations

Swinton Ave between SE 3<sup>rd</sup> St and SE 4<sup>th</sup> St (Delray Beach)

Atlantic Ave between NE 4<sup>th</sup> Ave and Intracoastal Way (Delray Beach)

Banyan Blvd between Dixie Hwy and Quadrille Blvd (West Palm Beach)

Dixie Hwy between 8<sup>th</sup> St and 10<sup>th</sup> St (West Palm Beach)

Palm Beach Lakes Blvd at Madeira Ct (West Palm Beach)



## Non-Intersection

Except for bicyclist crashes, over half of all fatal and serious injury crashes occurred at non-intersection locations.

### Non Intersection fatal and serious injuries

- Auto: 62%
- Motorcycle: 55%
- Bicycle: 46%
- Pedestrian: 71%

### Driveway- and alley-related crashes:

- Auto: 2%
- Motorcycle: 5%
- Bicycle: 9%
- Pedestrian: 5%

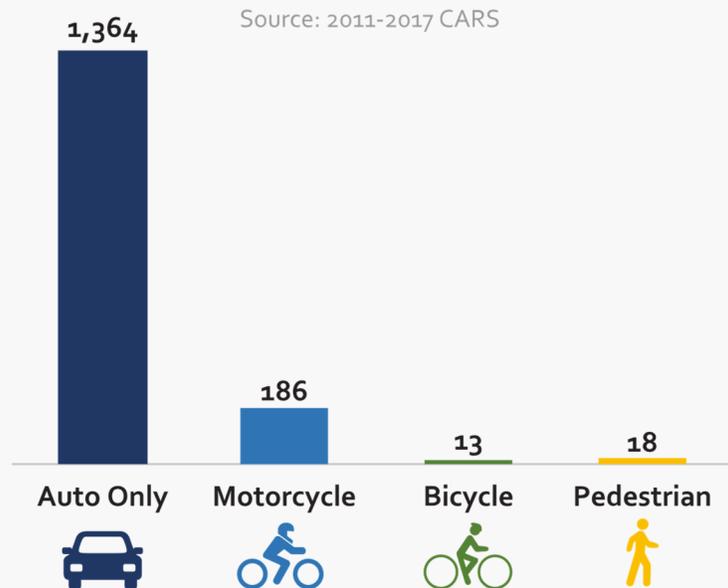


## Lane Departures

Lane-departure crashes involve running off the road, head on crashes or a sideswipe collision<sup>5</sup>. They accounted for almost 33% of auto and 25% of motorcycle fatal and serious injury crashes.

- 29% were on freeways
- 23% involved drugs/alcohol
- 48% occurred during non-daylight conditions

## FATAL & SERIOUS INJURY LANE-DEPARTURE CRASHES



The locations with the highest frequencies of lane departure fatal and serious injury crashes include:

- I-95 at Glades Rd
- I-95 at PGA Blvd
- I-95 at Blue Heron Blvd
- I-95 at Yamato Rd
- I-95 at Okeechobee Blvd
- 10<sup>th</sup> Ave N at I-95 and at Barnett Dr
- I-95 at Belvedere Rd

The map on the following page illustrates the locations of lane-departure fatal and serious injury crashes.

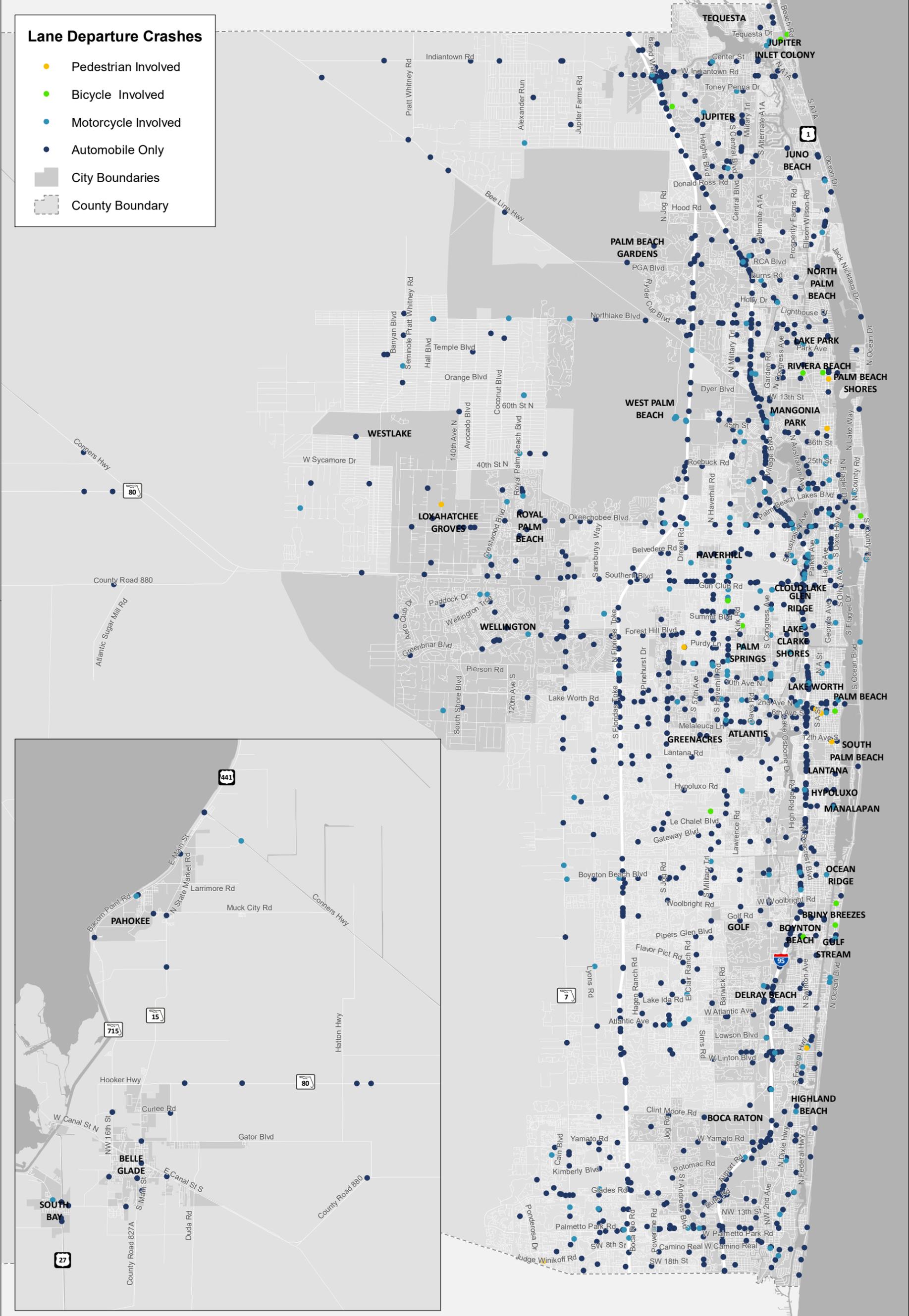
<sup>5</sup> State Safety Office, Lane Departure Crashes, <http://www.fdot.gov/Safety/SHSP2012/SHSP-LaneDepartureCrashes.shtm>

# Fatal and Serious Injury Lane-Departure Crashes, All Modes



## Lane Departure Crashes

- Pedestrian Involved
- Bicycle Involved
- Motorcycle Involved
- Automobile Only
- City Boundaries
- County Boundary





## Driver Behavior

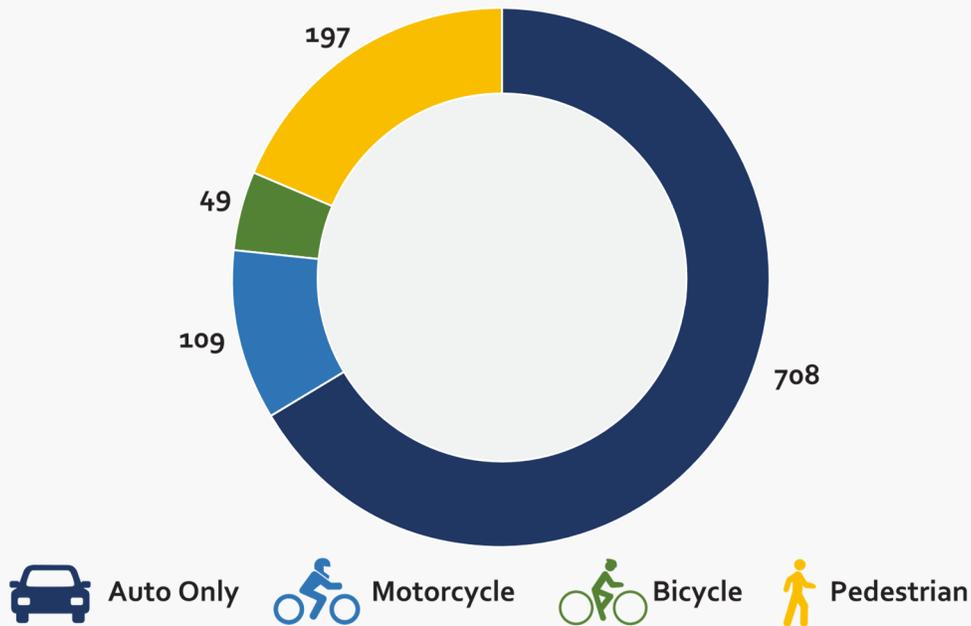
Nationally, driver behavior-related crashes are more difficult to document than those linked to physical conditions. As a result, they are often underreported. In Palm Beach County, this is also true for speeding-related crashes and distracted and aggressive driving-related crashes.

### Impaired Driving

Palm Beach County currently ranks 7<sup>th</sup> (top 25%) in Florida for impaired driving-related fatalities and serious injuries. Impaired driving accounted for 16% of all fatal and serious injury crashes in the county.

#### IMPAIRED DRIVER-RELATED FATAL & SERIOUS INJURY CRASHES

Source: 2011-2017 CARS





## Speeding and Aggressive Driving

Speeding and aggressive driving in Palm Beach County ranks 3<sup>rd</sup> in Florida for this crash category compared to peer population counties (200,000 people and over).<sup>6</sup>

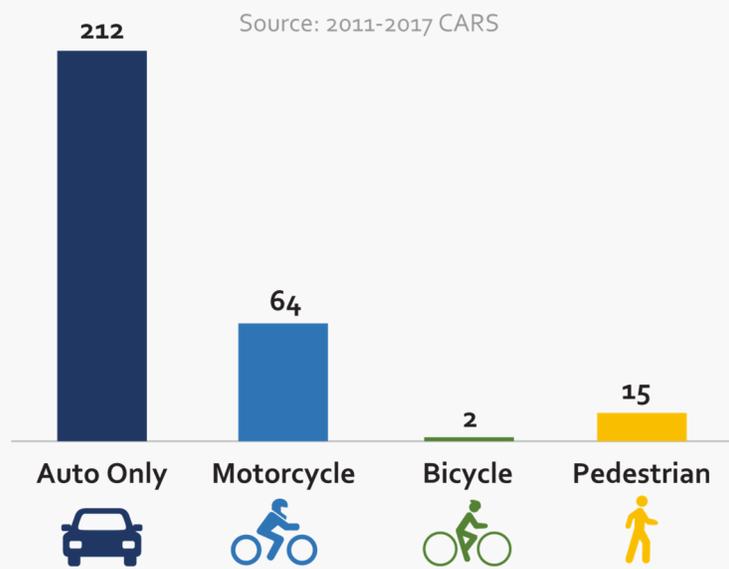
Based on responding officer responses recorded on crash report forms, 4% of all fatal and serious injury crashes were attributed to speeding. Of these crashes:

- 72% were auto
- 22% involved motorcyclists
- 5% involved pedestrians
- The largest proportion of speeding related crashes occurred on roads with speed limits of 35 mph (27 % and 42 % at 35 mph and less)

Drivers under 20 years old were overrepresented in speeding-related fatal and serious injury crashes

- Auto – 17%
- Motorcycle – 16%
- Pedestrian – 20%

### SPEEDING-RELATED FATAL & SERIOUS INJURY CRASHES



<sup>6</sup> FDOT Safety Office, 2019 Highway Safety Matrix, <http://www.fdot.gov/safety/3-Grants/2019Matrix/FY2019CountyMatrix.pdf>



More than 10,000 people lose their lives each year in speeding-related crashes, accounting for one third of all traffic crashes across the United States.

Vision Zero Network

The crash data regarding aggressive driving is limited; however, red light running is an example of aggressive driving and it contributed to 6% of fatal and serious injury crashes in Palm Beach County. Additionally, 1.5% of fatal and serious injury crashes were due to running stop signs. While enforcement plays a key role in managing vehicular speeds and aggressive driving, a multi-faceted strategy that includes enforcement, education, and design should be implemented to address speeding and aggressive driving.

### WHAT IS AGGRESSIVE DRIVING?

The National Highway Traffic Safety Administration (NHTSA) defines aggressive driving as, "when individuals commit a combination of moving traffic offenses so as to endanger other persons or property." Aggressive driving occurs when a driver has committed two or more of the following actions: speeding, failure to yield right-of-way, improper or unsafe lane changes, improper passing, following too closely, or failure to obey traffic control devices (stop signs, yield signs, traffic signals, railroad grade cross signals, etc.).

### Distracted Driving

National statistics show that on average, nine people are killed every day in the United States due to distracted driving; however, distracted driving is underreported because it is challenging for law enforcement to observe, and the same is true for Palm Beach County. While over 84% of people recognize the danger of using cell phones while driving, over a third admitted to texting while driving. Teenagers make up an estimated half of all distracted drivers.<sup>7</sup> Improved data collection and strategies should include targeted education as well as policy changes. Effective roadway design and operation practices such as rumble strips and stripes and flashing beacons with warning signs can be implemented to mitigate lane departures, speeding, and other symptoms of distracted driving.



