PALM BEACH Transportation Planning Agency

BICYCLE TRAILWAYS PEDESTRIAN ADVISORY COMMITTEE (BTPAC) AGENDA

DATE: **Thursday, December 2, 2021**

TIME: **9:00 a.m.**

PLACE: **301 Datura Street | West Palm Beach, FL 33401**

Attendees may not enter the TPA workplace if they have a fever or if, in the previous 14 days, they have tested positive for COVID-19, exhibited symptoms of COVID-19, or been in close contact with someone with COVID-19. To promote awareness of multimodal options for in-person attendance, a map of transportation facilities and services around the TPA Office is provided on page 4.

Members of the public can also join the meeting virtually in the following ways:

- Via Zoom app using Webinar ID: 835-7372-0185 and Password: 946374
- Via web browser at PalmBeachTPA.org/BTPAC02DEC2021
- Via phone at 1-646-558-8656 using the above Webinar ID and Password
- View a live simulcast at PalmBeachTPA.org/LIVE

For assistance joining the virtual meeting, call 561-725-0800 or e-mail info@PalmBeachTPA.org.

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1. REGULAR ITEMS

   A. Call to Order and Roll Call

   B. Modifications to the Agenda

   C. MOTION TO APPROVE Minutes for October 7, 2021

   D. General Public Comments and Public Comments on Agenda Items

      Members of the public are invited to offer general comments and/or comments or questions on specific agenda items as follows:

      - A written document, comment and/or question may be submitted at PalmBeachTPA.org/BTPAC-comment at any time prior to the commencement of the relevant agenda item.
      - A verbal comment may be provided by a virtual attendee using the raise hand feature in the Zoom platform.
      - A verbal comment may be provided by an in-person attendee submitting a comment card available at the welcome table.

      The Chair may limit comments to 3 minutes or less depending on meeting attendance.

   E. Comments from the Chair and Member Comments

   F. BTPAC Liaison's Report

2. ACTION ITEMS

A. MOTION TO ELECT OFFICERS for the 2022 Calendar Year

Pursuant to Section 5.3.B of the TPA's Operating Procedures, "The officers shall be elected annually at the last regularly scheduled meeting of the calendar year. The newly elected officers shall take office at the first regularly scheduled meeting of the following calendar year."

Stephanie Thoburn is the current Chair and Brian Ruscher is the current Vice Chair.

B. MOTION TO RECOMMEND ADOPTION of Amendment #2 to the TPA's Fiscal Year (FY) 22-26 Transportation Improvement Program (TIP)

The TIP is the TPA's five-year funding program for transportation projects in Palm Beach County. The Florida Department of Transportation (FDOT) has requested approval of two amendments as shown in the attached document and summarized below.

- I-95 at PGA Blvd southbound on-ramp (FM# 443590-1): Advance federal funds for construction from FY 2024 to FY 2022.
- I-95 at Boynton Beach Blvd interchange (FM# 435804-1): Add a project to the TIP with design and right-of-way in FY 2022 and construction in FY 2025.

C. MOTION TO RECOMMEND ADOPTION of a Resolution affirming TPA support for the Atlantic Avenue Widening Project from Florida's Turnpike to Jog Road

TPA staff will briefly review the attached draft update for the Project Development & Environment (PDE) phase of the project, including revised typical sections and alternatives for the Atlantic Avenue and Jog Road intersection.

To promote safety for all users consistent with the TPA's Vision Zero commitment, Complete Streets policy, and Complete Streets Design Guidelines, a draft resolution is attached that affirms TPA support for the project as follows:

- For the typical section, provide sidewalks or shared use pathways of at least 10 feet in width; and
- If feasible without moving the construction start date or purchasing additional right-of-way, extend these facilities to SR 7 by including them in the Atlantic Avenue widening from SR 7 to Lyons Road (FM 229658-4) and from Lyons Road to Jog Road (FM 440575-1); and

For the Jog Road intersection, eliminate components of the build alternative with significant adverse impacts to pedestrian and bicycle safety or major right-of-way acquisitions that require the relocation of homes or businesses.

3. INFORMATION ITEMS

A. Palm Tran Major Transit Development Plan (TDP) Update

Palm Tran staff will summarize their FY 22-31 TDP major update, which is a 10-year strategic plan for transit informed by public engagement and highlighting funding needs and current revenues. The draft presentation is attached.

B. Okeechobee Blvd & SR 7 Multimodal Corridor Study Update

TPA staff will provide an update on the Okeechobee Boulevard & SR 7 Multimodal Corridor Study, including an overview of the project timeline and ways to get involved. The draft presentation is attached.

C. FY 2021 Annual Listing of Obligated Projects

Both 23 USC §134 and §339.175, Florida Statutes, mandate that the TPA publish the annual listing of projects for which federal funds have been obligated in the preceding year. 23 CFR §450.334 further stipulates that the listing shall identify for each project the amount of Federal funds requested in the TIP, the Federal funding that was obligated during the preceding year, and the Federal funding remaining and available for subsequent years. The FY 21 Obligation Report Summary is attached and a detailed project listing is available at PalmBeachTPA.org/TIP.

D. COVID-19 Report

Action 2.F of the TPA Board's adopted FY 22 Strategic Plan directed staff to research the impact of COVID-19 on transportation in Palm Beach County. This report provides a year-over-year, between February 2020 and February 2021, update on COVID-19 impacts on the transportation system in Palm Beach County. TPA staff will present a summary of the findings. The full report is attached and also available at PalmBeachTPA.org/COVID-19.

4. ADMINISTRATIVE ITEMS

A. Governing Board Summary Points – October 21 and November 18, 2021

B. FDOT Scheduling Reports – December 2021

C. Pedestrian & Bicycle Quarterly Fatal Crash Reports – July 1-September 30, 2021

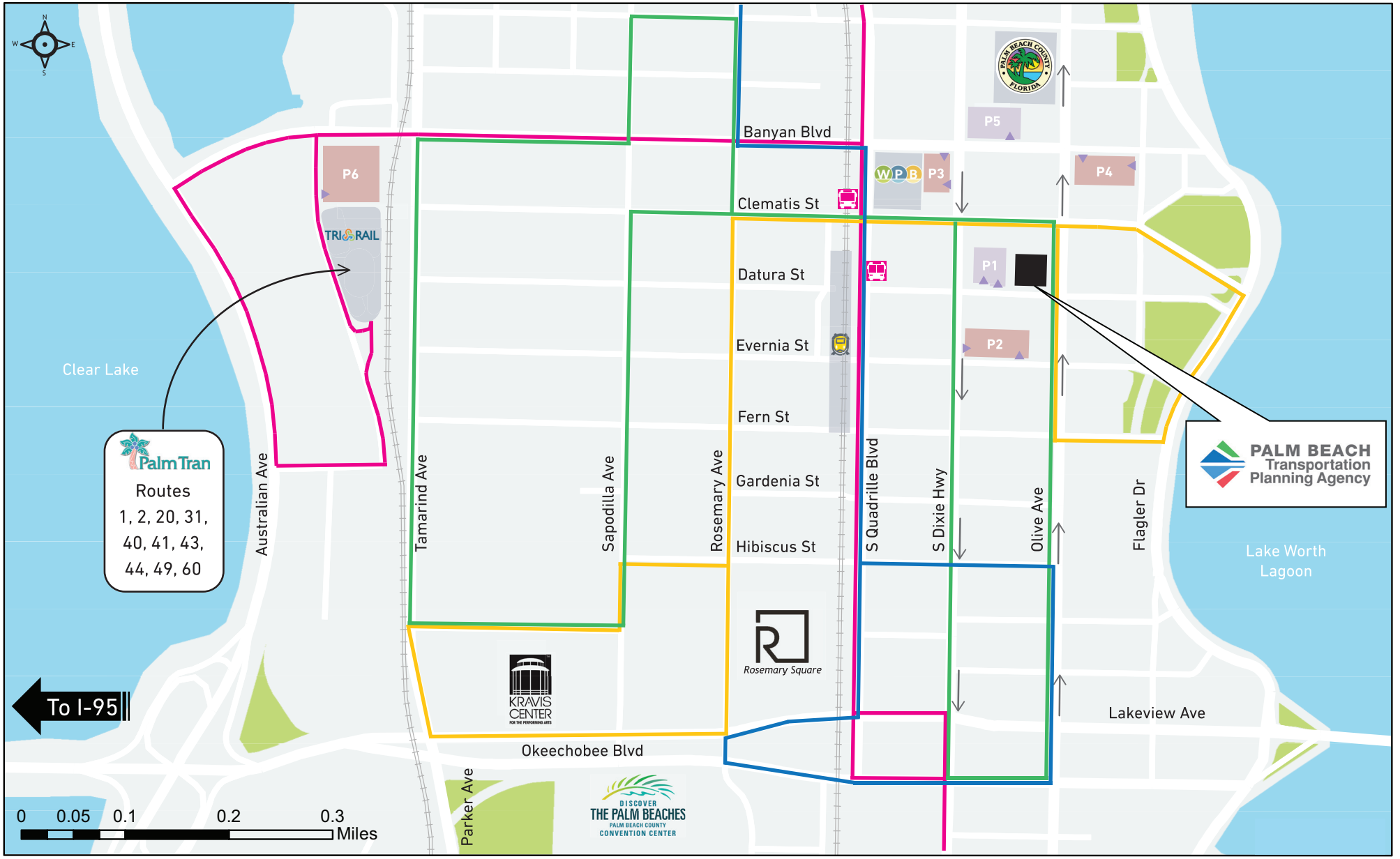
D. Next Meeting – **February 3, 2022 (No January meeting)**