<sup>7</sup> AAA Foundation for Traffic Safety

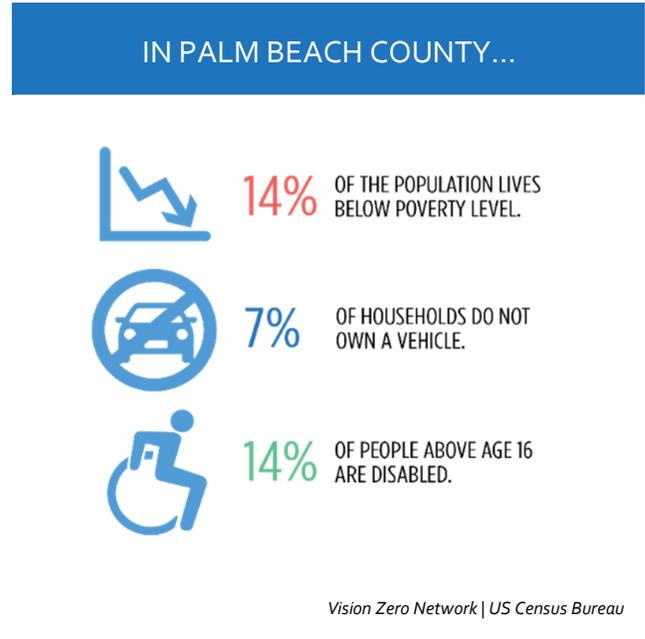
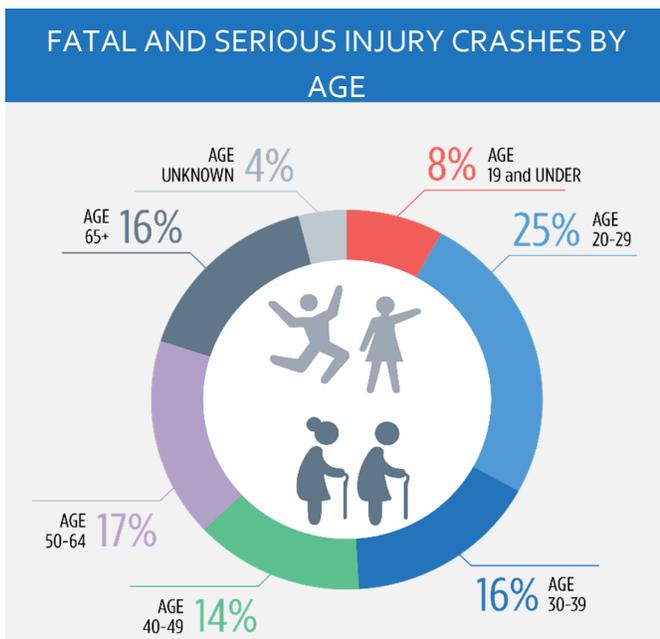


## Equity

National statistics have shown that a disproportionate share of traffic-related deaths impact low-income and minority people and neighborhoods (also referred to as traditionally underserved communities/population). For example, pedestrian deaths are twice as high in low-income neighborhoods<sup>8</sup> and African Americans are twice as likely as others to get killed while walking and Latinos are 40% more likely.<sup>9</sup>

Some examples of this trend occurring in Palm Beach County are evident for the communities of Riviera Beach and Belle Glade. This National trend is also shown for the aging population of Palm Beach County. Where 16% of the County's population is 65 or older they were disproportionately involved in 19% of all bicycle and 23% of all auto fatal and serious injury crashes.

Consistent with the TPA's mission to collaboratively plan, prioritize, and fund the transportation system, each Action resulting from this plan must consider all users. By engaging the traditionally underserved communities in a meaningful way, as outlined in the TPA's Public Participation Plan, adequate transportation facilities will be provided for all users.



<sup>8</sup> StreetsBlog USA, <https://usa.streetsblog.org/2014/08/05/study-people-in-low-income-areas-more-likely-to-be-killed-while-walking/>

<sup>9</sup> Smart Growth America



## ACTIONS - WELL-INFORMED AND DATA DRIVEN

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Vision Zero promotes a culture of safety that prioritizes human life and wellness for all people, regardless of mode and is grounded in six key principals.

- Traffic–related deaths and serious injuries are preventable and unacceptable.
- Human life takes priority over mobility.
- Human error is inevitable, so the transportation system should allow for it to happen without death or serious injury.
- A systems-level approach to safety should be adopted to effect change.
- Safe human behaviors, education, and enforcement are essential contributors to a safe system.
- High speed is a primary cause of traffic death and serious injury; it should be managed with sensitivity to vulnerable road users.

A multi-disciplinary approach involving policy, funding and culture can move the TPA toward zero fatalities and serious injuries by addressing the following key crash trends.

**Arterials** – Arterial roadways accounted for between 31% and 43% of all crashes by each mode. On arterials, intersection and non-intersection crashes were split approximately evenly for each mode, with the exception of pedestrian-involved crashes, which occurred predominantly at non-intersections (69%).

**Dark Unlit and Lighted Conditions** – Crash analysis suggests that high crash locations with an increased frequency of dark-unlit crashes are areas where improved lighting conditions could have a significant impact. The high number of crashes occurring under dark-lighted conditions suggests that lighting guidelines may need to be further investigated to ensure that lit areas have sufficient lighting coverage.

**Driver Behavior** – While driver behavior relating to the cause of a crash can be difficult to quantify, the crash analysis identified several behavior-related issues. Drug or alcohol involved crashes accounted for 16% of fatal and serious injury crashes. Speeding was the primary contributing factor in 4% of crashes, predominantly occurring on roads with posted speed limits of 35 mph or less. Younger drivers were also overrepresented in speeding-related crashes.

**Vulnerable Road Users** – Vulnerable road users, both by mode and age, were disproportionately represented in fatal and serious injury crashes. Motorcyclists, bicyclists, and pedestrians account for less than 3% of the mode share, but over 30% of the fatal and serious injury crashes.



The actions presented in this plan are based on national best practices gleaned from cities that have implemented Vision Zero initiatives and regional strategic safety plans and tailored specifically to the Palm Beach TPA in direct response to the fatal and serious injury crash data. Action items are categorized under the following themes:

**Policy:** Adopting a data-driven approach is the crux of establishing a successful Vision Zero action plan and sharing that data sends powerful messages to politicians, stakeholders, and the public to influence policy changes.

**Funding:** The current funding programs administered by the TPA for various projects annually can be revised to reflect the findings of the Vision Zero Action Plan and implement action items and needed infrastructure improvements to ensure safety for all users. Opportunities will exist to obtain additional funding and assist other agencies in obtaining safety funding. These activities work together with the Transportation Plan, the TIP and other TPA plans and programs to provide a complete transportation system for all users.

**Culture:** Inducing a cultural shift towards safer streets includes establishing ongoing and improved data collection and reporting, prioritizing vulnerable road users, and institutionalizing Vision Zero principles. Addressing these issues requires a strong coalition of stakeholders. Through its public outreach efforts, the TPA already has a venue to provide information on the Vision Zero goals and elements to local communities, homeowner associations, community events and the general public.

Through the Action Items and Performance Measures identified in the following tables, the TPA can take the lead and foster development and implementation of Vision Zero efforts in Palm Beach County and Southeast Florida.



## Policy Related Actions

Priority	Action	Measure	Target
1	Adopt Vision Zero Resolution affirming commitment and endorsing the Vision Zero Action Plan.	Resolution	March 21, 2019
2	Produce annual vision zero report to track progress and update actions.	Report	Annually
3	<p>Advocate for change to state law:</p> <ul style="list-style-type: none"> <li>a) Require knowledge of pedestrian, bicycle and motorcycle laws to obtain driver's license and renew every 5 years.</li> <li>b) Regulate distracted driving as primary offense.</li> <li>c) Regulate failure to obey crossing guard as moving violation</li> <li>d) Allow automated speed enforcement/citations.</li> <li>e) Require helmets for all bicyclists and motorcyclists.</li> <li>f) Require a state-issued license to ride bicycle on public roadways-renew every 3 years.</li> </ul>	Signed Law(s)	2022
4	<p>Work with School District of Palm Beach County to require:</p> <ul style="list-style-type: none"> <li>a) Safe walking and biking curriculum annually in Elementary Schools</li> <li>b) Driver Education Curriculum in High School</li> </ul>	New Regulations	2020
5	<p>Propose revisions to Florida Design Manual and Florida Greenbook:</p> <ul style="list-style-type: none"> <li>a) Require setting a target speed based on context classification, not existing speeds.</li> <li>b) Require local roadway design based on context classification;</li> <li>c) Clarify where separated bike lanes are permitted and how to design them.</li> <li>d) Revise thresholds for pedestrian crossing treatments at mid-block and unsignalized locations.</li> </ul>	Modified Standards	2020
6	Review state, county and city roadway lighting policies and recommend modifications to enhance safety for all users.	Lighting Recommendations	2020
7	Assist cities to establish Enhanced Penalty Zones at speeding-related crash locations pursuant to s. 316.1893, F.S.	Cities Assisted	2 per year
8	Research options to conduct historic and predictive safety analysis as a means to evaluate current and future projects.	Safety Analysis Methodology	Project Based
9	Perform historic and predictive crash analysis during PDE/PE phases for all new TPA LRTP Cost Feasible projects (SIS, Turnpike, and TPA Priority Projects).	Safety Analysis Completed	Project Based



## Funding Related Actions

Priority	Action	Measure	Target
1A	Establish a safety priority list for projects to be funded with Federal Highway Safety Program funds.	New Priority List	Annually
1B	Conduct Highway Safety Plan workshop to assist locals with identification and evaluation of projects eligible for Federal FSP funds.	Workshop Completed	Annually
2A	Fund roadway and/or pedestrian scale lighting, with an emphasis on high crash dark/unlit locations.	Points for Lighting on TPA Scoring	2020
2B	Conduct planning-level lighting analysis on high crash dark/unlit locations.	Planning Analysis Completed	5 per year
2C	Implement audible pedestrian devices in high activity locations.	Audible Pedestrian Devices Installed	5 per year
2D	Implement countdown to walk indicators at high ped crash corridors.	Countdown Indicators Installed	5 per year
2E	Investigate bicycle detection at signals along high bicycle crash locations.	Analysis Completed	2021
2F	Investigate pedestrian detection in crosswalks.	Analysis Completed	2021
3	Share vision zero/safety funding opportunities via TPA website and newsletter, including High Visibility Enforcement Funding.	Newsletter Content	On-going
4	Work with PBC to implement Right Turn on Red Prohibitions at high right-turn crash locations.	Intersections with Prohibitions	5 per year
5	Work with PBC to implement Flashing Yellow Arrow Turn Signals or Protected-only Left-Turns at high left-turn crash locations.	Intersections Improved	5 per year
6	Create standard template to conduct before/after studies for TPA funded projects.	Template Created	2020
7	Conduct before/after study of two TPA funded projects.	Two Studies Completed	2021
8	Collect ped/bike activity data in high ped/bike crash locations, including pedestrian calls from Palm Beach County and Boca Raton signals.	Weekly Counts	20 locations per year
9	Formalize process to integrate pedestrian and bicycle counts into FDOT count website.	Process Formalized	2020
10	Work with FDOT to find quick response (ie. 2 years) for easily implementable federal/state funded safety projects.	Expedited Safety Project Process	2021
11	Evaluate newly programmed resurfacing projects annually for Complete Streets and other safety opportunities.	Projects Enhanced with Complete Streets Elements	3 per year
12	Improve visibility of traffic control devices (e.g. retroreflectivity of signs, larger sign sizes/fonts, reflective pavement markers, lighting).	Improved Traffic Control Devices	10 per year



## Cultural Related Actions

Priority	Action	Measure	Target
1	Create interactive map to share vision zero content and solicit safety concerns.	Online Map	2020
1B	Identify metric to identify high crash locations by crash type with corresponding action items to focus limited investment dollars.	Metric Identified	Annually
2	Encourage County and Cities to adopt Vision Zero.	Vision Zero Adoptions	5 per year
3	Create "Pledge to Slow Down" and obtain constituent signatures..	50,000 Signatures	2020
4	Host Vision Zero Workshop for TPA Elected Officials, Stakeholders and Staff	Workshop	1 per year
5	Conduct Peer Exchange Event for TPA staff and other Vision Zero MPO(s).	Peer Event	1 per year
6	Distribute content from Safe Mobility for Life at high elderly crash locations.	Content Distributed	Annually
7	Distribute content from Florida Motorcycle Safety Coalition at high motorcycle crash locations.	Content Distributed	Annually
8	Establish MPOAC membership on the Florida Pedestrian and Bicycle Safety Coalition to improve coordination between FDOT and MPOs.	MPOAC Member assigned	2021
9A	Establish MPOAC membership on the Florida Traffic Records Coordinating Committee (TRCC) to improve traffic and crash data collection, reporting, and decision-making.	MPOAC Member Assigned	2021
9B	Collaborate with partners to create greater consistency between multiple crash databases, including those owned by PBC, Signal 4, FDOT, and DHSMV.	Streamlined Data Base	2021
10	Support Vision Zero Day in Florida with West Palm Beach, Fort Lauderdale, and Orlando.	Vision Zero Day Supported	Annually

# APPENDIX A

## Methodology



## METHODOLOGY

### Crash Data Collection

The methodology for the analysis performed in support of the Palm Beach Vision Zero Action Plan centers on two primary tasks: historical crash analysis and priority location identification. Both tasks utilized crash data extracted from FDOT’s Crash Analysis Reporting System (CARS). Two crash database files were extracted from the CARS system, a crash level extract containing one row per crash and a non-motorist extract containing one row for each non-motorist involved in a crash. Both files were extracted for all of Palm Beach County for the years 2011 through 2017.

### Building the Palm Beach County Vision Zero Crash Database

For the purposes of this plan, crashes including a highest-recorded severity of serious injury or fatality were identified for use in this analysis. The crash level CARS system extract file is filtered to include only crashes with a serious injury or fatality (excluding non-traffic fatalities). In the CARS system extract, these crashes are identified using the field “ACCISEV” with values of four and five for incapacitating injury crashes (serious injury crashes) and fatal crashes. The complete list of possible codes for this field are shown in Figure 1.

**Figure 1. Crash Severity Field Codes.**

Injury Severity (INJ)	
<b>1</b>	None
<b>2</b>	Possible
<b>3</b>	Non-Incapacitating
<b>4</b>	Incapacitating
<b>5</b>	Fatal (within 30 days)
<b>6</b>	Non-Traffic Fatality

With the subset of serious injury and fatal crashes identified, the non-motorist CARS system extract file was used to identify which crashes were bicycle- or pedestrian-involved. In the non-motorist CARS system extract file, the variable field “NON\_MOTR\_TYP\_CD” was used, identifying pedestrians given a value of one or two and bicyclists given a value of three or four. The complete list of possible codes for this field are shown in Figure 2. The crash level extract file contains a unique crash number for each crash (each row of the dataset), which is used to link to the non-motorist extract file and identify which crashes involved pedestrians or bicyclists by adding columns to the filtered crash level extract file.

**Figure 2. Non-Motorist Description Codes.**



Non-Motorist Description	
<b>1</b> Pedestrian	<b>5</b> Occupant of Vehicle Not in Transport (parked, etc.)
<b>2</b> Other Pedestrian (Wheelchair, Person in a Building, Skater, Pedestrian Conveyance, etc.)	<b>6</b> Occupant of Non-Motor Vehicle Transportation Device
<b>3</b> Bicyclist	<b>7</b> Unknown Type of Motorist
<b>4</b> Other Cyclist	<b>8</b> Unknown Type of Non-Motorist

In addition to pedestrian and bicycle crashes, motorcycle-involved crashes were also evaluated in the analysis. Motorcycle crashes are identified using the vehicle body type data attribute. This attribute is found in the crash level dataset under the columns labeled "V1\_VHCL\_BDY\_TYP\_CD" and "V2\_VHCL\_BDY\_TYP\_CD" for vehicles one and two, respectively. Using this element, a code of 11 indicates that the given vehicle is a motorcycle. The complete list of possible codes for this field is displayed in Figure 3. All remaining crashes that were not identified as pedestrian, bicycle, or motorcycle crashes were categorized as automobile crashes.

Figure 3. Vehicle Body Type Codes.

Vehicle Body Type	
<b>1</b> Passenger Car	<b>15</b> Low Speed Vehicle
<b>2</b> Passenger Van	<b>16</b> (Sport) Utility Vehicle
<b>3</b> Pickup	<b>17</b> Cargo Van (10,000 lbs* or less)
<b>7</b> Motor Home	<b>18</b> Motor Coach
<b>8</b> Bus	<b>19</b> Other Light Trucks (10,000 lbs* or less)
<b>11</b> Motorcycle	<b>20</b> Medium/Heavy Trucks (more than 10,000 lbs*)
<b>12</b> Moped	<b>21</b> Farm Labor Vehicle
<b>13</b> All-Terrain Vehicle (ATV)	<b>77</b> Other, Explain in Narrative
	<b>88</b> Unknown

\*4,536 kg



## Data Analysis Methodology

In order to analyze and summarize the status and trends of serious injury and fatal crashes, several variables and crash attributes are selected for analysis. These crash characteristics are analyzed by mode (pedestrian, bicycle, motorcycle, automobile) and for all crashes. The selected crash attributes include the following elements: traffic control device (intersection or not), driver’s action at the time of crash, vehicle maneuver at the time of crash, lighting conditions, road surface conditions, weather conditions, lane-departure crashes, functional classification, alcohol and/or drug involved crashes, and posted speed limit. The variables associated with each of these attributes are their associated names, codes, and descriptions within the dataset are discussed in this section.

In order to determine if the crash was located at an intersection or a non-intersection location, the “Type of Intersection” attribute was used. This attribute is found in the dataset in the column labeled “INT\_TYP\_CD” and is used by the reporting officer to identify the type of intersection where the crash occurred. The complete list of possible values for this field is provided in Figure 4.

**Figure 4. Type of Intersection Codes.**

Type of Intersection	
<b>1</b>	Not at Intersection
<b>2</b>	Four-Way Intersection
<b>3</b>	T-Intersection
<b>4</b>	Y-Intersection
<b>5</b>	Traffic Circle
<b>6</b>	Roundabout
<b>7</b>	Five-Point or More
<b>77</b>	Other, Explain in Narrative

The driver action of vehicle 1 at the time of the crash identifies the first action by the driver that may have contributed to the crash. This data element is based on the judgement of the officer investigating the traffic crash. In the crash dataset, this attribute is identified in the column titled “V1\_FRST\_DR\_ACTN.” The complete list of available values for this field is provided in Figure 5. For analysis regarding speeding-related crashes, driver action codes of 12 and 17 were used to identify crashes determined to be speeding-related.

The vehicle maneuver of vehicle one at the time of the crash identifies the controlled maneuver for vehicle 1 prior to the beginning of the sequence of events involved in the crash. In the crash dataset, this attribute is identified in the column titled “V1\_VHCL\_MOVE\_CD.” The complete list of available values for this field is provided in Figure 6.



Figure 5. Drivers Actions Codes.

Driver's Actions At Time of Crash			
<b>1</b>	No Contributing Action	<b>17</b>	Exceeded Posted Speed
<b>2</b>	Operated MV in Careless, Negligent Manner	<b>21</b>	Wrong Side or Wrong Way
<b>3</b>	Failed to Yield Right-of-Way	<b>25</b>	Failed to Keep in Proper Lane
<b>4</b>	Improper Backing	<b>26</b>	Ran Off Roadway
<b>6</b>	Improper Turn	<b>27</b>	Disregarded Other Traffic Sign
<b>10</b>	Followed Too Closely	<b>28</b>	Disregarded Other Road Markings
<b>11</b>	Ran Red Light	<b>29</b>	Over-Correcting/Over-Steering
<b>12</b>	Drove Too Fast for Conditions	<b>30</b>	Swerved or Avoided due to Wind, Slippery Surface, MV, Object, Non-Motorist in Roadway, etc.
<b>13</b>	Ran Stop Sign	<b>31</b>	Operated MV in Erratic, Reckless or Aggressive Manner
<b>15</b>	Improper Passing	<b>77</b>	Other Contributing Action

Figure 6. Vehicle Maneuver Codes.

Vehicle Maneuver Action			
<b>1</b>	Straight Ahead	<b>13</b>	Stopped in Traffic
<b>3</b>	Turning Left	<b>14</b>	Slowing
<b>4</b>	Backing	<b>15</b>	Negotiating a Curve
<b>5</b>	Turning Right	<b>16</b>	Leaving Traffic Lane
<b>6</b>	Changing Lanes	<b>17</b>	Entering Traffic Lane
<b>8</b>	Parked	<b>77</b>	Other, Explain in Narrative
<b>10</b>	Making U-Turn	<b>88</b>	Unknown
<b>11</b>	Overtaking Passing		



The lighting condition classification is used to determine the daylight presence and street lighting presence at the time of the crash. In the crash dataset, this attribute is identified in the column titled "LGHT\_COND\_CD." The complete list of available values for this field is provided in Figure 7.

**Figure 7. Lighting Condition Codes.**

Lighting Condition	
<b>1</b>	Daylight
<b>2</b>	Dusk
<b>3</b>	Dawn
<b>4</b>	Dark-Lighted
<b>5</b>	Dark—Not Lighted
<b>6</b>	Dark—Unknown Lighting
<b>77</b>	Other, Explain in Narrative
<b>88</b>	Unknown

The road surface condition classification is used to determine the surface condition of the street at the time of the crash. In the crash dataset, this attribute is identified in the column titled "RD\_SRFC\_COND\_CD." The complete list of available values for this field is provided in Figure 8.

**Figure 8. Road Surface Condition Codes.**

Road Surface Condition	
<b>1</b>	Dry
<b>2</b>	Wet
<b>4</b>	Ice/Frost
<b>5</b>	Oil
<b>6</b>	Mud, Dirt, Gravel
<b>7</b>	Sand
<b>8</b>	Water
<b>77</b>	Other, Explain in Narrative
<b>88</b>	Unknown

The weather condition classification is used to determine the presence and type of precipitation or other weather-related conditions at the time of the crash. In the crash dataset, this attribute is identified in the column titled "EVNT\_WTHR\_COND\_CD." The complete list of available values for this field is provided in Figure 9.



**Figure 9. Weather Condition Codes.**

Weather Condition	
<b>1</b>	Clear
<b>2</b>	Clouds
<b>3</b>	Rain
<b>4</b>	Fog, Smog, Smoke
<b>5</b>	Sleet, Hail, Freezing Rain
<b>6</b>	Blowing Sand, Soil, Dirt
<b>7</b>	Severe Crosswinds
<b>77</b>	Other, Explain in Narrative

Lane departure crashes are identified using a combination of the first harmful event data element, identified in the crash dataset by the column labeled "FRST\_HARM\_EVNT," and the manner of collision/impact data element, identified in the crash data set by the column labeled "IMPCT\_TYP\_CD." The first harmful event describes the first injury or damage causing event that characterizes the crash type. The manner of collision/impact variable identifies the manner in which two vehicles first make contact in a crash. Lane departure crashes are identified as run-off-the-road crashes and multi-vehicle crashes that are sideswipe (same or opposite direction) or head-on. Run-off-the-road crashes are identified as crashes with a manner of collision/impact type that is coded as a collision with a fixed object (codes 19 through 39). Multi-vehicle sideswipe and head-on crashes are identified as crashes with a first harmful event recorded as a collision with a motor vehicle in transport (code 14) and a manner of collision/impact of front to front, sideswipe same direction, or sideswipe opposite direction (codes 2, 4, and 5, respectively). Complete lists of the available codes for the first harmful event and manner of collision/impact data elements are provided in Figure 10 and Figure 11.

**Figure 10. First Harmful Event Codes.**

First Harmful Event	
Non-Collision	
<b>1</b>	Overturn/Rollover
<b>2</b>	Fire/Explosion
<b>3</b>	Immersion
<b>4</b>	Jackknife
<b>5</b>	Cargo/Equipment Loss or Shift
<b>6</b>	Fell/Jumped from Motor Vehicle
<b>7</b>	Thrown or Falling Object
<b>8</b>	Ran into Water/Canal
<b>9</b>	Other Non-Collision



First Harmful Event

Collision—Non-Fixed Object

<b>10</b>	Pedestrian	<b>15</b>	Parked Motor Vehicle
<b>11</b>	Pedalcycle	<b>16</b>	Work Zone/Maintenance
<b>12</b>	Railway Vehicle (Train, Engine)	<b>17</b>	Struck by Falling, Shifting Cargo
<b>13</b>	Animal	<b>18</b>	Other Non-Fixed Object
<b>14</b>	Motor Vehicle in Transport		

Collision—Fixed Object

<b>19</b>	Impact Attenuator/Crash Cushion	<b>30</b>	Concrete Traffic Barrier
<b>20</b>	Bridge Overhead Structure	<b>31</b>	Other Traffic Barrier
<b>21</b>	Bridge Pier or Support	<b>32</b>	Tree (standing)
<b>22</b>	Bridge Rail	<b>33</b>	Utility Pole/Light Support
<b>23</b>	Culvert	<b>34</b>	Traffic Sign Support
<b>24</b>	Curb	<b>35</b>	Traffic Signal Support
<b>25</b>	Ditch	<b>36</b>	Other Post, Pole or Support
<b>26</b>	Embankment	<b>37</b>	Fence
<b>27</b>	Guardrail Face	<b>38</b>	Mailbox
<b>28</b>	Guardrail End	<b>39</b>	Other Fixed Object (Wall, Building, Tunnel, etc.)
<b>29</b>	Cable Barrier		



**Figure 11. Manner of Collision/Impact Codes.**

Manner of Collision/Impact	
<b>1</b>	Front to Rear
<b>2</b>	Front to Front
<b>3</b>	Angle
<b>4</b>	Sideswipe, Same Direction
<b>5</b>	Sideswipe, Opposite Direction
<b>6</b>	Rear to Side
<b>7</b>	Rear to Rear
<b>77</b>	Other, Explain in Narrative
<b>88</b>	Unknown

Alcohol and drug involved crashes are identified using the field labeled “ALCINVCD” in the crash dataset. This data element identifies if the crash has been indicated by the investigating officer to involve alcohol, drugs, or both. Coded values of one (alcohol), two (drugs), and three (alcohol and drugs) are used to identify alcohol and/or drug related crashes for this analysis.

The posted speed limit for each crash is identified using the dataset column labeled “MAXSPEED.” This variable is added information provided by FDOT in the CARS system, rather than provided by the investigating officer at the time of the crash.

# APPENDIX B

## High Crash Locations



## Auto High Crash Locations

Location	City	Fatal & Serious Injury Crashes
Glades Rd at I-95, between Executive Center Dr & Airport Rd/NW 15 Ave	Boca Raton	33
Palmetto Park Rd at Powerline Rd	Boca Raton	28
PGA Blvd at I-95	Palm Beach Gardens	28
Palmetto Park Rd at I-95	Boca Raton	26
Belvedere Rd at I-95, from Interchange to Parker Ave	West Palm Beach	24
Yamato Rd at I-95	Boca Raton	23
Boynton Beach Blvd at I-95, from Industrial Ave to Interchange	Boynton Beach	23
45th St at I-95, from Interchange to Congress Ave	West Palm Beach	23
Forest Hill Blvd at SR 7, from Wellington's Edge Dr/Hunter Dr to SR 7	Wellington	22
Palm Beach Lakes Blvd at I-95, from Interchange to Congress Ave	West Palm Beach	22
10th Ave N at I-95	Lake Worth	20
Glades Rd from Boca Rio Rd to the Turnpike	Unincorporated (west of Boca Raton)	18
Lantana Rd at I-95	Lantana	17
Lantana Rd at I-95	Lantana	17
Congress Ave between Melaleuca Ave to 6th Ave S	Unincorporated	17
Forest Hill Blvd at I-95	West Palm Beach	16
45th St at I-95, from Interchange to Congress Ave	West Palm Beach	15
Powerline Rd at SW 18th St	Unincorporated (west of Boca Raton)	14
Jog Rd at Lake Ida Rd	Unincorporated	11



## Motorcycle High Crash Locations

Location	City	Fatal & Serious Injury Crashes
45th St from Jog Rd to Haverhill Rd	West Palm Beach	7
Hypoluxo Rd at I-95	Lake Worth	5
S 6th Ave at I-95; A St at Lake Worth Ave/Lake Ave; B St at Lake Ave; Erie St at Lake Osborne Dr	Lake Worth	5
Boca Rio Rd at Palmetto Park Rd	Unincorporated (West of Boca Raton)	5
Okeechobee Blvd at I-95	West Palm Beach	5
Boynton Beach Blvd at I-95, from Industrial Ave to Interchange	Boynton Beach	4
Dixie Hwy from 7th Ave S to 5th Ave S; 6th Ave S at S H St; 7th Ave S at S J St	Lake Worth	4
Northlake Blvd at I-95, between Dania Dr and Interchange	Palm Beach Gardens	4
10th Ave N between Congress Ave and Palm Dr	Palm Springs	4
Belvedere Rd at I-95	West Palm Beach	4
Dixie Hwy from Alhambra Pl to Forest Hill Blvd; US 1/S Olive Ave at Maddock St/Beverly Rd	West Palm Beach	4
Belvedere Rd from Clubhouse Dr to N Australian Ave	West Palm Beach/ Unincorporated (near W Palm Beach Airport)	4
W Linton Blvd at Catherine Dr	Delray Beach	3



## Bicycle High Crash Locations

Location	City	Fatal & Serious Injury Crashes
Linton Blvd from Dixie Hwy to Intracoastal Waterway US 1/Federal Hwy from Linton Blvd to Banyan Tree Lane	Delray Beach	5
6th Ave S from S E St to East Coast St 10th Ave S from S C St to S F ST S Dixie Hwy at S 8 Ave	Lake Worth	5
Lake Worth Rd from Gulfstream Rd to Congress Ave	Palm Springs	5
Lantana Rd at I-95	Unincorporated	5
S Main St between S F St and S G St	Belle Glade	3
US1/Federal Highway between NW 14th Terrace and NE 28th St	Boca Raton	3
Atlantic Ave from NW 5th Ave to Swinton Ave SW 2nd Ave at SW 2nd St SW 2nd St at Swinton Ave	Delray Beach	3
Forest Hill Blvd at Jog Rd	Greenacres	3
Lake Worth Rd at Sherwood Forest Blvd	Greenacres	3
W Indiantown Rd from Center St to Maplewood Dr	Jupiter	3
W Indiantown Rd from S Pennock Ln to Philadelphia Dr	Jupiter	3
Lucerne Ave from Dixie Hwy to Federal Hwy	Lake Worth	3
Broadway Ave at W Blue Heron Rd	Riviera Beach	3
Boynton Beach Blvd at Lyons Rd	Unincorporated	3
Lake Worth Rd from Kirk Rd to Olsson Terrace	Unincorporated (near Palm Springs)	3
Palmetto Park Rd at Powerline Rd	Unincorporated (west of Boca Raton)	3
Forest Hill Blvd at SR 7, from Wellington's Edge Dr/Hunter Dr to SR 7	Wellington	3
Palm Beach Lakes Blvd from Carver Ave to Sapdilla Ave Tamarind Ave from 10th to 14th St	West Palm Beach	3