E. Adjournment

PALM BEACH Transportation Planning Agency

Attending a meeting at the Palm Beach TPA Office

301 Datura Street, West Palm Beach, FL 33401



Legend:

- TPA Office Location
- PalmTran PalmTran.org
  - Palm Tran Bus Stop
  - Palm Tran Route 1
- WPB WEST PALM BEACH DowntownWPB.com
  - Yellow Trolley
  - Green Trolley
  - Blue Trolley
- TRI RAIL Tri-Rail.com
  - Brightline Station GoBrightline.com
- Public Parking
  * Metered on-street parking also available citywide
- Private Parking

BICYCLE-TRAILWAYS-PEDESTRIAN ADVISORY COMMITTEE MEMBERS

CHAIR
Stephanie Thoburn
Town of Jupiter
Alternate: Garret Watson

VICE CHAIR
Brian Ruscher
City of Delray Beach
Alternate: Amy Alvarez

Tracy Phelps
City of Boca Raton
Alternate: Kimberly Kosirog

Bruce Rosenzweig
Boca Raton Bicycle Club

Craig Pinder
City of Boynton Beach
Alternate: Kathleen Hatcher

Ted Goodenough
Disabled Community

Joanna Peluso
Healthier Jupiter

Joann Skaria
City of Palm Beach Gardens

Fadi Nassar
Palm Beach County - Engineering
Alternate: Neil Wantz

Jacey Biery
Palm Beach County – ERM
Alternate: Sally Channon

David Wiloch
Palm Beach County - Planning
Alternate: Michael Howe

Jean Matthews
Palm Beach County – Parks & Recreation
Alternate: Casey Pranckun

Yash Nagal
Palm Tran

Michael Owens
School District of Palm Beach County
Alternate: Joyell Shaw

Ryan Harding
Village of Wellington
Alternate: Christian Santa-Gonzalez

John Roach
City of West Palm Beach

Larry Wallace
Florida Department of Transportation
Non-Voting Advisory Member
Alternate: Wibet Hay

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, they will need a record of the proceedings, and that, for such purposes, they 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 a printed copy of the agenda package, require special accommodations under the Americans with Disabilities Act or require translation services for a meeting (free of charge) must call 561-725-0800 or email Info@PalmBeachTPA.org at least five business days in advance. Hearing impaired individuals are requested to telephone the Florida Relay System at #711.

PALM BEACH Transportation Planning Agency

OFFICIAL MEETING MINUTES OF THE
BICYCLE, TRAILWAYS AND PEDESTRIAN ADVISORY COMMITTEE (BTPAC)

Thursday, October 7, 2021

301 Datura Street, West Palm Beach, FL 33401
Meeting was also conducted virtually via Zoom.

These minutes are a summary of the meeting events and may not reflect all discussion that occurred.
PDF versions of the agenda, backup material and presentations as well as audio recordings are available for review at PalmBeachTPA.org/BTPAC

1. REGULAR ITEMS

1.A. Call to Order and Roll Call

CHAIR THOBURN called the meeting to order at 9:00 a.m. and provided an overview of the meeting procedures.

The Recording Secretary called the roll. A quorum was present as depicted in the table below.

Member	Roll Call	Member	Roll Call	Member	Roll Call
Tracy Phelps	P	Fadi Nassar	P	Ryan Harding	P
Bruce Rosenzweig	P	Sally Channon	P	John Roach	P
Craig Pinder	A	David Wiloch	P	Wibet Hay (Alt)	P
Ted Goodenough	P	Jean Matthews	P	Brian Ruscher	P
Joanna Peluso	P	Yash Nagal	P	Stephanie Thoburn	P
Joann Skaria	P	Joyell Shaw (Alt)	P		

P = Present A = Absent

1.B. Modifications to the Agenda

TPA staff requested removal of Action Item 2.B to allow for additional staff coordination on the project and noted the item will be presented in December.

MOTION to approve the modified agenda made by Brian Ruscher, seconded by Bruce Rosenzweig, and carried unanimously 15-0 as depicted in the table below.

Member	Vote	Member	Vote	Member	Vote
Tracy Phelps	Y	Fadi Nassar	Y	Ryan Harding	Y
Bruce Rosenzweig	Y	Sally Channon	Y	John Roach	Y
Craig Pinder	A	David Wiloch	Y	Brian Ruscher	Y
Ted Goodenough	Y	Jean Matthews	Y	Stephanie Thoburn	Y
Joanna Peluso	Y	Yash Nagal	Y		
Joann Skaria	Y	Joyell Shaw (Alt)	Y		

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

1.C. APPROVED Minutes for September 2, 2021

MOTION to approve the Minutes made by Brian Ruscher, seconded by Ted Goodenough, and carried unanimously 15-0 as depicted in the table below.

Member	Vote	Member	Vote	Member	Vote
Tracy Phelps	Y	Fadi Nassar	Y	Ryan Harding	Y
Bruce Rosenzweig	Y	Sally Channon	Y	John Roach	Y
Craig Pinder	A	David Wiloch	Y	Brian Ruscher	Y
Ted Goodenough	Y	Jean Matthews	Y	Stephanie Thoburn	Y
Joanna Peluso	Y	Yash Nagal	Y		
Joann Skaria	Y	Joyell Shaw (Alt)	Y		

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

1.D. General Public Comments and Public Comments on Action Items

There were no general public comments received.

1.E. Comments from the Chair and Member Comments

There were no Chair or member comments received.

1.F. BTPAC Liaison's Report

ALYSSA FRANK, TPA Pedestrian & Bicycle Coordinator, reviewed the Report, which can be viewed at PalmBeachTPA.org/BTPAC under "Presentations."

There were no public comments on this item.

Members expressed concern that only a handful of items were reviewed from the full report.

2. ACTION ITEMS

2.A. RECOMMENDED ADOPTION of Amendment #2 to the TPA's Fiscal Year (FY) 22-26 Transportation Improvement Program (TIP)

JASON PRICE, TPA TIP Coordinator, provided a PowerPoint presentation that can be viewed at PalmBeachTPA.org/BTPAC under "Presentations." The TIP is the five-year funding program for transportation projects in Palm Beach County. FDOT requested approval of an amendment to revise the length of the Northmore Neighborhood Project (FM# 441527). Jason clarified that TIP amendments are needed to add/delete a project, if cost increases more than 20% or $2 million, or there are changes to scope of work in length change by ½ mile and 20% or number of through traffic lanes. Jason also noted the amendment only impacts the projects listed in said amendment and no other projects in the adopted TIP.

There were no public comments on this item.

Member discussion ensued on local schools near the project lengths, if sidewalks or shared-use paths were present, and clarification on the project location and requested amendment details.

JOHN ROACH clarified his affirmative vote would only be for the projects listed and should not be misconstrued as support for the State Road 7 projects.

MOTION to Recommend Adoption of Amendment #2 to the TPA's FY 22-26 TIP as presented made by Sally Channon and seconded by Brian Ruscher. A roll call vote was taken and carried unanimously 15-0 as depicted in the table below.

Member	Vote	Member	Vote	Member	Vote
Tracy Phelps	Y	Fadi Nassar	Y	Ryan Harding	Y
Bruce Rosenzweig	Y	Sally Channon	Y	John Roach	Y
Craig Pinder	A	David Wiloch	Y	Brian Ruscher	Y
Ted Goodenough	Y	Jean Matthews	Y	Stephanie Thoburn	Y
Joanna Peluso	Y	Yash Nagal	Y		
Joann Skaria	Y	Joyell Shaw (Alt)	Y		

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

~~2.B. MOTION TO RECOMMEND ADOPTION of a Resolution affirming TPA support for the Atlantic Avenue Widening Project from Florida's Turnpike to Jog Road~~

Item was removed from the agenda.

2.C. RECOMMENDED APPROVAL of the 2022 Transportation Alternatives (TA) Program Guidelines and Scoring System

ALYSSA provided a PowerPoint presentation that can be viewed at PalmBeachTPA.org/BTPAC under "Presentations." Established by MAP-21 and re-authorized through the FAST Act, the federal Transportation Alternatives Program is a cost-reimbursement program where nonmotorized projects are selected by the TPA via an annual, competitive application process. Alyssa reviewed the draft 2022 program guidelines and scoring system.

There were no public comments on this item.

Member discussion ensued on the shared use path point changes, traditionally underserved index scoring clarification, and questions on BTPAC reranking of projects.

TED GOODENOUGH expressed opposition against the use of shared use paths on behalf of the disabled community and provided an example to illustrate his point.

MOTION to Recommend Approval of the 2022 TA Program Guidelines and Scoring System with a request to footnote a hyperlink to the Traditionally Underserved Index posted to the TPA website made by Brian Ruscher and seconded by Ryan Harding. A roll call vote was taken and carried 13-2 as depicted in the table below.