## Pedestrian High Crash Locations

Location	City	Fatal & Serious Injury Crashes
W Indiantown Rd from Hepburn Ave to Alt A1A	Jupiter	9
Broadway Ave from 42nd St to 48th St	West Palm Beach	8
Southern Blvd at Parker Ave Parker Ave at Briggs Rd Briggs Rd at Georgia Ave Nottingham Blvd at Parker Ave Lake Ave at Conniston Rd	West Palm Beach	7
Military Trail from Lake Worth Rd to Todd St	Greenacres	6
Military Trail from Okeechobee Blvd to Elmhurst Rd Okeechobee Blvd from Military Trail to Biscayne Blvd	Unincorporated	6
Dixie Hwy from Alhambra Place to Forest Hill Blvd	West Palm Beach	6
Linton Blvd between Congress Ave & Dixie Hwy	Delray Beach	5
10th Ave N between Henthorne Dr and Congress Ave	Palm Springs	5
Lake Worth Rd at Davis Rd Lake Worth Rd at Congress Ave 2nd Ave at Miller 2nd Ave at Davis Gulfstream at Lake Worth Rd	Palm Springs	5
10th Ave N from Lynwood Dr to Boutwell Rd	Unincorporated	5
Lantana Rd at Military Trail	Unincorporated	5
Okeechobee Blvd at Haverhill Rd	Unincorporated	5
Forest Hill Blvd from Jog Rd to Sherwood Forest Blvd	Unincorporated (near Greenacres)	5
Dixie Hwy from 8th St to Palm Beach Lakes Blvd Palm Beach Lakes Blvd from Madeira Ct to Dixie Hwy Federal Hwy/US 1 at 9th St	West Palm Beach	5
Military Trail from Shiloh Dr to 45th St	West Palm Beach	5
45th St from Congress Ave to Jeffrey Ave	Mangonia Park	4
Sherwood Forest Blvd from Purdy Lane to Basil Rd Purdy Lane from España Real to Sherwood Forest Blvd	Unincorporated	4
South Quadrille Blvd from Hibiscus St to Datura St Hibiscus St from S Quadrille Blvd to Dixie Hwy	West Palm Beach	4
Atlantic Ave from Palm Square to Gleason St	Delray Beach	3
W Indiantown Trail from Military Trail to Loxahatchee Dr	Jupiter	3



**PALM BEACH**  
**Transportation Planning Agency**



Palm Beach Transportation Planning Agency

# Complete Streets Recommendations Memo

2018



**Smart Growth America**  
Improving lives by improving communities



National Complete  
Streets Coalition

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## Overview: Workshop and board meeting

In March of 2018, Emiko Atherton of the National Complete Streets Coalition (NCSC), and Mike Rutkowski and Scott Lane, Complete Streets Workshop Instructors, traveled to Palm Beach, Florida for two days to deliver a training workshop and present at the Palm Beach Transportation Planning Agency's (TPA) board meeting.

On day one, Ms. Atherton, Mr. Lane, and Mr. Rutkowski delivered a Complete Streets workshop to a group of government employee stakeholders from the Palm Beach region. The workshop focused on the benefits of Complete Streets, best practices in developing a Complete Streets policy, Complete Streets community engagement, and the importance of the Complete Streets process approach. See Appendix A for a complete list of attendees from the workshop.

On day two, Ms. Atherton, presented to the Palm Beach TPA board. The purpose of the meeting was to educate practitioners about the benefits of Complete Streets, and share a summary from the workshop.



## Recommendations

Based on discussions at the workshop, the National Complete Streets Coalition recommends that Palm Beach TPA consider the following recommendations:

1. Develop a model Complete Streets policy for the Palm Beach region
2. Engage the 3Cs: Creative, Cost Effective, Champion
3. Educate cities on upcoming resurfacing projects
4. Endorse an alternative to the current road impact fee system

### 1. Develop a model Complete Streets policy for the Palm Beach region

NCSC recommends the Palm Beach TPA create a model local Complete Streets policy that local jurisdictions can use as template to create their own policies. This will:

- help create consistency across the region and allow Palm Beach TPA to set the tone for regional priorities;
- ease the process for jurisdictions as it will reduce the initial up-front effort needed to create and pass a policy;
- allow the TPA to develop a model policy that is relevant to the Palm Beach area and meets the ideal elements in a Complete Streets policies set by the NCSC model policy framework.

After the model is finalized, the Palm Beach TPA should work with local jurisdictions to help them adapt the model policy to their own communities' unique attributes. This is a critical step; local policies will not be successful unless they reflect local values. See Appendix B for a model local policy outline, based on NCSC's *Elements of a Complete Streets policy*, that the Palm Beach TPA should utilize to put together the model policy.<sup>1</sup>

#### 1a. Collaborate with local jurisdictions to adapt and adopt the template policy

After developing the template Complete Streets policy for the Palm Beach area, the TPA should reach out to each jurisdiction to let them know about the template policy. As part of this outreach, Palm Beach TPA should offer technical assistance to communities to help them adapt the template to their community's needs. This could take the format of mini policy development workshops, in person meetings, phone calls, or sharing resources. A list of resources addressing rural Complete Streets, and health and transportation disparities can be found in Appendix C.

During the technical assistance, NCSC recommends that the TPA cover:

1. The benefits of Complete Streets
2. How to work with developers on Complete Streets
3. How to apply Complete Streets to local, county, and state owned roads
4. Brainstorming language for their policy.

Following the technical assistance, the TPA should follow up with the jurisdictions on a monthly basis to check on the progress on their Complete Streets policy. The TPA could also provide ongoing technical assistance in the form of reviewing draft policies, and troubleshooting questions and challenges. The TPA should celebrate and publicize all jurisdictions who pass Complete Streets policies.

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<sup>1</sup><https://smartgrowthamerica.org/resources/elements-complete-streets-policy/>

## **2. Engage the 3Cs: creative, cost effective, champions**

To build support from elected officials and communities, the Palm Beach TPA should use a three-pronged approach of “creative, cost effective, and champions” to communicate the many benefits of Complete Streets and build community excitement.

### **2a. Creative**

NCSC recommends that the Palm Beach TPA encourage local jurisdictions to execute tactical urbanism or placemaking projects at their local community events. According to the Streets Plan Collaborative, tactical urbanism is an “approach to neighborhood building that uses short-term, low-cost, and scalable interventions and policies to catalyze long term change.”<sup>2</sup> These hands-on projects can help to energize residents, widen public engagement, gather data on real world usage, draw attention to perceived shortcomings, and help residents to visualize future Complete Streets projects in their community.

More specifically, the Palm Beach TPA should encourage local jurisdictions to consider entering into a public private partnership with local businesses to implement a tactical urbanism project. The local jurisdictions could lead the project and the business could pay for the materials. There have been several examples of public private partnerships focused on placemaking across the country. For example, some communities have used the “San Francisco Model” of holding placemaking events. Madison, WI, Miami, FL, and Charleston, SC used this method to organize projects that are led by public authorities or non-profits, and financed by private sponsors.<sup>3</sup> The National Complete Streets Coalition’s *Safe Streets Academy* just finished working with the cities of South Bend, Orlando, and Lexington, who completed demonstration projects for as little as \$16,000.<sup>4</sup>

### **2b. Cost Effective**

Many states and local governments with fiscal constraints have decided that Complete Streets are cost effective investments.<sup>5</sup> The Palm Beach TPA should continue to build the case for Complete Streets by:

- working with local jurisdictions to measure project performance;
- better integrating Complete Streets into the standard planning and design process; and
- implementing full cost accounting for Complete Streets projects.

### **Work with local jurisdictions to measure project performance**

Measuring performance is a lengthy topic in its own right; performance measurements can be formulated from stakeholder groups and broad public input. Examples of performance measures include, but are certainly not limited to, level of reinvestment, property valuations, retail sales, and simply the number of users, by mode of travel. A “good performance measure” relates to the project and public’s goals, has data that is accessible over time, is easy to understand (avoid indices comprised of multiple variables), and doesn’t duplicate the information contained in other variables (e.g., volume-to-capacity ratio, level-of-service, and vehicular delay are generally measuring the same circumstance).

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<sup>2</sup><http://tacticalurbanismguide.com/>

<sup>3</sup><https://issuu.com/streetplanscollaborative/docs/openstreetsproject/96>

<sup>4</sup><https://smartgrowthamerica.org/safe-streets-academy-cities-launch-demonstration-projects/>

<sup>5</sup><https://www.smartgrowthamerica.org/app/legacy/documents/cs/factsheets/cs-costs-2.pdf>

Performance measures can help decision makers “build the case and public support” for Complete Streets, even in challenging budget environments.<sup>6</sup> The Palm Beach TPA should encourage and provide support to local jurisdictions to collect before and after data on all Complete Streets projects. It is this before-and-after information that is critical to linking the project’s causal link to benefits. Some datasets, such as retail sales, are challenging to acquire in any time period; the CoStar company is an example of a private source that offers a third-party solution to some commercial data – but it is not free (note: if you have access to a friendly real estate professional that already has this information or access to a data source then it may be more cost-effective to occasionally work directly with that agent). Retail sales, price per square foot, commercial occupancies, and other data are examples of data that are available from this source.

The Palm Beach TPA could use the before and after data to develop case studies that spotlight local success stories and ultimately better communicate the impact of Complete Streets in the Palm Beach region. The National Complete Streets Coalition guide, *Evaluating Complete Streets Projects*, recommends performance measures that can be used to evaluate potential projects.<sup>7</sup> Transportation for America’s report, *Measuring What We Value*, further explains the benefits of performance-based decision-making and offers suggested performance measures and includes several case studies that highlight best practices among regional transportation agencies. A final and recent example was completed in 2018 by the Institute for Transportation Research and Education (NC State University, Raleigh, NC). The study, *Bridging the Gap*<sup>8</sup>, discusses the economic impacts of completing greenway networks in four locations around the state.

### **Better integrate Complete Streets into the standard planning and design process**

A review of the Palm Beach TPA’s 2017 Complete Streets Design Guidelines suggests that a context-based process be defined for ensuring Complete Streets implementation. That is, to ensure that Complete Streets isn’t an afterthought when planning and designing roads, the Palm Beach TPA should consider expanding their existing Complete Streets Design Guidelines to include a “step-by-step” checklist for all roadway improvement projects. One example of this is Charlotte, North Carolina’s Urban Street Design Guidelines<sup>9</sup> that includes a “six-step” process for defining context (land use and urban design characteristics) while implementing key aspects of Complete Streets principles. This example includes applying a “six-step” process, described in detail, to create a network of context-based, “complete streets”. The “six-step” process is used to select the correct street classifications, cross-sections, and design components for all street types. Applying the “six-step” process to plans, programs, and projects that will potentially change the physical features of existing streets or result in the construction of new streets is the primary goal. Implementing a process to ensure that the street classifications and designs derived through the “six-step” process result in mutually reinforcing land use and transportation decisions. The Minnesota Department of Transportation<sup>10</sup> and Philadelphia City Planning Commission<sup>11</sup> also have strong process-oriented Complete Streets checklists.

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<sup>6</sup><http://t4america.org/maps-tools/performance-measures-report/>

<sup>7</sup><https://www.smartgrowthamerica.org/app/legacy/documents/evaluating-complete-streets-projects.pdf>

<sup>8</sup><https://itre.ncsu.edu/focus/bike-ped/sup-economic-impacts/>

<sup>9</sup><http://charlottenc.gov/Transportation/PlansProjects/Documents/USDGPolicyRecommendationsOctober2607.pdf>

<sup>10</sup><https://www.dot.state.mn.us/planning/completestreets/docs/PlanningScopingWorksheetGuide.pdf>

<sup>11</sup>[http://www.philadelphiastreet.com/images/uploads/resource\\_library/Complete-Streets-Checklist-Planning.pdf](http://www.philadelphiastreet.com/images/uploads/resource_library/Complete-Streets-Checklist-Planning.pdf)

### **Implement full cost accounting for Complete Streets projects**

To address concerns about the cost of Complete Streets, Palm Beach TPA could consider implementing full cost accounting for Complete Streets projects. Full cost accounting is a method of understanding the “full cost” of a project, which includes upfront costs, costs of maintenance, and also takes into account other indirect costs like the cost to the environment or safety. Indirect costs are developed (ideally) through numerical models enhanced by ground-truthing through focus groups and case studies. These studies tend to be quite involved; there is a separate branch of National Environmental Policy Act (NEPA) related study called Indirect and Cumulative Impacts that deals specifically with this complex topic requiring multi-disciplinary study across issues relating to equity, economic impact, and environmental effects over time. Several states, including Florida and North Carolina, have developed specific guidance to deal with these issues.<sup>12</sup> When these broader and longer-term costs of projects are taken fully into account, Complete Streets projects often are less expensive than their single-purpose counterparts. Communities use full cost accounting because it addresses the “challenges of assessing build options with different start-up and operating costs over varying project lifespans.” See Appendix E for more information about full cost accounting for Complete Streets.

### **2c. Champion**

NCSC recommends the Palm Beach TPA develop more Complete Streets champions. Complete Streets champions can help advocate for safer streets, build awareness, and pass policies at the local level. Palm Beach TPA should focus their efforts on trying to develop elected officials as Complete Streets champions at the county level.

For example, when the Florida Department of Transportation began their Complete Streets efforts, the Secretary of Transportation appointed District One Billy Hattaway to lead FDOT’s efforts. Mr. Hattaway served as a statewide champion for Complete Streets and, because he was well respected within the agencies, was able to steer the DOT to building projects for all users of all abilities. The TPA could invite Mr. Hattaway, now the Director of Transportation for the City of Orlando, to speak to the TPA board and encourage them to become champions within their own communities.

### **3. Educate cities on upcoming resurfacing projects**

FDOT puts together their list of resurfacing projects three years in advance. As part of this process, FDOT asks jurisdictions and partner agencies to submit feedback on the future resurfacing projects via a Multimodal Scoping Checklist. Partner Agencies are also able to submit input through FDOT’s online electronic review comments (ERC) portal.

The Palm Beach TPA should continue to encourage County staff to follow a similarly collaborative process to incorporate stakeholder input in the scoping and construction of County resurfacing projects.

The Palm Beach TPA should take time to educate their member jurisdictions about upcoming resurfacing projects. By initiating a conversation in advance of the resurfacing, the Palm Beach TPA can assist jurisdictions with providing comments to FDOT before the design is finalized.

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<sup>12</sup>[https://environment.transportation.org/environmental\\_topics/indirect\\_effects/case\\_studies.aspx](https://environment.transportation.org/environmental_topics/indirect_effects/case_studies.aspx); [https://connect.ncdot.gov/projects/planning/Pages/Indirect\\_Cumulative\\_Effects.aspx](https://connect.ncdot.gov/projects/planning/Pages/Indirect_Cumulative_Effects.aspx)

Palm Beach TPA can also assist jurisdictions by paying for planning studies and community engagement. Community engagement is an important piece of Complete Streets because it gives locals an opportunity to share their desire for pedestrian, bicycle, and accessible facilities. A great example of this is Edgewater Drive in Orlando, FL. Their city staff presented restriping options, which would allow for bike lanes, to residents at two different public meetings. Based on the positive feedback they received, city staff moved forward with a 3-lane concept.<sup>13</sup>

#### **4. Endorse an alternative to the current road impact fee system**

Palm Beach County currently administers a countywide road impact fees system where new development in both municipal and unincorporated areas is required to pay a fee to mitigate road capacity impacts. This fee must then be used to construct roadway capacity projects. However, fewer new roads are being built and there is a clear trend in the use of discretionary funds for multimodal infrastructure. The Palm Beach TPA should encourage the County to replace the current road fee system with a mobility fee system that facilitates multimodal infrastructure projects.

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<sup>13</sup><https://www.smartgrowthamerica.org/app/legacy/documents/cs/impl/fl-orlando-edgewater.pdf>

## Summary of recommendations: developing an action plan

NCSC recommends developing a detailed action plan based on the recommendations outlined in the above sections and identify a group to oversee the implementation of the action plan.

Table 1 below summarizes action steps from the recommendations in the following sections and suggests timeframes for each action to maintain momentum from the workshop. It also suggests who should lead each action and who may be able to support implementation.

Table 1: Action Plan

Action Step	Who leads?	Who can help?
<b>Short Term (6 months)</b>		
Designate person or committee to oversee this action step table	Valerie	Nicholas
Develop a model Complete Streets policy for the Palm Beach region	Valerie	Nicholas
Share the template policy with local jurisdictions	Valerie	Nicholas
Develop Complete Streets champions in every jurisdiction	Valerie	Nicholas
Educate cities on upcoming resurfacing projects	Nicholas	Valerie, Andrew
<b>Medium Term (up to 1 year)</b>		
Endorse an alternative to the current road impact fee system	Andrew	Greg
Encourage local jurisdictions to execute placemaking projects at their local community events	Nicholas	Valerie
<b>Long Term (1-2 years)</b>		
Work with local jurisdictions to measure project performance of Complete Streets Projects	Nicholas	Andrew
Integrate Complete Streets into the standard planning and design process	Valerie	Nicholas
Implement full cost accounting for Complete Streets projects	Nicholas	Andrew

## Appendix A: Workshop Attendees

Table 2: Complete Streets Workshop Attendees

First Name	Last Name	Agency
Motasem	Al-Turk	Palm Beach County Engineering
Steven	Grant	City of Boynton Beach
Xavier	Falconi	City of Delray Beach
Heather	Tribou	City of West Palm Beach
Elizabeth	Eassa	City of Boca Raton
Terence	Davis	City of Riviera Beach
Alexander	Barr	FDOT
Khaled	Shammout	Palm Tran
Gary	Dunmyer	City of Boynton Beach
Maria	Tejera	City of Boca Raton
Jamie	Brown	City of Lake Worth
Paula	Ryan	City of West Palm Beach
Steve	Anderson	Palm Tran
Nick	Uhren	Palm Beach TPA
Fred	Pinto	City of Royal Palm Beach
Kara	Irwin-Ferris	City of Greenacres
Maher	Mansour	Palm Beach County School District
Fattoush	Jafar	Palm Beach County Engineering
David	Ricks	Palm Beach County Engineering
Jeff	Hmara	City of Royal Palm Beach
David	Wiloch	Palm Beach County
Ryan	Harding	City of Wellington
Osniel	Leon	City of Greenacres
Lina	Camacho	City of West Palm Beach
Alyssa	Frank	Palm Beach TPA
Valerie	Neilson	Palm Beach TPA
Myroslava	Skoroden	FDOT
Iramis	Cabrera	Village of Palm Springs
Thomas	Driscoll	Town of Jupiter
Maria	Marino	Palm Beach Gardens
Uyen	Dang	City of West Palm Beach
Terrence	Bailey	City of Riviera Beach
Fred	Stubbs	Palm Tran
Tamashbeen	Rahman	City of Boca Raton
Kim	Glas-Castro	Village of Palm Springs
Erik	Ferguson	City of West Palm Beach
Lauren	Rand	FDOT
Renee	Cross	Palm Beach TPA

## Appendix B: Model local policy outline

Table 3: Model policy outline for local jurisdictions

<p>1. A strong, equitable vision for how and why the community wants to complete its streets.</p>	<p>The model policy should describe the reasons why the jurisdiction might want to pursue Complete Streets, as well as the importance of creating a comprehensive transportation network.</p>
<p>2. Benefits all users equitably, particularly vulnerable users and the most underinvested and underserved communities</p>	<p>Each jurisdiction should carefully consider which groups of people are typically underserved or underinvested in their community. To identify vulnerable populations, jurisdictions could consider measuring a variety of factors including poverty levels, access to transit service, car ownership, percentage of people of color, percentage of older adults, etc.</p> <p>The model policy should state some example communities of concern and corresponding example language on how jurisdictions could prioritize them throughout the transportation planning process.</p>
<p>3. Applies to new, retrofit/reconstruction, maintenance, and ongoing projects.</p>	<p>The model policy should require all new construction, maintenance, and reconstruction/retrofit projects to account for the needs of all modes of transportation and all users on the road. The policy should also specify the need to provide accommodations for all modes of transportation to safely use the road during construction or repair work.</p>
<p>4. Makes any exceptions specific and sets a clear procedure that requires high-level approval and public notice prior to exceptions being granted.</p>	<p>The model policy should outline a limited amount of appropriate exceptions. Examples of appropriate exceptions can be seen below.</p> <ul style="list-style-type: none"> <li>• Accommodation is not necessary on corridors where specific users are prohibited, such as freeways or pedestrian malls. Exclusion of certain users on particular corridors should not exempt projects from accommodating other permitted users.</li> <li>• Cost of accommodation is excessively disproportionate to the need or probable use. The Coalition does not recommend attaching a percentage to define “excessive,” as the context for many projects will require different portions of the overall project budget to be spent on the modes and users expected. Additionally, in many instances the costs may be difficult to quantify. A percentage cap may be appropriate in unusual circumstances, such as where natural features (e.g. steep hillsides, shorelines) make it very costly or impossible to accommodate all modes.</li> </ul>

	<p>The Coalition does not believe a cap lower than 20 percent is appropriate, and any cap should always be used in an advisory rather than absolute sense.</p> <ul style="list-style-type: none"> <li>• A documented absence of current and future need.</li> <li>• Emergency repairs such as a water main leak that requires immediate, rapid response; however, temporary accommodations for all modes should still be made. Depending on severity of the repairs, opportunities to improve multimodal access should still be considered where possible.</li> <li>• Transit accommodations are not required where there is no existing or planned transit service.</li> <li>• Routine maintenance of the transportation network that does not change the roadway geometry or operations, such as mowing, sweeping, filling of potholes, and other spot repair.</li> <li>• Where a reasonable and equivalent project along the same corridor is already programmed to provide facilities exempted from the project at hand.</li> </ul> <p>There should be a clear process for granting the exceptions that requires senior management approval.</p>
<p>5. Requires interagency coordination between government departments and partner agencies on Complete Streets.</p>	<p>The model policy should require private developers to comply with the Complete Streets policy. The policy should also outline that a Complete Streets network can be achieved through interagency coordination among government agencies, like FDOT, and partner agencies, like public health departments and local governments.</p>
<p>6. Directs the use of the latest and best design criteria and guidelines and sets a time frame for their implementation.</p>	<p>The model policy should direct the adoption of the best state-of-the-practice design guidance, like the FDOT Complete Streets Manual.</p>
<p>7. Considers the surrounding community's current and expected land use and transportation needs.</p>	<p>The model policy should require new or revised land use policies, plans, or zoning ordinances to specify how transportation projects will serve current and future land use needs. It should also include language that requires the consideration of the community context as a factor in decision-making, as well as specifying the need to understand mitigate unintended consequences of projects or plans, such as involuntary displacement.</p>
<p>8. Establishes performance standards that are specific, equitable, and available to the public.</p>	<p>The model policy should establish performance measures under multiple categories such as access, economy, environment, safety, and health and equitable measures (i.e. measures that address income, race, vehicle access, and/or language) should be embedded throughout. It</p>

	<p>should also establish specific performance measures for the implementation process. Example Performance Measures can be seen in Appendix D. Although local values may not permit matching the performance measures in Palm Beach TPA’s regional policy, some consistency may be useful in ensuring consistency in project prioritization across jurisdictions. Finally the policy should set a time frame for recurring collection of the performance measures, publicly publish the measures, and assign responsibility for collection and publishing.</p>
<p>9. Provides specific criteria to encourage funding prioritization for Complete Streets implementation.</p>	<p>The model policy should outline updating project selection criteria to benefit Complete Streets implementation and project submission. Criteria for project ranking should assign weight for active transportation infrastructure, projects that serve underserved communities, alleviate disparities in geography, health, safety, and access.</p>
<p>10. Implementation Steps: Includes specific next steps for implementation of the policy.</p>	<p>Palm Beach TPA should serve as a resource for local jurisdictions as they adopt and implement their Complete Streets policies. The types of assistance Palm Beach TPA could provide are as varied as the potential elements of those policies, and their timing will be dependent on when (and how many) jurisdictions adopt Complete Streets. Assistance could be provided in the following areas:</p> <ul style="list-style-type: none"> <li>• Providing sample project checklists associated with Palm Beach TPA prioritization rubrics and design guidance</li> <li>• Conducting GIS analysis to track how selected projects support traditionally underserved populations</li> <li>• Offering objective advice on whether exceptions should be granted in difficult situations</li> <li>• Facilitating cooperation between neighboring municipalities (and possibly FDOT) where projects cross jurisdictional boundaries</li> <li>• Reviewing proposed municipal procedures, plans, regulations, and other processes prior to adoption to ensure they foster Complete Streets</li> <li>• Periodically offering training opportunities</li> </ul>

## **Appendix C: Resources addressing rural Complete Streets and disparities**

Many rural areas across the U.S. have started to pursue Complete Streets policies because they realize the positive impact Complete Streets can have on local economies, public health, and the environment. Below are a couple resources Palm Beach TPA might consider sharing.

- *Small Town and Rural Design Guide Networks*: In 2016, FHWA released their Small Town and Rural Design Guide Networks guide. This is a great resource to consider when planning and designing rural Complete Streets project. <sup>14</sup>
- *Complete Streets Work in Rural Communities*: NCSC has put together a series of fact sheets explaining the benefits of Complete Streets. <sup>15</sup> One fact sheet in particular focuses on the benefits of Complete Streets in rural areas. <sup>16</sup>
- *First & Main*: First & Main is a coalition of elected officials united to protect and improve a range of federal government programs that give local communities the resources they need to prosper. Specifically, First & Main strives to support locally-driven community revitalization, build vibrant, healthy, walkable towns, create opportunities for everyone in America's small and mid sized communities, and invest in infrastructure that creates lasting value. Palm Beach TPA might consider sharing this a resource for their local elected officials. <sup>17</sup>

Below is a series of resources that focus on how to address disparities within communities:

- *Building Healthy and Prosperous Communities: How Metro Areas are building more and better bicycling and walking projects*<sup>18</sup>: This guidebook of case studies highlights how metropolitan planning organizations have created more and better bicycling and walking projects by basing their decisions on feedback from community members, developing solutions for their diverse member jurisdictions, and providing a comprehensive suite of resources to help their members succeed.
- *Arts, Culture and Transportation: A creative placemaking field scan: "Transportation systems do not equitably serve communities of color, low-income people, and other disadvantaged communities."* This field scan explores seven challenges facing the transportation sector today, and identifies how arts and culture contribute to solutions. <sup>19</sup>
- *Every Place Counts Leadership Academy Toolkit*: Provides information and resources for community leaders who want to understand and impact the transportation decision-making process. <sup>20</sup>
- *Promoting Opportunity through Equitable Transit-Oriented Development*: This collection of case studies from Enterprise offers examples of how communities have preserved housing affordability near transportation projects. <sup>21</sup>
- *OakDOT Disadvantaged Index*: The Oakland DOT analyzed and mapped outcome disparities between different populations and created a disadvantaged index, which it used to prioritize investments within its discretionary funding programs. This landing page provides links to OakDOT's equity maps and other program maps with an equity overlay can be turned off and on. <sup>22</sup>

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<sup>14</sup> [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/small\\_towns/](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/)

<sup>15</sup> [https://smartgrowthamerica.org/resources?resource\\_type=fact-sheet&authors=&category\\_name=complete-streets&s](https://smartgrowthamerica.org/resources?resource_type=fact-sheet&authors=&category_name=complete-streets&s)

<sup>16</sup> <https://smartgrowthamerica.org/resources/complete-streets-rural-areas-and-small-towns/>

<sup>17</sup> <https://firstandmain.org/>

<sup>18</sup> <http://t4america.org/maps-tools/healthy-mpos-guidebook/>

<sup>19</sup> <http://t4america.org/maps-tools/creative-placemaking-field-scan/>

<sup>20</sup> <http://www.trb.org/AdministrationManagement/Blurbs/175453.aspx>

<sup>21</sup> <https://www.enterprisecommunity.org/download?fid=1945&nid=13975>

<sup>22</sup> [https://oakbec.s3.amazonaws.com/MapLanding/internal\\_index.html](https://oakbec.s3.amazonaws.com/MapLanding/internal_index.html)

- *Tools for Measuring Accessibility in an Equity Framework*: This SSTI paper provides a discussion of four categories of measures of equity in transportation: accessibility, affordability, health and safety, and procedural equity (equity within the transportation decision-making process). It profiles and compares a number of available strategies, tools, and measures for each of the four categories.<sup>23</sup>