Member	Vote	Member	Vote	Member	Vote
Tracy Phelps	N	Fadi Nassar	Y	Ryan Harding	Y
Bruce Rosenzweig	Y	Sally Channon	Y	John Roach	Y
Craig Pinder	A	David Wiloch	Y	Brian Ruscher	Y
Ted Goodenough	N	Jean Matthews	Y	Stephanie Thoburn	Y
Joanna Peluso	Y	Yash Nagal	Y		
Joann Skaria	Y	Joyell Shaw (Alt)	Y		

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

2.D. RECOMMENDED ADOPTION of a Resolution requesting timely submittal of FDOT's FY 2023-2027 Draft Tentative Work Program (DTWP) to the TPA

ALYSSA stated the provided resolution requests timely submittal of FDOT's DTWP. Alyssa noted FDOT staff were not able to compile and provide either the District or Turnpike DTWP in time for inclusion in the agenda packet, however, the Turnpike list of projects will be provided following his presentation. Alyssa stated because TPA staff and Committee members cannot thoroughly review projects and funding prior to approval, it does not allow for a collaborative process between partners.

CHAIR THOBURN requested the committee move on the recommendation first then receive an update from Florida's Turnpike staff.

There were no public comments on this item.

Member discussion ensued on the agenda submittal deadline and collaborative process with FDOT.

MOTION to Recommend Adoption of a Resolution requesting timely submittal of FDOT's FY 2023-2027 Draft Tentative Work Program (DTWP) to the TPA made by Jean Matthews and seconded by Brian Ruscher. A roll call vote was taken and carried unanimously 15-0 as depicted in the table below.

Member	Vote	Member	Vote	Member	Vote
Tracy Phelps	Y	Fadi Nassar	Y	Ryan Harding	Y
Bruce Rosenzweig	Y	Sally Channon	Y	John Roach	Y
Craig Pinder	A	David Wiloch	Y	Brian Ruscher	Y
Ted Goodenough	Y	Jean Matthews	Y	Stephanie Thoburn	Y
Joanna Peluso	Y	Yash Nagal	Y		
Joann Skaria	Y	Joyell Shaw (Alt)	Y		

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

VICTORIA WILLIAMS, Florida's Turnpike, provided a PowerPoint presentation that can be viewed at PalmBeachTPA.org/BTPAC under "Presentations." Victoria provided an overview of the Turnpike System, the agency's mission, vision and values, revenues and expenditures, prioritization process, and highlighted projects along the Turnpike corridor in District 4.

Member discussion ensued on widening at the county line, interchange improvements planned for the future, consideration for future freight traffic, and potential for a multimodal system on the Turnpike.

3. INFORMATION ITEMS

3.A. DISCUSSED: Strategic Plan Action 6.B – Modify TPA Committees to Support TPA Initiatives

ALYSSA provided a PowerPoint presentation that can be viewed at PalmBeachTPA.org/BTPAC under "Presentations." Alyssa reviewed the draft amendments to Section 5 of the TPA's Operating Procedures related to the composition and operations of the BTPAC. Alyssa stated the purpose for this change is to modify the TPA committee to support TPA initiatives and ensure the committee reflects a board cross-section of pedestrian and bicycle safety advocates. Alyssa noted TPA staff is looking for feedback today and will present this as an action item at a future meeting.

There were no public comments on this item.

Member discussion ensued on concerns taking "trailways" out of the committee name, the potential for representation from law enforcement and fire rescue, and clarification on purposed to rank SunTrail program applications.

4. ADMINISTRATIVE ITEMS

4.A. FDOT Project Scheduling Report – October 2021

There were no public comments or member discussion on this item.

4.B. Next Meeting – December 2, 2021

4.C. Adjournment

There being no further business the meeting was adjourned at 10:59 a.m.

This signature is to attest that the undersigned is the Chair, or a designated nominee, of the Bicycle, Trailways, and Pedestrian Advisory Committee and that information provided herein is the true and correct Minutes for the October 7, 2021 meeting of the Bicycle, Trailways, and Pedestrian Advisory Committee, dated this 2nd day of December 2021.

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Stephanie Thoburn
BTPAC Chair

EXHIBIT A

BTPAC Member Attendance Record

REPRESENTATIVE/Alternate Agency Name	**Nov '20**	**Dec '20**	**Jan '21**	**Feb '21**	**Mar '21**	**Apr '21**	**May '21**	**Jun '21**	**Jul '21**	**Sep '21**	**Oct '21**
CHAIR STEPHANIE THOBURN/Garret Watson Town of Jupiter	No Meeting Held – Scheduled Break	P	No Meeting Held – Scheduled Break	P	ALT	P	P	P	P	E	P
VICE CHAIR BRIAN RUSCHER/Amy Alvarez City of Delray Beach		P		P	P	P	P	P	P	P	P
TRACY PHELPS/Kimberly Kosirog City of Boca Raton		P		E	P	A	*P	ALT	P	P	P
BRUCE ROSENZWEIG Boca Raton Bicycle Club		P		A	A	A	A	*P	P	P	P
CRAIG PINDER/Kathleen Hatcher City of Boynton Beach		P		ALT	P	P	P	P	P	ALT	E
TED GOODENOUGH Disabled Community		A		P	P	E	P	P	P	P	P
JOANNA PELUSO Healthier Jupiter		-		-	*P	P	P	E	P	P	P
JOANN SKARIA City of Palm Beach Gardens		P		P	P	P	P	P	P	E	P
FADI NASSAR/Neil Wantz PBC Engineering		P		P	ALT	P	P	P	P	P	P
SALLY CHANNON/Jacey Biery PBC ERM		P		P	P	P	P	P	P	P	P
DAVID WILOCH/Michael Howe PBC Planning		P		P	ALT	P	P	*P	P	P	P
JEAN MATTHEWS/Casey Pranckun PBC Parks and Recreation		P		P	P	P	P	P	ALT	P	P
YASH NAGAL Palm Tran		E		P	P	P	P	P	P	A	P
MICHAEL OWENS/Joyell Shaw School District of Palm Beach County		P		P	P	P	P	P	P	P	ALT
RYAN HARDING/Christian Santa-Gonzalez Village of Wellington		ALT		A	ALT	ALT	ALT	P	ALT	ALT	P
JOHN ROACH City of West Palm Beach		P		P	P	P	P	P	P	P	P
LARRY WALLACE/Wibet Hay Florida Department of Transportation *Non-Voting Advisory Member*		E		P	P	E	P	P	E	P	ALT

P = Member Present Alt = Alternate Present E = Excused Absence A = Unexcused Absence
*New Appointment - = Member not assigned

EXHIBIT A (cont.)

OTHERS PRESENT	REPRESENTING
Victoria Williams	Florida's Turnpike Enterprise
Jacey Biery	Palm Beach County ERM
Michael Howe	Palm Beach County Planning
Khurshid Mohyuddin	Palm Beach County Planning
Alyssa Frank	Palm Beach TPA
Kelsey Peterson	Palm Beach TPA
Margarita Pierce	Palm Beach TPA
James Rinehart	Palm Beach TPA
Cassidy Sparks	Palm Beach TPA
Nick Uhren	Palm Beach TPA

PALM BEACH Transportation Planning Agency

TRANSPORTATION IMPROVEMENT PROGRAM

FY 2022-2026

Proposed for Adoption
December 16, 2021

Amendment #2

Requested FDOT amendment to modify 1 project and add 1 new project

PalmBeachTPA.org/TIP

EXISTING TIP

Phase	Fund Source	2022	2023	2024	2025	2026	Total
I-95 AT PGA BLVD - Proj# 4435901					**Length: 0.895 MI**	***SIS***	
Type of Work: ADD SPECIAL USE LANE					**Lead Agency: FDOT**		
					LRTP#: SIS018		
Description: Construct separated auxiliary lane.							
Notes: G/W 413265-1							
RRU	ACFP	0	250,000	0	0	0	**250,000**
CST	ACFP	0	0	5,848,501	0	0	**5,848,501**
Total		**0**	**250,000**	**5,848,501**	**0**	**0**	**6,098,501**
	Prior Years Cost	*829,227*	*Future Years Cost*			*Total Project Cost*	*6,927,728*

PROPOSED TIP

Phase	Fund Source	2022	2023	2024	2025	2026	Total
I-95 AT PGA BLVD - Proj# 4435901					**Length: 0.895 MI**	***SIS***	
Type of Work: ADD SPECIAL USE LANE					**Lead Agency: FDOT**		
					LRTP#: SIS018		
Description: Construct separated auxiliary lane.							
Notes: G/W 413265-1							
CST	ARPA	7,200,000	0	0	0	0	**7,200,000**
CST	DIH	68,376	0	0	0	0	**68,376**
CST	DDR	100,105	0	0	0	0	**100,105**
RRU	ACFP	0	250,000	0	0	0	**250,000**
Total		**7,368,481**	**250,000**	**0**	**0**	**0**	7,618,481
	Prior Years Cost	*829,227*	*Future Years Cost*			*Total Project Cost*	*8,447,708*

SIS Capacity

PROPOSED TIP

I-95 AT BOYNTON BEACH BLVD/SR-804 - Proj# 4358041
Type of Work: INTERCHANGE - ADD LANES
Length: 2.345 MI MI
Lead Agency: FDOT
LRTP#: SIS021
SIS

Description: Reconstruct interchange (add lanes) to increase capacity.