## Appendix D: Example Performance Measures

Table 4: Example Complete Streets measures to consider

Complete Streets goal	Performance measures to consider
Safety for all transportation system users	<ul style="list-style-type: none"> <li>• Crashes, fatalities, and serious injuries by mode and type (counts and rates per capita or per Vehicle Mile Traveled)</li> <li>• Traveler surveys with safety ratings for different modes</li> <li>• Presence of adequate lighting</li> <li>• Number of violent and non-violent crimes</li> </ul>
Access to destinations	<ul style="list-style-type: none"> <li>• Travel times and travel time reliability (reduced non-recurring delay), measured by mode</li> <li>• Combined household expenditures on housing and transportation as a percentage of household income</li> <li>• Emergency response times</li> <li>• Transit access, measured by percent of persons living within a set distance from transit stops</li> <li>• Walk Score, Bike Score, and Transit Score</li> <li>• Sidewalk continuity</li> <li>• Bicycle facility continuity</li> <li>• Presence of pedestrian facilities in proximity to transit stops</li> <li>• Percentage of bus stops that are ADA-compliant</li> <li>• Percentage of children walking and bicycling to school</li> <li>• Number of residents using carpool and vanpool services</li> <li>• Number of residents with telecommuting options</li> </ul>
Economic competitiveness	<p>Measures of market access:</p> <ul style="list-style-type: none"> <li>• Connections between residential areas and employment opportunities</li> <li>• Access between major activity centers</li> <li>• Changes in freight tonnage</li> </ul> <p>Measures of community economic vitality:</p> <ul style="list-style-type: none"> <li>• Alignment of transportation projects with local and regional land use and economic development plans and visions</li> <li>• Level of private investment in adjacent properties</li> <li>• Changes in vacancy rates for adjacent properties</li> <li>• Changes in retail vibrancy (retail and restaurant sales, numbers of customers, etc.)</li> </ul>

<sup>23</sup> <https://www.ssti.us/wp/wp-content/uploads/2015/06/Measuring-transportation-equity.pdf>

Environmental sustainability	<p>Measures of transportation facility sustainability (outputs)</p> <ul style="list-style-type: none"> <li>• Impervious surface area</li> <li>• Presence of vegetation</li> <li>• Energy efficiency of transportation facilities</li> </ul> <p>Measures of environmental degradation or preservation (outcomes)</p> <ul style="list-style-type: none"> <li>• Air quality and emissions</li> <li>• Stormwater runoff</li> <li>• Land and habitat preservation</li> </ul>
Public health	<ul style="list-style-type: none"> <li>• Rates of active transportation (ex. walking and biking trips as a portion of total trips in a community)</li> <li>• Rates of chronic disease</li> <li>• Exposure to contaminants</li> <li>• Travel time and reliability from residential areas to health facilities</li> </ul>
Social equity	<ul style="list-style-type: none"> <li>• Access to economic opportunities and other daily needs by gender, age, income, race, ethnicity, and disability status</li> <li>• Combined household expenditures on housing and transportation as a percentage of household income by gender, age, income, race, ethnicity, and disability status</li> <li>• Relative impact of other measures by gender, age, income, race, ethnicity, and disability status</li> </ul>
Quality of life	<p>Measures of travel experience quality:</p> <ul style="list-style-type: none"> <li>• Quality of automobile trips (pavement conditions, traveler survey results, etc.)</li> <li>• Quality of the transit experience (transit LOS, frequency of service, quality of accommodations for passengers at stops, accessibility of information for passengers, etc.)</li> <li>• Quality of the bicycle environment (bicycle LOS, width of facilities, pavement condition of bicycle facilities, presence of bicycle wayfinding, etc.)</li> <li>• Quality of the pedestrian environment (pedestrian LOS, sidewalk widths, sidewalk continuity, crossing distances and times, wait times at intersections, widths of medians, etc.)</li> </ul> <p>Measures of community vibrancy:</p> <ul style="list-style-type: none"> <li>• Alignment with local and regional visions and plans</li> <li>• Support for local “place-making” efforts</li> <li>• Presence of shade, scenic views, seating, etc.</li> </ul>

## Appendix E: Full Cost Accounting for Complete Streets

When weighing different projects to undertake, it is commonplace for governments and other organizations to conduct a benefit-cost assessment (BCA), even if the benefits are perceived qualitatively and the costs only include cursory (planning-level) cost estimates for construction. More refined assessments may include maintenance costs or elements that are locally financed (e.g., matched funds) compared to those provided by an outside agency like a state department of transportation or grant program. Several issues arise as agencies attempt to refine project evaluations:

- The agency conducting the evaluation does not have access to local data for comparable unit costs of several projects on which to base costs for the proposed project(s) being evaluated;
- Cost estimates for project start-up are frequently incomplete, especially with respect to the costs associated with right-of-way acquisition, construction mobilization, or similar cost centers that are only tangentially related to time and materials (the same issue often makes project schedules unrealistically short);
- In a related issue, the costs of inflation, discounting effects, and risk are seldom represented;
- What economists call “externalities,” or costs and benefits that are indirectly related to the project, are poorly understood, have complicated synergistic effects with the proposed project, occur well after the project is completed, or have some other characteristic that make the externality hard to evaluate; or
- Near-term costs and benefits are valued disproportionately high. Longer-term costs like maintenance (or long-term benefits, like reductions in obesity-related illness expenditures or crashes) are valued more lightly – if at all. Over time, maintenance costs accumulate in a way that is unexpected, leading some facilities to be in a poor state of repair.

Even if all these issues are considered, it is the rare organization that undertakes a cross-cutting approach to evaluating projects of different types. Comparing a new police car to a new public restroom becomes impossible if decision makers are not provided with a consistent, complete foundation for comparing apples, oranges, and sewage treatment plants. None of which is to say that these decisions don’t get made anyway: they do, every budget cycle.

To respond to some of these issues, lifecycle cost analysis (LCCA) has achieved traction in sustainable communities and other places, in part due to the challenges of assessing build options with different start-up and operating costs over varying project lifespans. (An incandescent light bulb is cheaper to buy than a long-lasting LED bulb now, but not after time and purchase costs accrue to replacing the former every two years.<sup>24</sup>) Local governments are expected to be reliable, forward-looking, and transparent when evaluating projects that they will pursue with public monies under an implied mandate of public trust. Similar to the light bulb example, a complete street project may cost more to install initially and maintain but, when included as part of an overall network of healthy, livable, interlinked communities and transportation networks, returns downstream benefits that will be visible only under a robust LCCA approach. Communities that have invested heavily in pedestrian, transit, and biking infrastructure may be more likely to take a supportive approach to developing land in complementary ways, with stronger design standards, and to a greater intensity. In turn, the effects of these policies potentially lead to lower costs related to extending maintaining water, sewer, emergency response, and sanitation services to sprawling areas.

Hence, when considering a complete street project, the benefits of the project often share some of these issues – complex, synergistic effects with land policies, different beneficiaries and cost-providers, and downstream benefits like health, safety, security, and mobility choice – that aren’t immediately part of the equation. Citing long-term maintenance costs is certainly

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<sup>24</sup> Even more challenging is the situation wherein one agency or department buys and installs the bulb, and another has the responsibility of budgeting for its maintenance and replacement. Here, the benefits and the costs accrue to different agencies with different budgets. This phenomenon can happen when a local government approves a new, private housing development but another agency (e.g., county or state) must pay for increased vehicular trips that trigger a road widening much later. Seldom is the property tax revenue forecast from a proposed new development compared to the downstream costs of providing expansions of infrastructure and services, and for good reasons: it’s complicated, and at least one party perceives a disincentive to work it all out equitably.

appropriate when considering a single-purpose street construction project as opposed to upgrading to a complete, multi-modal street, but other types of long-term or inter-related costs and benefits of other alternatives should be just as clearly identified in the decision-making process as well.

### **Integrating Complete Streets with Traffic Impact Studies**

Traffic Impact Studies (TISs), also often called Traffic Impact Analyses (TIAs), have a long and useful history in the transportation planning and engineering professions. A TIS helps make the impacts of a proposed development more transparent and identifies the potential mitigation strategies that can be undertaken to offset the negative traffic effects of the development. The number of trips is calculated, a distribution of those trips in and out of the site is suggested, and a level-of-service calculation (based on the delays with and without the project) are presented before describing the best ways to reducing the effects to an accepted level. However, almost all the guidelines used primarily address vehicular (car) traffic: the amount of guidance pertaining to public transportation, walking, and bicycling is limited if it exists at all. Some places, like the City of San Luis Obispo (see text box) have created alternative TIS guidelines that help integrate the broader objectives of complete streets. States have also started to acknowledge the importance of considering multi-modal transportation in their TIS guidance: FDOT's Transportation Site Impact Handbook (April 2014) contains a section on multimodal mitigation strategies, for example.

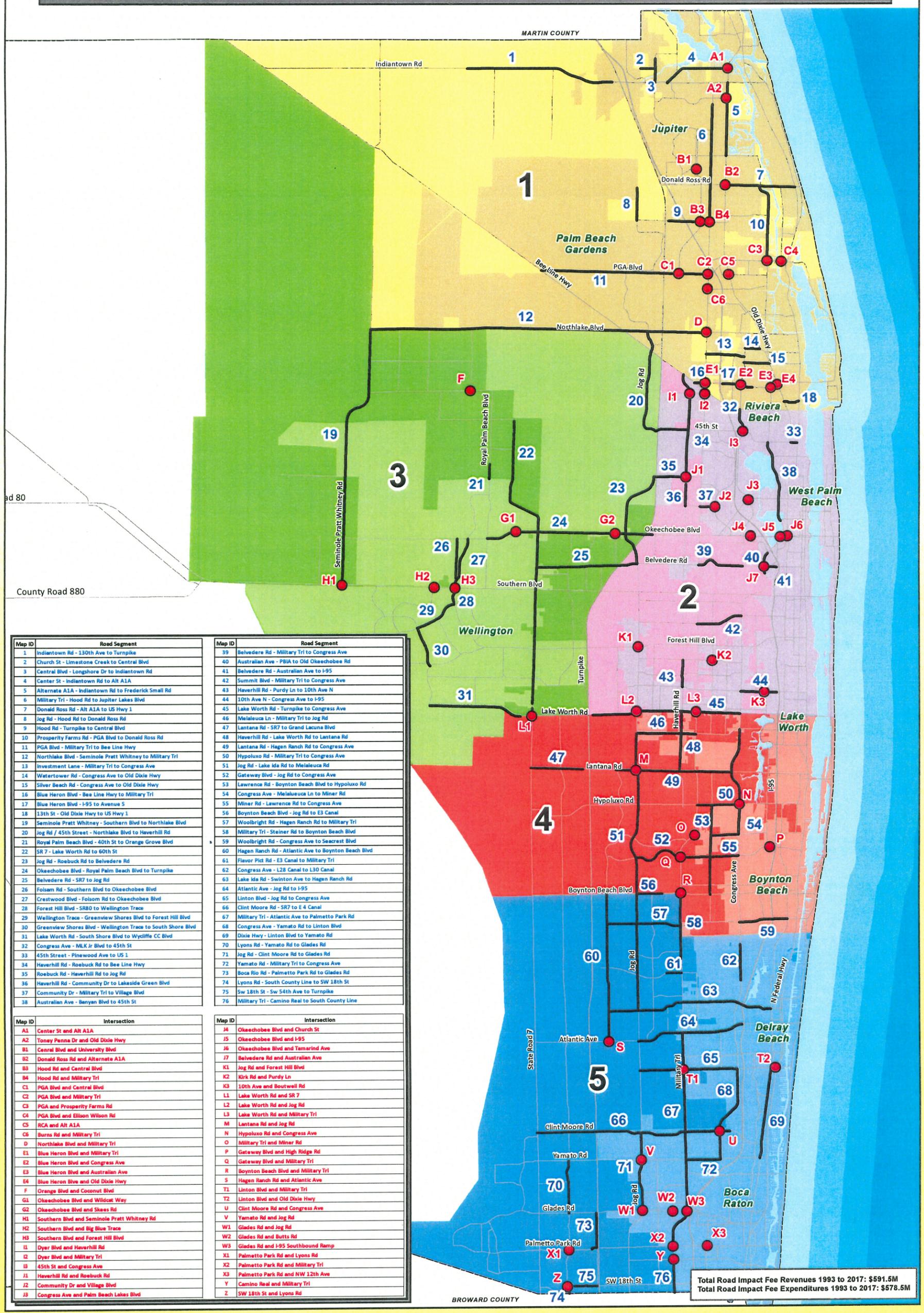
Other examples of how to incorporate complete street considerations into TIS guidelines include the following.

- Ensure that site location maps submitted as part of a site plan review process include sidewalks, transit stops, bike facilities and major destinations within a half-mile or more of the proposed site.
- Require specific calculations for internal trip capture (common, but sometimes buried deep in assumptions), and acknowledge / encourage those development types, designs, and locations that would benefit from reduced car trip-making incentives (like reductions in on-site parking requirements).
- Require the identification of pedestrian, bicycling and other barriers in and out of the site, and support mitigation strategies that eliminate, avoid, or reduce the effects of those barriers.
- Most TIS guidelines set acceptable level-of-service standards for cars; these can be set for pedestrians and cyclists as well, through multimodal level-of-service / quality level-of-service measures or delay calculations.
- It is commonplace for developers to be required to pay for or install off-site improvements such as traffic signal or intersection geometry changes to accommodate increased vehicular traffic. While rare, a clear connection between the proposed development and pedestrian attraction pairings (such as a major residential development and a nearby school) would also trigger off-site improvements to crossing treatments or short sections of connecting sidewalk.

Changes to existing TIS guidelines usually need to be conducted carefully and with the involvement of different parts of the community to avoid blowback from the private development community that would otherwise prove fatal to adopting improved TIS guidance. Ideally, changes to TIS guidance would initially stem from a larger effort, such as a downtown circulation plan, small-area study, or corridor plan / design.

# Palm Beach County

## Road Impact Fee Projects 1993 - 2017



Map ID	Road Segment
1	Indiantown Rd - 130th Ave to Turnpike
2	Church St - Limestone Creek to Central Blvd
3	Central Blvd - Longshore Dr to Indiantown Rd
4	Center St - Indiantown Rd to Alt A1A
5	Alternate A1A - Indiantown Rd to Frederick Small Rd
6	Military Trl - Hood Rd to Jupiter Lakes Blvd
7	Donald Ross Rd - Alt A1A to US Hwy 1
8	Jog Rd - Hood Rd to Donald Ross Rd
9	Hood Rd - Turnpike to Central Blvd
10	Prosperity Farms Rd - PGA Blvd to Donald Ross Rd
11	PGA Blvd - Military Trl to Bee Line Hwy
12	Northlake Blvd - Seminole Pratt Whitney to Military Trl
13	Investment Lane - Military Trl to Congress Ave
14	Watertower Rd - Congress Ave to Old Dixie Hwy
15	Silver Beach Rd - Congress Ave to Old Dixie Hwy
16	Blue Heron Blvd - Bee Line Hwy to Military Trl
17	Blue Heron Blvd - I-95 to Avenue S
18	13th St - Old Dixie Hwy to US Hwy 1
19	Seminole Pratt Whitney - Southern Blvd to Northlake Blvd
20	Jog Rd / 45th Street - Northlake Blvd to Haverhill Rd
21	Royal Palm Beach Blvd - 40th St to Orange Grove Blvd
22	SR 7 - Lake Worth Rd to 60th St
23	Jog Rd - Roebuck Rd to Belvedere Rd
24	Okeechobee Blvd - Royal Palm Beach Blvd to Turnpike
25	Belvedere Rd - SR7 to Jog Rd
26	Folsom Rd - Southern Blvd to Okeechobee Blvd
27	Crestwood Blvd - Folsom Rd to Okeechobee Blvd
28	Forest Hill Blvd - SR80 to Wellington Trace
29	Wellington Trace - Greenview Shores Blvd to Forest Hill Blvd
30	Greenview Shores Blvd - Wellington Trace to South Shore Blvd
31	Lake Worth Rd - South Shore Blvd to Wycliffe CC Blvd
32	Congress Ave - MLK Jr Blvd to 45th St
33	45th Street - Pinewood Ave to US 1
34	Haverhill Rd - Roebuck Rd to Bee Line Hwy
35	Roebuck Rd - Haverhill Rd to Jog Rd
36	Haverhill Rd - Community Dr to Lakeside Green Blvd
37	Community Dr - Military Trl to Village Blvd
38	Australian Ave - Banyan Blvd to 45th St

Map ID	Road Segment
39	Belvedere Rd - Military Trl to Congress Ave
40	Australian Ave - PBA to Old Okeechobee Rd
41	Belvedere Rd - Australian Ave to I-95
42	Summit Blvd - Military Trl to Congress Ave
43	Haverhill Rd - Purdy Ln to 10th Ave N
44	10th Ave N - Congress Ave to I-95
45	Lake Worth Rd - Turnpike to Congress Ave
46	Melaleuca Ln - Military Trl to Jog Rd
47	Lantana Rd - SR7 to Grand Lacuna Blvd
48	Haverhill Rd - Lake Worth Rd to Lantana Rd
49	Lantana Rd - Hagen Ranch Rd to Congress Ave
50	Hypoluxo Rd - Military Trl to Congress Ave
51	Jog Rd - Lake Ida Rd to Melaleuca Rd
52	Gateway Blvd - Jog Rd to Congress Ave
53	Lawrence Rd - Boynton Beach Blvd to Hypoluxo Rd
54	Congress Ave - Melaleuca Ln to Miner Rd
55	Miner Rd - Lawrence Rd to Congress Ave
56	Boynton Beach Blvd - Jog Rd to E3 Canal
57	Woolbright Rd - Hagen Ranch Rd to Military Trl
58	Military Trl - Steiner Rd to Boynton Beach Blvd
59	Woolbright Rd - Congress Ave to Seacrest Blvd
60	Hagen Ranch Rd - Atlantic Ave to Boynton Beach Blvd
61	Flavor Pict Rd - E3 Canal to Military Trl
62	Congress Ave - L28 Canal to L30 Canal
63	Lake Ida Rd - Swinton Ave to Hagen Ranch Rd
64	Atlantic Ave - Jog Rd to I-95
65	Linton Blvd - Jog Rd to Congress Ave
66	Clint Moore Rd - SR7 to E 4 Canal
67	Military Trl - Atlantic Ave to Palmetto Park Rd
68	Congress Ave - Yamato Rd to Linton Blvd
69	Dixie Hwy - Linton Blvd to Yamato Rd
70	Lyons Rd - Yamato Rd to Glades Rd
71	Jog Rd - Clint Moore Rd to Glades Rd
72	Yamato Rd - Military Trl to Congress Ave
73	Boca Rio Rd - Palmetto Park Rd to Glades Rd
74	Lyons Rd - South County Line to SW 18th St
75	SW 18th St - Sw 54th Ave to Turnpike
76	Military Trl - Camino Real to South County Line

Map ID	Intersection
A1	Center St and Alt A1A
A2	Toney Penna Dr and Old Dixie Hwy
B1	Central Blvd and University Blvd
B2	Donald Ross Rd and Alternate A1A
B3	Hood Rd and Central Blvd
B4	Hood Rd and Military Trl
C1	PGA Blvd and Central Blvd
C2	PGA Blvd and Military Trl
C3	PGA and Prosperity Farms Rd
C4	PGA Blvd and Ellison Wilson Rd
C5	RCA and Alt A1A
D	Buras Rd and Military Trl
E1	Northlake Blvd and Military Trl
E2	Blue Heron Blvd and Congress Ave
E3	Blue Heron Blvd and Australian Ave
E4	Blue Heron Blvd and Old Dixie Hwy
F	Orange Blvd and Coconut Blvd
G1	Okeechobee Blvd and Wildcat Way
G2	Okeechobee Blvd and Sheas Rd
H1	Southern Blvd and Seminole Pratt Whitney Rd
H2	Southern Blvd and Big Blue Trace
H3	Southern Blvd and Forest Hill Blvd
I	Dyer Blvd and Haverhill Rd
I2	Dyer Blvd and Military Trl
I3	45th St and Congress Ave
J1	Haverhill Rd and Roebuck Rd
J2	Community Dr and Village Blvd
J3	Congress Ave and Palm Beach Lakes Blvd

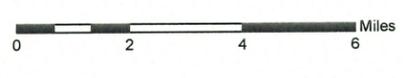
Map ID	Intersection
J4	Okeechobee Blvd and Church St
J5	Okeechobee Blvd and I-95
J6	Okeechobee Blvd and Tamarind Ave
J7	Belvedere Rd and Australian Ave
K1	Jog Rd and Forest Hill Blvd
K2	Kirk Rd and Purdy Ln
K3	10th Ave and Boutwell Rd
L1	Lake Worth Rd and SR 7
L2	Lake Worth Rd and Jog Rd
L3	Lake Worth Rd and Military Trl
M	Lantana Rd and Jog Rd
N	Hypoluxo Rd and Congress Ave
O	Military Trl and Miner Rd
P	Gateway Blvd and High Ridge Rd
Q	Gateway Blvd and Military Trl
R	Boynton Beach Blvd and Military Trl
S	Hagen Ranch Rd and Atlantic Ave
T1	Linton Blvd and Military Trl
T2	Linton Blvd and Old Dixie Hwy
U	Clint Moore Rd and Congress Ave
V	Yamato Rd and Jog Rd
W1	Glades Rd and Jog Rd
W2	Glades Rd and Butts Rd
W3	Glades Rd and I-95 Southbound Ramp
X1	Palmetto Park Rd and Lyons Rd
X2	Palmetto Park Rd and Military Trl
X3	Palmetto Park Rd and NW 12th Ave
Y	Camino Real and Military Trl
Z	SW 18th St and Lyons Rd

Total Road Impact Fee Revenues 1993 to 2017: \$591.5M  
 Total Road Impact Fee Expenditures 1993 to 2017: \$578.5M

Date: 8/7/2018  
 Contact: PBC Planning Division  
 Filename: N:\Division Projects\Dept P2B Zoning\ImpactFee  
 Note: Map is not official, for presentation purposes only.

Zone 1
  Zone 4
  Zone 3
  Zone 5

Municipalities



**Planning, Zoning & Building**  
 2300 N Jog Rd  
 West Palm Beach, FL 33411  
 Phone (561) 233-5300

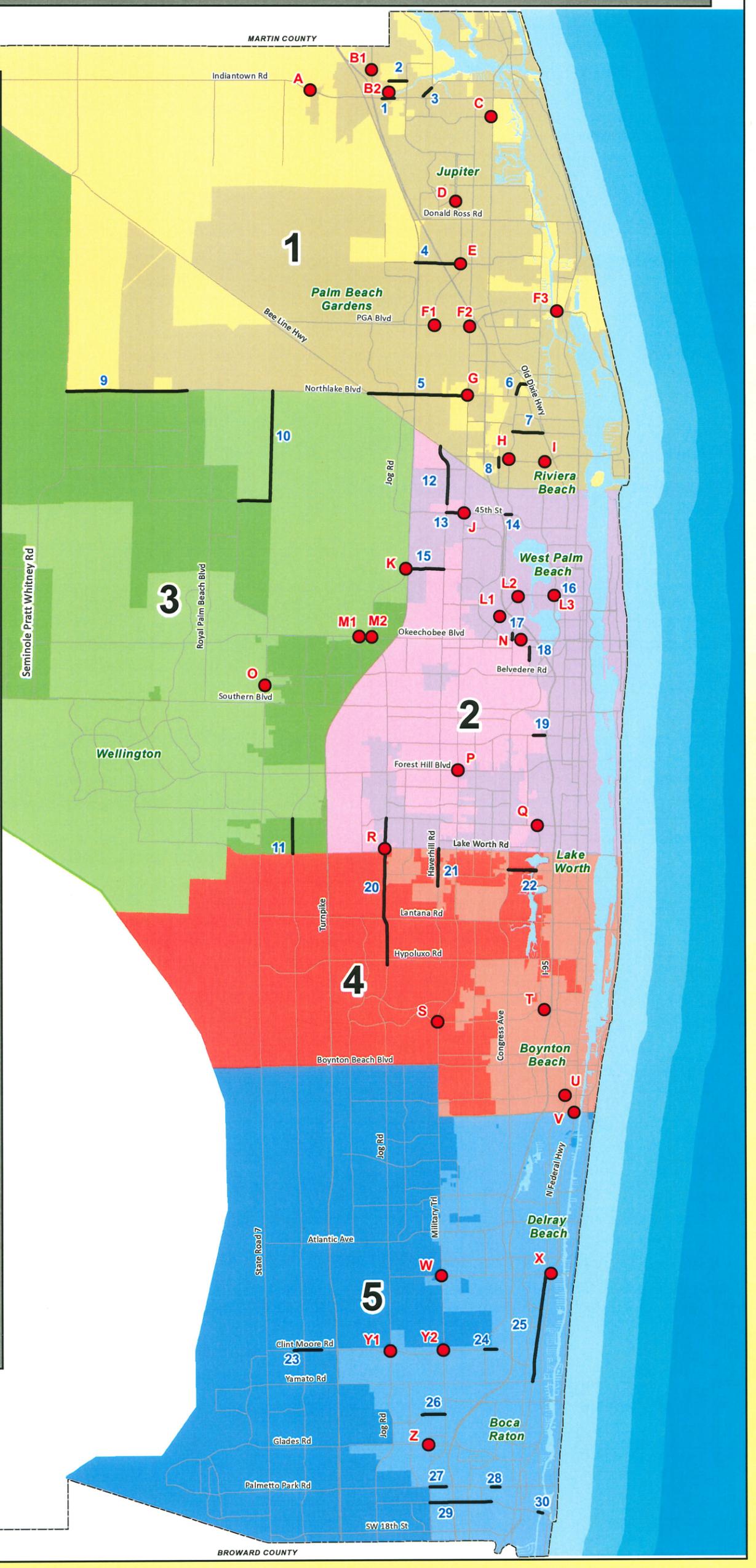


# Palm Beach County

## Road Impact Fee Projects 2018 - 2022

Map ID	Road Segment
1	Indiantown Rd - I-95 to Island Way
2	Church St - Limestone Creek Rd to Central Blvd
3	Center St - Thelma Ave to Woodland Estates Dr
4	Hood Rd - Turnpike to Central Blvd
5	Northlake Blvd - Bee Line Hwy to Military Trl
6	Congress Ave - Northlake Blvd to Alt A1A
7	Silver Beach Rd - Congress Ave to Old Dixie Hwy
8	Garden Rd - FDOT Canal to Blue Heron Blvd
9	Northlake Blvd - Seminole PW Rd to Coconut Blvd
10	SR 7 - 60th St to Northlake Blvd
11	Lyons Rd - Lake Worth Rd to L10 Canal
12	Haverhill Rd - Caribbean Blvd to Bee Line Hwy
13	45th St - Haverhill Rd to Military Trl
14	45th St - I-95 to Congress Ave
15	Roebuck Rd - Jog Rd to Haverhill Rd
16	Australian Ave - W 10th St to W 13th St
17	Congress Ave - Over F Canal to Ware St
18	Florida Mango Rd Over L-2 Canal
19	Summit Blvd - Over C-51 Canal
20	Jog Rd - Hypoluxo Rd to 10th Ave N
21	Haverhill Rd - Lake Worth Rd to L14 Canal
22	6th Ave S - Over Lake Osborne Dr
23	Clint Moore Rd - Oaks Club Dr to Long Lake Dr
24	Clint Moore Rd - Congress to East of E4 Canal
25	Dixie Hwy - Yamato Rd to Linton Blvd
26	Potomac Rd - Military Trl to E3 Canal
27	Palmetto Park Rd - Military Trl to I-95
28	Palmetto Park Rd - SW 7th Ave to SW 5 Ave
29	Camino Real - Military Trl to SW 7th Ave
30	Camino Real - Boca Club over Intracoastal

Map ID	Intersection
A	Indiantown Rd and Sierra Square
B1	Island Way and Casa Circle/Church St
B2	Island Way and Limestone Creek Rd
C	Toney Penna Dr and Old Dixie Hwy
D	Central Blvd and University Blvd
E	Hood Rd and Central Blvd
F1	PGA Blvd and Central Blvd
F2	PGA Blvd and Ellison Wilson Rd
F3	PGA Blvd and Military Trl
G	Northlake Blvd and Military Trl
H	Blue Heron Blvd and Congress Ave
I	Blue Heron Blvd and Australian Ave
J	45th and Military Trl
K	Jog Rd and Roebuck Rd
L1	Palm Beach Lakes Blvd and N Robbins Dr
L2	Congress Ave and Palm Beach Lakes Blvd
L3	Australian Ave and Palm Beach Lakes Blvd
M1	Okeechobee Blvd and Skees Rd
M2	Okeechobee Blvd and Jog Rd
N	Okeechobee Blvd and Church St
O	SR 7 and Weisman Way
P	Forest Hill Blvd and Military Trl
Q	10th Ave N and Boutwell Rd
R	Lake Worth Rd and Jog Rd
S	Gateway Blvd and Military Trl
T	Gateway Blvd and High Ridge Rd
U	Woolbright Rd and Seacrest Blvd
V	SE 23rd Ave and Federal Hwy
W	Military Trl and Linton Blvd
X	Linton Blvd and S Federal Hwy
Y1	Clint Moore and Jog Rd
Y2	Clint Moore and Military Trl
Z	Glades Rd and Butts Rd



Date: 8/7/2018  
 Contact: PBC Planning Division  
 Filename: N:\Division Projects\Dept PZB Zoning\ImpactFee