Phase	Fund Source	2022	2023	2024	2025	2026	Total
PE	NHPP	260	0	0	0	0	**260**
ROW	BNIR	1,499,732	5,708,830	0	0	0	**7,208,562**
ROW	ACNP	50,000	37,000	12,898,278	0	0	**12,985,278**
ROW	DIH	342,487	0	0	0	0	**342,487**
PE	ACNP	53,528	0	0	0	0	**53,528**
PDE	DIH	267	0	0	0	0	**267**
RRU	ACNP	0	0	2,300,000	50,000	0	**2,350,000**
CST	STED	0	0	0	26,064,000	0	**26,064,000**
CST	SA	0	0	0	147,407	0	**147,407**
CST	ACNP	0	0	0	9,317,422	158,681	**9,476,103**
Total		**1,946,274**	**5,745,830**	**15,198,278**	**35,578,829**	**158,681**	**58,627,892**

Prior Years Cost *Future Years Cost* *Total Project Cost* *58,627,892*

SIS Capacity

Florida Department of Transportation

RON DESANTIS
GOVERNOR

3400 West Commercial Boulevard
Fort Lauderdale, FL 33309

KEVIN J. THIBAULT, P.E.
SECRETARY

November 19, 2021

Mr. Nick Uhren, P.E.
Executive Director
Palm Beach Transportation Planning Agency
301 Datura Street
West Palm Beach, FL 33401

SUBJECT: Palm Beach Transportation Planning Agency
TIP Amendment Request FY 2021/22 – 2025/26
FM # 443590-1 SR-9/I-95 SOUTH BOUND ON-RAMP FROM PGA BLVD - ADD AUXILIARY LANE

Dear Mr. Uhren:

Pursuant to *Part IV – Chapter 5: Statewide and Local Transportation Improvement Programs (STIP and TIP) of the Work Program Instructions*, the Florida Department of Transportation (FDOT) requests your processing and approval of the attached amendment to the FY 2021/22 – 2025/26 Transportation Improvement Program. This amendment is required because of funding reallocation or cost changes and needs to be reflected in the TIP.

This Transportation Improvement Program Amendment should be consistent with the Adopted Long-Range Transportation Plan. The adopted TIP remains financially constrained. The TIP amendment is as follows:

	FM#	Project Title	Limits	Description	Project Length
EXISTING	443590-1	SR-9/I-95 SOUTH BOUND ON-RAMP FROM PGA BLVD - ADD AUXILIARY LANE	SR-9/I-95 SOUTH BOUND ON-RAMP FROM PGA BLVD - ADD AUXILIARY LANE	PROJECT COST	0.898 MI
	Phase	**Fund**	**FY 2022**	**FY 2023**	**FY 2024**
	CST	**ACFP**	**0**	**0**	**5,848,501**
		TOTAL			**5,848,501**

	FM#	Project Title	Limits	Description	Project Length
PROPOSED	443590-1	SR-9/I-95 SOUTH BOUND ON-RAMP FROM PGA BLVD - ADD AUXILIARY LANE	SR-9/I-95 SOUTH BOUND ON-RAMP FROM PGA BLVD - ADD AUXILIARY LANE	PROJECT COST	0.898 MI
	Phase	**Fund**	**FY 2022**		
	CST	**DIH**	**68,376**		
	CST	**ARPA**	**7,200,000**		
	CST	**DDR**	**100,105**		
		TOTAL	**7,368,481**		

If you have any questions or need additional information, please contact Marsha Taylor at (954) 777-4401.

Sincerely,

Mira Skoroden
Planning Specialist
District Four

The above TIP amendment was authorized to be included in the FY 2021/22-2025/26 Transportation Improvement Program.

MPO Chairman or Designee _____ Date _____ Signature _____

Florida Department of Transportation

RON DESANTIS
GOVERNOR

3400 West Commercial Boulevard
Fort Lauderdale, FL 33309

KEVIN J. THIBAULT, P.E.
SECRETARY

November 23, 2021

Mr. Nick Uhren, P.E.
Executive Director
Palm Beach Transportation Planning Agency
301 Datura Street
West Palm Beach, FL 33401

SUBJECT: Palm Beach Transportation Planning Agency
TIP Amendment Request FY 2021/22 – 2025/26
FM # 435804-1 SR-9/I-95 @ SR-804/BOYNTON BEACH BLVD INTERCHANGE

Dear Mr. Uhren:

Pursuant to *Part IV – Chapter 5: Statewide and Local Transportation Improvement Programs (STIP and TIP) of the Work Program Instructions*, the Florida Department of Transportation (FDOT) requests your processing and approval of the attached amendment to the FY 2021/22 – 2025/26 Transportation Improvement Program.

This amendment is required because the subject project needs to be reflected in the TIP. The project was temporarily removed from the TIP per the motion approved at the Palm Beach TPA Governing Board Meeting held on May 20, 2021, to facilitate further discussions and cost analysis with regards to comments from the Board associated with the desire to better address pedestrian and bicycle accommodations within the project. The FDOT has been in coordination with the City of Boynton Beach and TPA staff with regards to this request. An 8-ft (minimum) sidewalk is included on both sides of the roadway throughout the project limits, providing a facility for people on bicycles unwilling to ride on the roadway through the interchange and harmonizing with the programmed reconstruction of Boynton Beach Blvd to the east of this project. This amendment letter serves as a formal request to have the project re-added to the TIP thereby avoiding future impacts to the project schedule.

This Transportation Improvement Program Amendment should be consistent with the Adopted Long-Range Transportation Plan. The adopted TIP remains financially constrained. The TIP amendment is as follows:

	FM#	Project Title	Limits	Description	Project Length
PROPOSED	435804-1	SR-9/I-95 @ SR-804/ BOYNTON BEACH BLVD. INTERCHANGE	SR-9/I-95 @ SR-804/ BOYNTON BEACH BLVD.	RECONSTRUCT INTERCHANGE TO INCREASE CAPACITY	2.345 MI

Phase	Fund	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
PDE	DIH	267	0	0	0	0
PE	ACNP	53,528	0	0	0	0
PE	NHPP	260	0	0	0	0
ROW	ACNP	50,000	37,000	12,898,278	0	0
ROW	BNIR	1,499,732	5,708,830	0	0	0
ROW	DIH	342,487	0	0	0	0
RRU	ACNP	0	0	2,300,000	50,000	0
CST	ACNP	0	0	0	9,317,422	158,681
CST	SA	0	0	0	147,407	0
CST	STED	0	0	0	26,064,000	0
	TOTAL	1,946,274	5,745,830	15,198,278	35,578,829	158,681

If you have any questions or need additional information, please contact me at (954) 777-4480 or Marsha Taylor at (954) 777-4401.

Sincerely,

Christine M. Fasiska
Transportation Planning Manager
District Four

The above TIP amendment was authorized to be included in the FY 2021/22 – 2025/26 Transportation Improvement Program.

MPO Chairman or Designee _____ Date _____ Signature _____

FDOT

Drinking and Driving Don't Mix! DRIVE SOBER OR GET PULLED OVER

Atlantic Avenue (S.R. 806)
Project Development & Environment (PD&E) Study

806

FROM TURNPIKE TO JOG ROAD
PALM BEACH COUNTY, FLORIDA

Financial Project ID: 440575-3-22-02; ETDM No: 14423

TAC & CAC– December 1, 2021
BPTAC – December 2, 2021
TPA BOARD – December 16, 2021

1

FDOT

Agenda

- **Project overview and status update**
- **Typical Sections previously presented to TPA Board on June 17, 2021**
- **Update on Alternatives Public Workshop held June 28 and 29, 2021**
- **Newly developed Typical Sections (physically separated bicycle lanes)**

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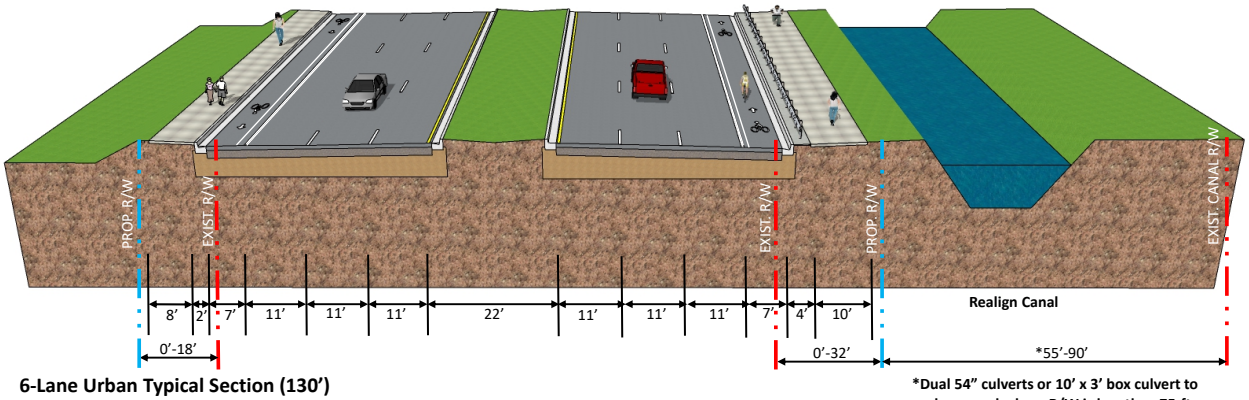
About the Project

- Atlantic Avenue From Turnpike to Jog Road
- Unincorporated Palm Beach County
- Proposed widening from four to six lanes
- Proposed bicycle and pedestrian features
- Approximately 1.8 miles in length
- Existing right-of-way varies from 113 to 175 feet
- Context Classification: C3C Suburan Comm.
- Urban principal arterial
- Posted speed limit is 45 mph

3

Typical Section Presented to TPA and Alternatives Public Workshop

FROM TURNPIKE TO CUMBERLAND DRIVE



6-Lane Urban Typical Section (130')

- **11' wide lanes**
- **22' wide median**
- **7' wide buffered bicycle lanes**
- **10' and 8' wide sidewalks**

***Dual 54" culverts or 10' x 3' box culvert to replace canal where R/W is less than 75-ft:**
1. Eagle Point Drive to Legends Way
2. 370-ft west of Michelangelo Boulevard to 75-ft east of Michelangelo Boulevard

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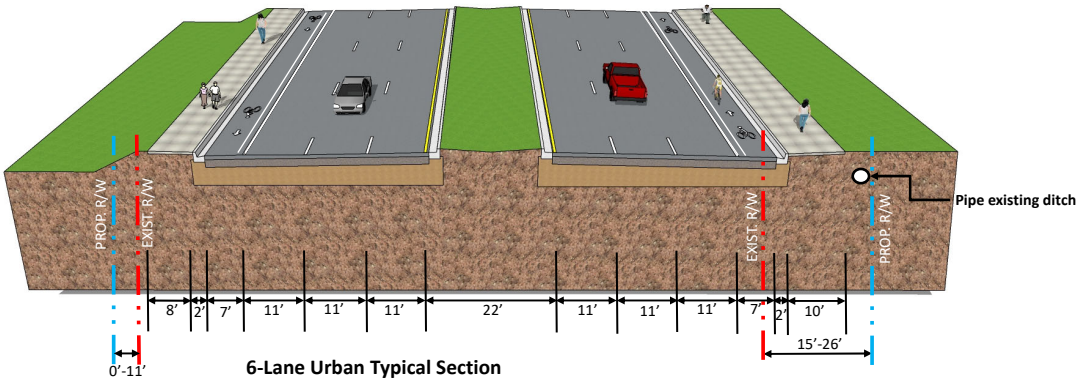
Typical Section Presented to TPA and Alternatives Public Workshop

FROM CUMBERLAND DRIVE TO JOG ROAD



6-Lane Urban Typical Section

- **11' wide lanes**
- **22' wide median**
- **7' wide buffered bicycle lanes**
- **10' and 8' wide sidewalks**

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TPA Board Presentation Feedback Received

1) Wider pathways

2) Potential shared use paths on both sides

3) Physically separated bike lanes along the corridor

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Alternatives Public Workshop Held

Date: June 28, 2021
Location: Online GoTo Webinar platform

Attendance: 9 members of study team and 16 members from the public

Key Comments Received:
1) The project is very much needed
2) Concern for impacts to driveways on the south side
3) Interest in plans for the L-34 Canal on the south side
4) Noise concerns

Date: June 29, 2021
Location: Hagen Ranch Road Branch Library
14350 Hagen Ranch Road
Delray Beach, FL 33446

Attendance: 11 members of study team and 18 members from the public (includes one Palm Beach County Commissioner and President of the Alliance of Delray)

Key Comments Received:
1) Concerns regarding increased noise levels
2) Desire to accelerate project from Turnpike to Cumberland Drive
3) Request to install "No U-Turn" sign westbound to southbound into Eagle Point
4) Request for traffic light at Eagle Point/Terra Nova
5) Preclude southbound to northbound U-Turns from Hagen Ranch Road at Atlantic Avenue

Physically separated bike lanes requested from Commissioner Sachs

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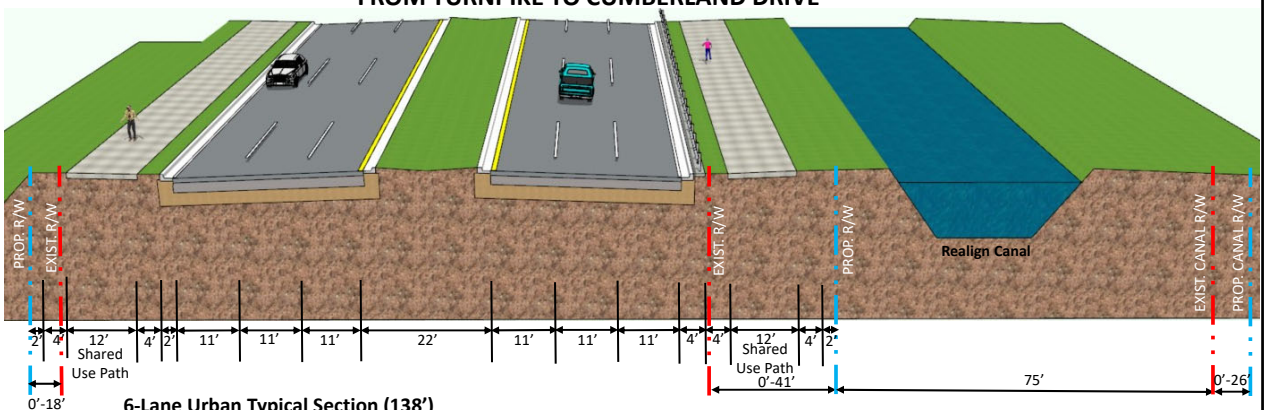
Alternative Typical Section 1
Shared use Paths

FROM TURNPIKE TO CUMBERLAND DRIVE



6-Lane Urban Typical Section (138')
- **11' wide lanes**
- **22' wide median**
- **12' wide shared use paths**

Note: The National Cooperative Highway Research Program (NCHRP) Report 633 found a 1% crash reduction on multi-vehicle crashes for every added foot of median width.

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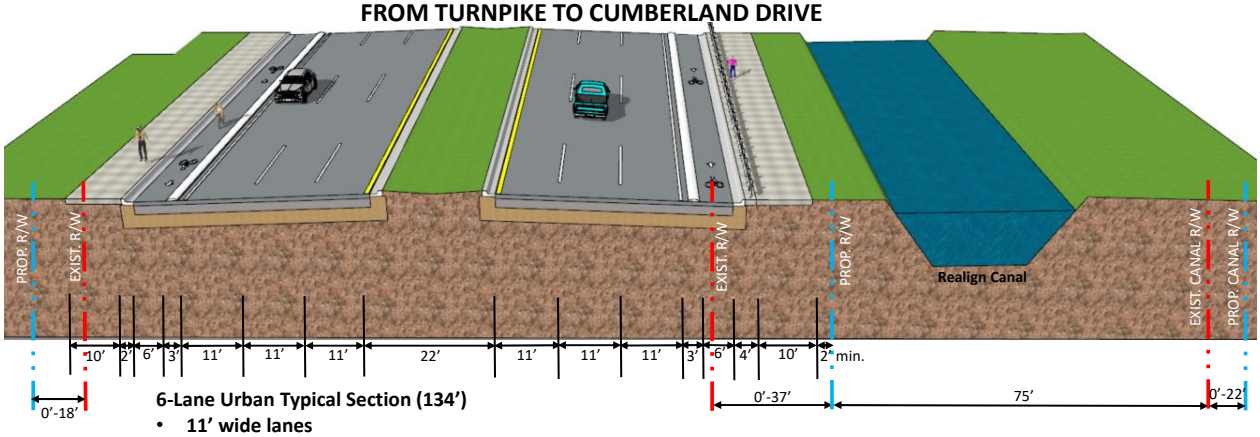
Alternative Typical Section 2
Physically Separated Bicycle Lanes

FROM TURNPIKE TO CUMBERLAND DRIVE



6-Lane Urban Typical Section (134')

- **11' wide lanes**
- **22' wide median**
- **10' wide sidewalks**
- **6' wide physically separated bicycle lanes**

Note: The National Cooperative Highway Research Program (NCHRP) Report 633 found a 1% crash reduction on multi-vehicle crashes for every added foot of median width.

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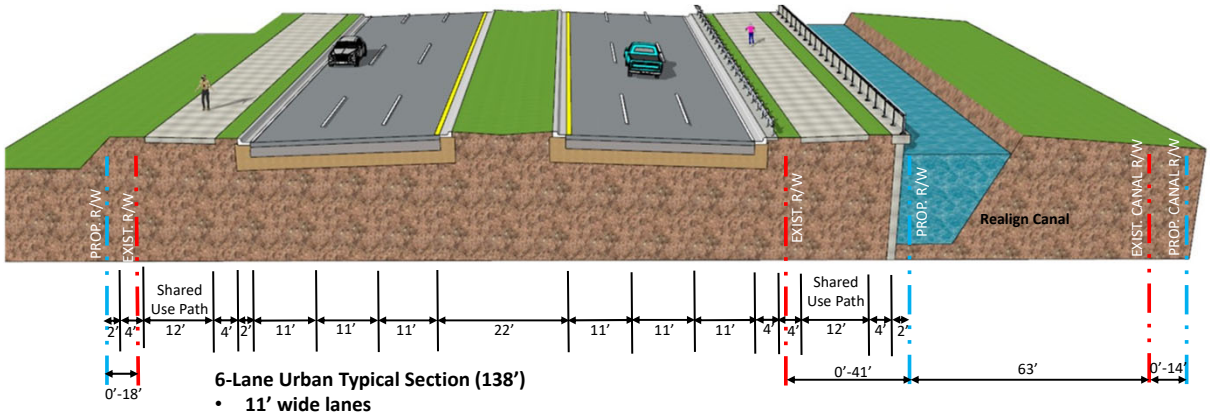
Alternative Typical Section 3
Shared Use Paths w/Sheet Pile wall

FROM TURNPIKE TO CUMBERLAND DRIVE



6-Lane Urban Typical Section (138')

- **11' wide lanes**
- **22' wide median**
- **12' wide shared use paths**
- **Sheet pile wall on north side of Canal**

Note: The National Cooperative Highway Research Program (NCHRP) Report 633 found a 1% crash reduction on multi-vehicle crashes for every added foot of median width.