	Zone 1		Zone 4
	Zone 2		Zone 5
	Zone 3		Municipalities

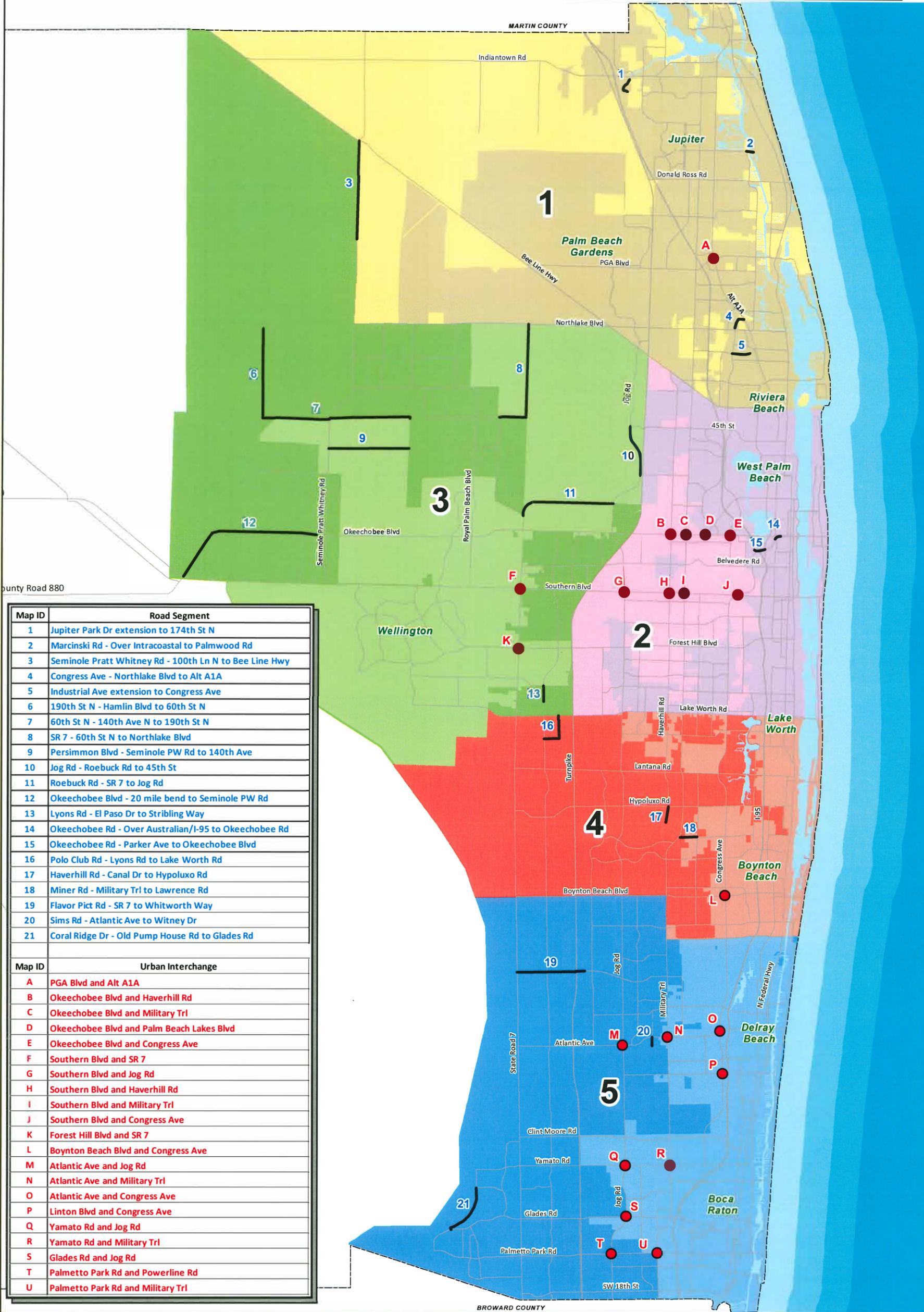


**Planning, Zoning & Building**  
 2300 N Jog Rd  
 West Palm Beach, FL 33411  
 Phone (561) 233-5300



# Palm Beach County

## Road Impact Fee Projects - 2023 to 2035



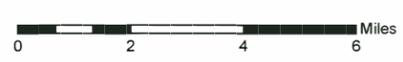
Map ID	Road Segment
1	Jupiter Park Dr extension to 174th St N
2	Marcinski Rd - Over Intracoastal to Palmwood Rd
3	Seminole Pratt Whitney Rd - 100th Ln N to Bee Line Hwy
4	Congress Ave - Northlake Blvd to Alt A1A
5	Industrial Ave extension to Congress Ave
6	190th St N - Hamlin Blvd to 60th St N
7	60th St N - 140th Ave N to 190th St N
8	SR 7 - 60th St N to Northlake Blvd
9	Persimmon Blvd - Seminole PW Rd to 140th Ave
10	Jog Rd - Roebuck Rd to 45th St
11	Roebuck Rd - SR 7 to Jog Rd
12	Okeechobee Blvd - 20 mile bend to Seminole PW Rd
13	Lyons Rd - El Paso Dr to Stribling Way
14	Okeechobee Rd - Over Australian/I-95 to Okeechobee Blvd
15	Okeechobee Rd - Parker Ave to Okeechobee Blvd
16	Polo Club Rd - Lyons Rd to Lake Worth Rd
17	Haverhill Rd - Canal Dr to Hypoluxo Rd
18	Miner Rd - Military Trl to Lawrence Rd
19	Flavor Pict Rd - SR 7 to Whitworth Way
20	Sims Rd - Atlantic Ave to Witney Dr
21	Coral Ridge Dr - Old Pump House Rd to Glades Rd

Map ID	Urban Interchange
A	PGA Blvd and Alt A1A
B	Okeechobee Blvd and Haverhill Rd
C	Okeechobee Blvd and Military Trl
D	Okeechobee Blvd and Palm Beach Lakes Blvd
E	Okeechobee Blvd and Congress Ave
F	Southern Blvd and SR 7
G	Southern Blvd and Jog Rd
H	Southern Blvd and Haverhill Rd
I	Southern Blvd and Military Trl
J	Southern Blvd and Congress Ave
K	Forest Hill Blvd and SR 7
L	Boynton Beach Blvd and Congress Ave
M	Atlantic Ave and Jog Rd
N	Atlantic Ave and Military Trl
O	Atlantic Ave and Congress Ave
P	Linton Blvd and Congress Ave
Q	Yamato Rd and Jog Rd
R	Yamato Rd and Military Trl
S	Glades Rd and Jog Rd
T	Palmetto Park Rd and Powerline Rd
U	Palmetto Park Rd and Military Trl

Date: 9/6/2018  
 Contact: PBC Planning Division  
 Filename: N:\Division Projects\Dept PZB Zoning\Impact\Fee  
 Source: PBC Engineering, Planning

Zone 1
  Zone 2
  Zone 3
  Zone 4
  Zone 5
  Municipalities



**Planning, Zoning & Building**  
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 West Palm Beach, FL 33411  
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Note: Map is not official, for presentation purposes only.

## Summary Points of the February 21, 2019 Governing Board Meeting

PDF versions of the agenda, backup material and presentations as well as audio recordings are available for review at [www.PalmBeachTPA.org/Board](http://www.PalmBeachTPA.org/Board)

Item No.	Description	Action
<i>Regular Items</i>		
1.F	<p>Member Comments</p> <p>COMMISSIONER VALECHÉ encouraged members to join him at the 2019 Safe Streets Summit that will be held on Monday, February 25 in Miami. He noted he will be taking the Brightline train down to attend the event. He stated the TPA is organizing a Bike to Work Day ride on Friday, March 15 and encouraged members to participate in this annual event.</p> <p>COUNCILMAN NAPOLEONE welcomed meeting attendees to the Village of Wellington on behalf of the council and residents, and provided a brief background of the facility.</p> <p>COMMISSIONER MCKINLAY encouraged meeting attendees to join her in Tallahassee for Palm Beach County Day that will be held March 5-6. She thanked the District 6 Mayors, City Managers and Improvement District Directors for the discussions about conditions on Northlake Boulevard. She noted she held a Town Hall meeting in the Acreage and provided a brief summary of the discussions. She requested a discussion of the current conditions and future planning on the Northlake Boulevard corridor at the next meeting.</p>	
<i>Consent Items</i>		
1.H.1	<p><b>MOTION TO ADOPT</b> a Resolution approving the Federal Transit Administration (FTA) required certifications and assurances and a new Public Transportation Grant Agreement, providing a maximum reimbursement from the Florida Department of Transportation (FDOT) to the TPA of \$624,062 through December 31, 2020.</p>	Adopted 17-0
1.H.2	<p><b>MOTION TO ADOPT</b> a Resolution approving TPA Board Member Travel to the Metropolitan Planning Organization Advisory Council (MPOAC) meetings, Southeast Florida Transportation Council (SEFTC) meetings and MPOAC Weekend Institute.</p>	Adopted 17-0
1.H.3	<p><b>MOTION TO APPROVE</b> Appointment of Mr. Gary Sypek as an Alternate for the Palm Beach County Department of Airports on the Technical Advisory Committee (TAC).</p>	Adopted 17-0

Item No.	Description	Action
<i>Consent Items (cont.)</i>		
1.H.4	MOTION TO APPROVE Appointment of Mr. Steve Anderson as the Representative and Ms. Anna Bielawska as the Alternate for Palm Tran on the TAC.	Approved 17-0
1.H.5	MOTION TO APPROVE Appointment of Mr. Erik Ferguson as the Representative and Ms. Kimberly Kosirog as the Alternate for the City of Boca Raton on the Bicycle, Trailways, Pedestrian Advisory Committee (BTPAC).	Approved 17-0
1.H.6	MOTION TO APPROVE Appointment of Ms. Amy Alvarez as the Representative and Ms. Cynthia Fuentes as the Alternate for the City of Delray Beach on the BTPAC.	Approved 17-0
1.H.7	MOTION TO APPROVE Appointment of Ms. Robyn Manuel as the Representative for the Florida Department of Education Division of Vocational Rehabilitation on the Transportation Disadvantaged Local Coordinating Board (TDLCB).	Approved 17-0
1.H.8	MOTION TO APPROVE Appointment of Ms. Elisa Cramer as the Representative for the Florida Department of Children and Family Services on the TDLCB.	Approved 17-0
<i>General Public Comments</i>		
1.I	There were no general public comments received.	
<i>Action Items</i>		
2.A	<p>MOTION TO ADOPT a Resolution approving FY 19 &amp; FY 20 Unified Planning Work Program (UPWP) Amendment #2</p> <p>The TPA Board approved Amendment #2 that refines available FY 19 funding and adds the ~\$1.2M of available FHWA planning funds to FY 20 in order to pay lease expenses and support ongoing TPA planning and administrative activities.</p> <p>The TPA Board also requested FDOT flexibility on its policies so that the TPA can move forward with the time-critical, one-time expenditures associated with its transition to an independent agency. Specifically, the TPA Board requested an FDOT commitment by March 15, 2019 to authorize expenditure of at least \$1.7M of FY 20 FHWA funding as of July 1, 2019 to support the transition consistent with the terms and conditions of the lease agreement.</p>	Adopted as Modified 18-0

Item No.	Description	Action
<i>Action Items (cont.)</i>		
2.B	<p><b>MOTION TO ADOPT</b> a Resolution approving FY 20-24 Priority Projects List Amendment #1</p> <p>The TPA Board deleted \$2.5M in TPA Local Initiatives funding for Transit Signal Priority on Palm Tran Routes 43 and 62 (at the request of Palm Tran) and authorized Palm Tran to use those funds for their Fare Technology Interoperability project instead. COMMISSIONER JAMES dissented.</p>	Adopted 17-1
2.C	<p><b>MOTION TO ADOPT</b> a Resolution approving Transportation Improvement Program (TIP) Amendment #4</p> <p>The TPA Board deleted \$1.5M in TPA Local Initiatives funding for new trolley service in Boca Raton (at the request of the City) and reassigned those funds to Palm Tran for their Fare Technology Interoperability project instead.</p>	Adopted 18-0
2.D	<p><b>MOTION TO ADOPT</b> a Resolution approving the 2019 Safety Targets</p> <p>The TPA adopted targets of zero (0) traffic-related fatalities and serious injuries for calendar year 2019 and reaffirmed direction to staff to develop a Vision Zero Action Plan.</p>	Adopted 18-0
<i>Information Items</i>		
3.A	<p>AARP Livable Communities</p> <p>AARP Florida Executive Council representative, MR. KEN REINHARDT, provided a PowerPoint presentation and highlighted a few key aspects that people of all ages can expect in a livable community. He provided a comparison of population projections by age with data from 2010 to 2040 and discussed livability as it relates to housing, transportation and engagement. He briefly highlighted the cities that are in the AARP Age-Friendly Network and AARP's Livability Index tool that can be accessed at <a href="http://livabilityindex.aarp.org/">http://livabilityindex.aarp.org/</a>.</p>	
3.B	<p>Florida Bicycle Month</p> <p>Palm Beach TPA Pedestrian and Bicycle Coordinator, MR. NICHOLAS HERNANDEZ, highlighted the Palm Beach TPA's Bike to Work Day ride on March 15 starting at 7:30 a.m. at the Mangonia Park Tri-Rail Station and ending at 8:15 a.m. at West Palm Beach City Hall. He briefly reviewed the 2018 events and encouraged municipalities to add their own Bicycle Month events to the <a href="http://www.BikePalmBeach.org">www.BikePalmBeach.org</a> calendar. He noted in 2018 there were seven Florida Bicycle Month Proclamations in Palm Beach County and encouraged more municipalities to do a Florida Bicycle Month Proclamation this year.</p>	

Item No.	Description	Action
<i>Information Items (cont.)</i>		
3.C	Congestion Management Process (CMP) Report Card MR. UHREN provided a presentation on the 2018 CMP Report Card that was included in the agenda packet. He noted the CMP originated as a federal requirement to monitor congestion and that the TPA has shifted it to include multimodal goals and objectives, which will be revamped in the upcoming 2045 LRTP update.	
3.D	Partner Agency Updates There were no partner agency updates received.	
3.E.1	TPA Resolution 2018-18: Acknowledging the cooperative process to develop the Draft FY 20-24 Work Program; Endorsing the Draft Program with requested modifications to advance TPA Major Projects. There was no discussion on this item.	
3.E.2	Response letter from FDOT Secretary O'Reilly. There was no discussion on this item.	
<i>Administrative Items</i>		
4.A.1	Subsidy Award Report for Palm Beach County League of Cities 49 <sup>th</sup> Annual Tri-Cities Barbeque There was no discussion on this item.	
4.B.1	Public Involvement Activity Reports for December and January There was no discussion on this item.	
4.B.2	Financial Report for the second quarter of FY 2019 (October thru December, 2018) There was no discussion on this item.	
4.C	Next meeting - March 21, 2019 in Palm Springs Village Hall, 226 Cypress Lane, Palm Springs, FL 33461	