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Mainline Typical Section Challenges

- Additional right-of-way
- Potential impacts to privacy walls and landscape buffers
- Impacts to golf course
- Impacts to Wood Stork habitat and mitigation if portions of the Canal are piped
- Increased impacts to Kings Point Shopping Center including parking at Walgreens
- Increased residential impacts between Cumberland Drive and east of Jog Road

Typical Section Challenges
Eagle Point

L-34 R/W LINES LEGEND:

Blue: Existing LWDD L-34 R/W Line
White: Shared Use Paths w/Sheet Pile
Green: Original Typical Section w/7-ft Buffered Bicycle Lanes
Orange: Physically Separated Bicycle Lanes
Purple: Shared Use Paths

Impacts shown are based on standard typical section design elements that meet FDOT criteria.

Typical Section Challenges
LWDD L-34 Canal

MINIMUM 75-ft L-34 CANAL R/W WIDTH REQUESTED BY LAKE WORTH DRAINAGE DISTRICT (LWDD)

Denotes Less than 75-ft

ORIGINAL TYPICAL SECTION W/7-ft BUFFERED BICYCLE LANES				
Location Range		Distance from Exist. ROW to LWDD L-34 Canal R/W		
		Range		Typical
From	To	From	To	
Best Fit Alignment				
Existing E-2E Bridge	Lexington Club Blvd.	76.65	77.82	77
Lexington Club Blvd.	Eagle Point Dr.	88.57	89.54	89
Eagle Point Dr.	Legends Way	55.05	77.22	62
Legends Way	Michelangelo Blvd.	70.71	80.04	79
Michelangelo Blvd.	Cumberland Dr.	80.2	82.04	80

TYPICAL SECTIONS W/SHARED USE PATHS				
Location Range		Distance from Exist. ROW to LWDD L-34 Canal R/W		
		Range		Typical
From	To	From	To	
Best Fit Alignment				
Existing E-2E Bridge	Lexington Club Blvd.	68.65	69.82	69
Lexington Club Blvd.	Eagle Point Dr.	80.57	81.54	81
Eagle Point Dr.	Legends Way	47.05	69.22	54
Legends Way	Michelangelo Blvd.	62.71	72.04	71
Michelangelo Blvd.	Cumberland Dr.	72.2	74.04	72

TYPICAL SECTION W/PHYSICALLY SEPARATED BICYCLE LANES				
Location Range		Distance from Exist. ROW to LWDD L-34 Canal R/W		
		Range		Typical
From	To	From	To	
Best Fit Alignment				
Existing E-2E Bridge	Lexington Club Blvd.	72.65	73.82	73
Lexington Club Blvd.	Eagle Point Dr.	84.57	85.54	85
Eagle Point Dr.	Legends Way	51.05	73.22	58
Legends Way	Michelangelo Blvd.	66.71	76.04	75
Michelangelo Blvd.	Cumberland Dr.	76.20	78.04	76

R/W is based on standard typical section design elements that meet FDOT criteria.

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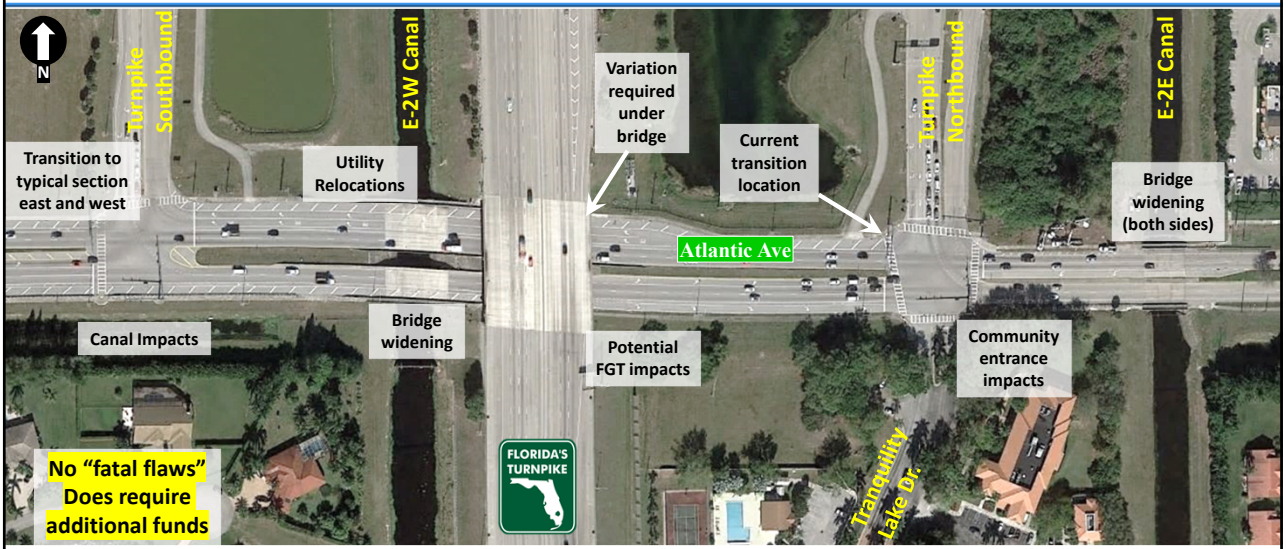
Typical Section Challenges
Turnpike



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Alternatives Comparison

Evaluation Category	'No-Build'	7-ft Buffered Bicycle Lanes w/Sidewalks	Shared Use Paths	Physically Separated Bicycle Lanes	Shared Use Paths w/Sheet Pile Walls
Vehicle Safety	🔴	🟢	🟢	🟡	🟢
Improve Traffic Flow	🔴	🟢	🟢	🟢	🟢
Construction Disruption	🟢	🟡	🟡	🟡	🟡
Access	🟢	🟢	🟢	🟢	🟢
Bike/Pedestrian Safety	🔴	🟡	🟢	🟢	🟢
R/W Impacts	🟢	🟡	🔴	🟠	🟡
Utility Impacts	🟢	🟡	🟠	🟠	🟠
Environment	🟡	🟡	🔴	🟠	🟠
Construction Cost	🟢	🟡	🟠	🟡	🔴

Preliminary: Subject to change

LEGEND: Worst 🔴 🟠 🟡 🟢 Best

Typical Section selection to be based on TPA's preference.
Engineering/environmental analysis will be conducted and public input will also need to be obtained for final approval.

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Jog Road Intersection Alternatives

Partial Displaced left Turns

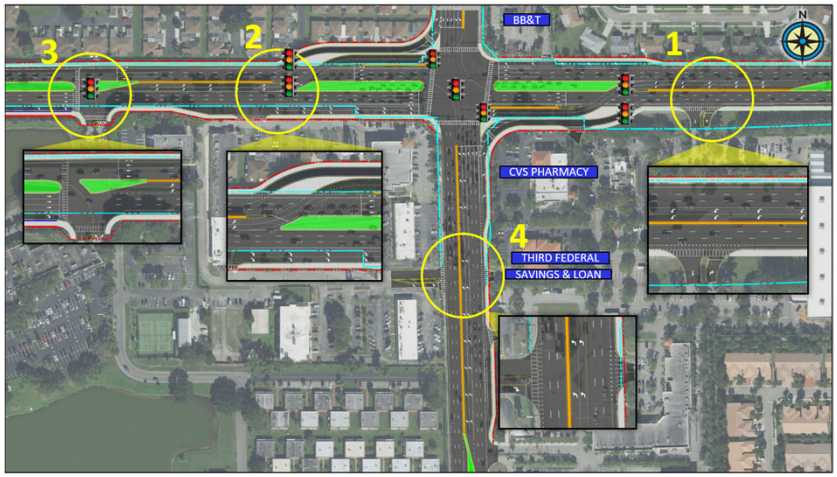
Not Supported due to the following:

- **R/W Impacts**
- **Access Issues**
- **Pedestrian Safety Concerns**
- **Violates Drivers Expectations**

Alternatives to be considered:

- **Dual left Turns**
- **Triple Left Turns**

Neither alternative will meet acceptable LOS in the design year 2045.



Jog Road Intersection Alternative
Partial Displaced Left Turn (PDLT)

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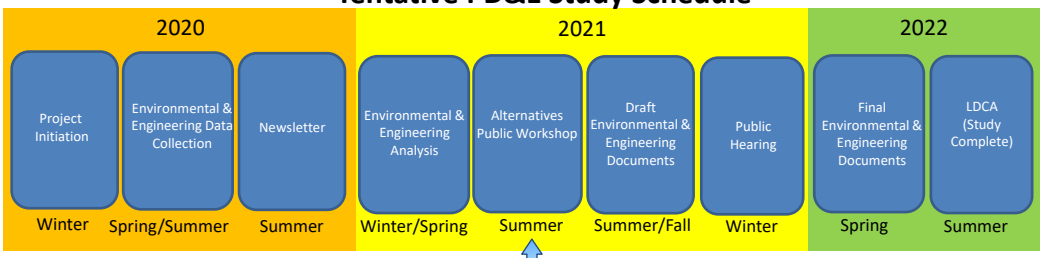
Timeline and Funding

- **Began Study: February 28, 2020**
- **Location and Design Concept Development Acceptance (LDCA): June 2022**

Tentative PD&E Study Schedule



- **Future phases include:**
  - **Design (FY 2022)**
  - **Right-of-Way (FY 2024)**
  - **Construction (unfunded/candidate for FY 2027)**

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Contacts

FDOT Project Manager

Thuc Le, P.E.
FDOT, District 4
(866) 336-8435, extension 4552
thuc.le@dot.state.fl.us

FDOT Communications Manager

Guillermo Canedo
FDOT, District 4
(866) 336-8435, extension 4302
guillermo.canedo@dot.state.fl.us

Thank You

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TPA RESOLUTION 2021-xx

A RESOLUTION AFFIRMING TPA SUPPORT FOR THE ATLANTIC AVENUE WIDENING PROJECT FROM FLORIDA'S TURNPIKE TO JOG ROAD

WHEREAS, the Palm Beach Metropolitan Planning Organization (MPO) doing business as the Palm Beach Transportation Planning Agency (TPA), is the designated and duly constituted body responsible for the urban transportation planning process for Palm Beach County; and

WHEREAS, the TPA's vision is to establish a safe, efficient, connected and multimodal transportation system; and

WHEREAS, the Florida Department of Transportation (FDOT) and the TPA have adopted a target of zero fatalities and serious injuries on the roadway network (Vision Zero), and the TPA has adopted performance targets to significantly increase the walking and bicycling commuter mode splits; and

WHEREAS, the TPA has prioritized the widening of Atlantic Avenue from four to six lanes from Florida's Turnpike to Jog Road (the "Project") and FDOT is conducting a Project Development and Environmental study for the Project; and

WHEREAS, the Project exists in a "C3" suburban context pursuant to the July 2020 FDOT Context Classification Guide; and

WHEREAS, to better accommodate users of all ages and abilities, the TPA has adopted Complete Streets Design Guidelines that identify a preference for separated bike lanes or shared use pathways in lieu of buffered bike lanes where feasible; and

WHEREAS, large, complicated intersections can often be high crash locations and barriers to connectivity for pedestrians and people on bicycles; and

WHEREAS, the build alternatives for the typical section of the Project include a 7-ft buffered bike lane adjacent to three vehicle lanes with a design speed of 45 mph, a 10-ft sidewalk on the south side of the roadway and an 8-ft sidewalk on the north side of the roadway; and

WHEREAS, the build alternatives for the Jog Road intersection include components which adversely impact pedestrian safety, bicycle safety, and private land ownership rights; and

WHEREAS, the TPA desires a balanced investment in traffic congestion mitigation at the Jog Road intersection that does not adversely impact pedestrian safety, bicycle safety, or private land ownership rights; and

WHEREAS, Section 223.2.3 of the 2021 FDOT Design Manual permits the substitution of a shared use path for a bicycle lane when the roadway design speed is 35 mph or greater, the context

classification is C3, separation can be maintained between bicycle and motorized traffic through intersections, and conflict points are minimal and mitigated.

NOW THEREFORE, BE IT RESOLVED BY THE PALM BEACH MPO, d/b/a PALM BEACH TRANSPORTATION PLANNING AGENCY, THAT:

SECTION 1. The foregoing recitals are hereby adopted and declared to be true and correct and are incorporated herein.

SECTION 2. The TPA Governing Board affirms its support for the Project as follows:

a. For the typical section, provide sidewalks or shared use pathways of at least 10 feet in width; and
b. If feasible without moving the construction start date or purchasing additional right-of-way, extend these facilities to SR 7 by including them in the Atlantic Avenue widening from SR 7 to Lyons Road (FM 229658-4) and from Lyons Road to Jog Road (FM 440575-1); and
c. For the Jog Road intersection, eliminate components of the build alternative with significant adverse impacts to pedestrian and bicycle safety or major right-of-way acquisitions that require the relocation of homes or businesses.

SECTION 3. This Resolution shall take effect upon adoption.

The foregoing Resolution was offered by _____ who moved its adoption. The motion was seconded by _____, and upon being put to a vote, the motion passed. The Chair thereupon declared the Resolution duly adopted this 16th day of December 2021.

PALM BEACH METROPOLITAN PLANNING ORGANIZATION, d/b/a PALM BEACH TRANSPORTATION PLANNING AGENCY

By: _____
Mayor Robert Weinroth, as its Chair

ATTEST:

_____
Margarita Pierce, TPA Executive Administrator

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

_____
Paul R. Gougelman, TPA General Counsel

1

WHAT IS A TDP?

- 10-year strategic plan for transit
  - Evaluates existing conditions
  - Determines future needs
  - Outlines phased service & implementation plans
  - Includes funded & unfunded priorities
  - Updated every 5 years
- FDOT requirement for funding
  - Palm Tran's TDP is due by December 15, 2021
- What a TDP is not:
  - Not a budget
  - Not a binding agreement

ACCELERATE 2031

Palm Tran Public Transportation

2

TDP Purpose

Transit agency guidance document
- Planning
- Development
- Operations

Identify public transportation needs

Define alternative solutions

Set the vision…

3

3

TDP Public Outreach

12,000+ people engaged through this process

~35 Stakeholder Interviews

6 Public Workshops

3 Surveys
Public Opinion Poll
Transit Needs
Operator

8 Discussion Groups
3 Operator
4 Business
1 Connection Riders

Web/Email Social Media Outreach

palmtran.org/transit-development-plan

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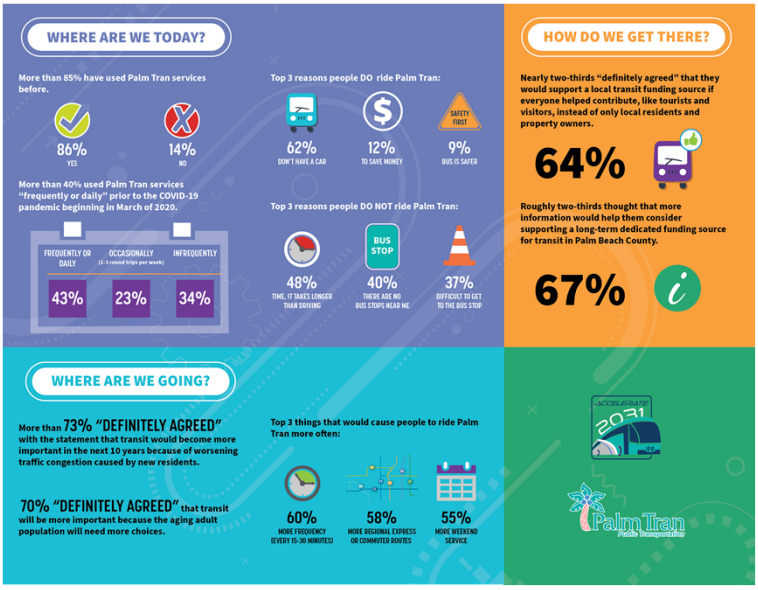
Online Transit Needs Survey

754 Responses



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Online Transit Needs Survey

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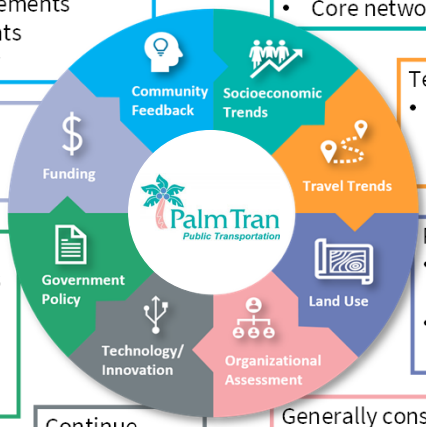
Situation Appraisal

Improve frequency, rider experience & travel times
- Core network improvements
- Bus stop improvements
- Transit Signal Priority

Continued growth & aging population
- Higher demand for paratransit
- Core network improvements

Loss of revenue & higher labor costs
- Dedicated funding source

Telecommuting
- Focus resources on core network and where services are heavily utilized



Rebuild ridership post-COVID
- Core network improvements
- Transit marketing & education campaign
- Park-and-ride study
- Bus stop improvements

Redevelopment & suburban pattern
- Core network improvements in highest-density areas
- Challenge to Palm Tran providing efficient & attractive services

Continue upgrades & improve rider experience

Generally consistent with peer organizations.
- No recommended changes.

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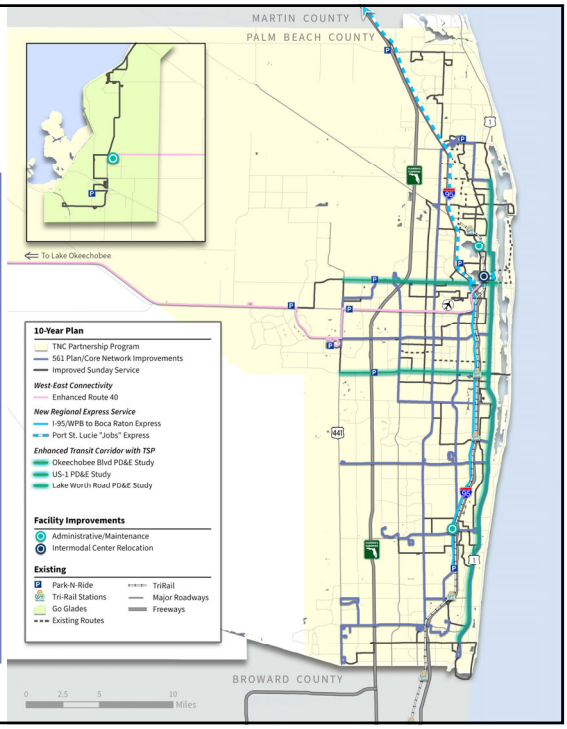
10-Year Needs

Public transit needs identified for the next 10 years through analysis, outreach, and other TDP tasks.

Service Needs
- 561 Plan/Core Network Routes (15-minute headways)
- Premium Transit/Enhanced Transit Corridors (561 Plan)
- Span & Frequency Improvements (Non-Core Network)
  - Standardize headways (15, 30 & 60)
  - Sunday service all routes & expanded hours
- West-East connectivity (Route 40 to 30-minutes)
- New Regional Express Service
  - Port St. Lucie to WPB
  - West Palm Beach to Boca Raton
- On-Demand Transit Services
  - Mobility on Demand
    - Continue Go Glades
    - Priority new MOD areas (TBD)
  - TNC Partnership Program



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10-Year Needs (continued)

Other Capital & Infrastructure Needs
- Bus Radio System Upgrades
- Maintenance Facility Equipment Upgrades
- Fleet and Asset Management Software Upgrades
- North Facility Electrical Upgrades
- North County Facility Planning & Design Study
- Bus Stop Shelters
- Bus Stop Infrastructure & Accessibility Improvements
- Park-and-Ride Facility Study
- Fleet Replacement & Acquisition Program

Policy Needs
- Infrastructure & Equipment for Continued COVID-19 Safety

Technology Needs
- Transit Signal Priority (TSP)
- Fare Technology Interoperability
- Electrification
- Bus Stop Technology Improvements
- Wi-Fi Enabled Fleet

Plans/Studies
- FY 2027-2036 TDP Update
- School Coordination Study
- Connection Facility Assessment Study

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10-Year Transit Service Needs Evaluation Process

Needs Identification Process

Operating Environment
Public Involvement
Transit Demand Assessment

Project Review Committee
10-Year Transit Needs
Situation Appraisal

Needs Evaluation Process

Public Support
Ridership Potential
Connectivity
Financial Feasibility

Priority Ranking of Improvements

Proposed Improvement	Rank
Sunday Service Span Improvements	1
Regional Express Service	2
West-East Connectivity	3
561 Plan/Core Network Improvements	4
On Demand Transit Services	4
TNC* Partnership Program	6
Premium Transit Service	7
Non-Core Network Improvements	8

**TNC = Transportation Network Companies*

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10-Year Plan Summary

Service Improvements

	Description	Implementation Year(s)	Annual Operating $ (2022$)	Operating Funding Source(s)	Total Capital $ (2022$)	Capital Funding Source(s)
Existing Service Improvements	Route 40 Frequency Improvements	2023-2031	$ 515,351	Unfunded/TIRRF/Other Local Funding	$ 1,711,559	Federal Grants
	Sunday Service Improvements	2023-2031	$ 1,501,291	Unfunded/TIRRF/Other Local Funding	$ -	Federal Grants
	561 Plan/Core Network – Route 1	2023-2031	$ 1,756,619	Unfunded/TIRRF/Other Local Funding	$ 3,423,118	Federal Grants
	561 Plan/Core Network – Route 43	2023-2031	$ 1,863,234	Unfunded/TIRRF/Other Local Funding	$ 1,141,039	Federal Grants
	561 Plan/Core Network – Route 3	2024-2031	$ 3,113,338	Unfunded/TIRRF/Other Local Funding	$ 4,564,157	Federal Grants
	561 Plan/Core Network – Route 2	2025-2031	$ 2,832,257	Unfunded/TIRRF/Other Local Funding	$ 5,134,677	Federal Grants
	561 Plan/Core Network – Route 62	2026-2031	$ 1,831,648	Unfunded/TIRRF/Other Local Funding	$ 1,141,039	Federal Grants
	561 Plan/Core Network – Route 46	2027-2031	$ 1,008,571	Unfunded/TIRRF/Other Local Funding	$ 1,711,559	Federal Grants
	561 Plan/Core Network – Route 73	2027-2031	$ 2,363,361	Unfunded/TIRRF/Other Local Funding	$ 3,423,118	Federal Grants
	561 Plan/Core Network – Route 81	2028-2031	$ 2,149,766	Unfunded/TIRRF/Other Local Funding	$ 2,852,598	Federal Grants
	561 Plan/Core Network – Route 91	2028-2031	$ 304,249	Unfunded/TIRRF/Other Local Funding	$ -	Federal Grants
	Spare Buses for Service Improvements	Various	$ -	-	$ 5,705,197	Federal Grants
New Regional Express	Port St. Lucie "Jobs" Express – Phase 1	2022-2025	$ 183,784	Service Development	$ 1,711,559	Federal Grants
	Port St. Lucie "Jobs" Express – Phase 2	2025-2026	$ 367,567	Service Development	$ -	Federal Grants
	I-95/WPB to Boca Raton Express	2026-2031	$ 559,122	Service Development	$ -	Federal Grants
On-Demand Services	TNC Partnership Pilot Program	2022-2031	$ 165,000	Unfunded/TIRRF/Other Local Funding	$ -	
	MOD Priority Area 1 (Go Glades*)	2022-2031	$ 2,167,641	Unfunded/TIRRF/Other Local Funding	$ -	
	MOD Priority Area 2 Pilot	2024-2031	$ 1,471,725	Unfunded/TIRRF/Other Local Funding	$ 990,000	Federal Grants
	MOD Priority Area 3 Pilot	2025-2031	$ 1,471,725	Unfunded/TIRRF/Other Local Funding	$ 990,000	Federal Grants
	MOD Priority Area 4 Pilot	2026-2031	$ 1,471,725	Unfunded/TIRRF/Other Local Funding	$ 990,000	Federal Grants
	MOD Priority Area 5 Pilot	2027-2031	$ 1,471,725	Unfunded/TIRRF/Other Local Funding	$ 990,000	Federal Grants
	**Total Annual Operating $:		$ 28,018,348	Total Capital $:	$ 36,479,621	

TIRRF – Transit Innovation and Ridership Recovery Fund
**Assumes cost of directly operating Go Glades services starting in 2024.*
***Total cost reflects only the full regional express bus service to be implemented in 2026 and not the costs of the interim phases.*

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10-Year Plan Summary

Plans, Capital/Infrastructure & Technology Improvements

	Description	Implementation Year(s)	Total Operating $ (2022$)	Total Capital $ (2022$)	Funding Source(s)
Plans/Studies	Connection Facility Assessment Study	2022	$ 100,000	$ -	Federal Grants
	School District Coordination Study	2022	$ 60,000	$ -	Federal Grants
	TDP Major Update (FYs 2027-2036)	2026	$ 400,000	$ -	Federal/State Grants
	Okeechobee Blvd PD&E Study	2027	$ 966,760	$ -	TPA Funds
	US-1 PD&E Study	2029	$ 3,741,819	$ -	TPA Funds
	Lake Worth Rd PD&E Study	2031	$ 776,804	$ -	TPA Funds
	Total Operating $ for Plans/Studies:		$ 6,045,384		
Other Capital/Infrastructure	North County Facility Electrical Upgrades	2022	$ -	$ 700,000	Federal Grants
	North Facility Parking Lot Restoration	2022	$ -	$ 2,100,000	Federal Grants
	Bus Stop Improvements (Programmed in TIP)	2022, 2024	$ -	$ 3,780,655	Federal/State Funds
	561 Plan Corridors – Enhanced Transit Shelters	2022-2026	$ -	$ 14,553,400	Federal/State Funds
	Fleet Replacement Program – Fixed Route	2022-2028	$ -	$ 67,321,320	Federal Grants
	Fleet Replacement Program – Connection	2022-2031	$ -	$ 36,052,000	Ad Valorem
	South/North/West Facility Maintenance Upgrades	2023-2026	$ -	$ 9,014,663	Federal Grants
	Palm Tran Bus Stop Shelter Program	2023-2031	$ -	$ 7,650,000	Federal Grants
	North Facility Planning & Design Study	2027-2028	$ -	$ 5,000,000	Unfunded
	Total Capital $ for Other Capital/Infrastructure:		$	146,172,038	
Technology	Bus Radio System Upgrades	2022	$ -	$ 975,000	Federal Grants
	Fleet Software/Hardware Upgrades	2022	$ -	$ 1,000,000	Federal Grants
	Enterprise Asset Management Software	2022	$ -	$ 1,300,000	Federal Grants
	Electrification Master Plan	2022	$ -	$ 500,000	Federal Grants
	Transit Signal Priority – US-1	2023	$ -	$ 2,000,000	TPA Funds
	Bus Stop Real Time Arrival Signage	2023-2031	$ -	$ 1,350,000	Federal Grants
	Electric Vehicles / Charging Stations	2024-2025	$ -	$ 9,336,388	TPA Funds/ Other Local Funding
	Wi-Fi Enabled Fleet - Connection & Go Glades (Avg Annual $)	2024-2031	$ 225,630	$ -	Unfunded/Other Local Funding
	Transit Signal Priority – Okeechobee Blvd/SR-7	2024	$ -	$ 1,000,000	TPA Funds
	Transit Signal Priority – Lake Worth Rd/SR-7	2027	$ -	$ 1,000,000	Federal Grants/Other Local Funding
	Total Operating $/ Total Capital $ for Technology:		$ 225,630	$ 18,461,388	

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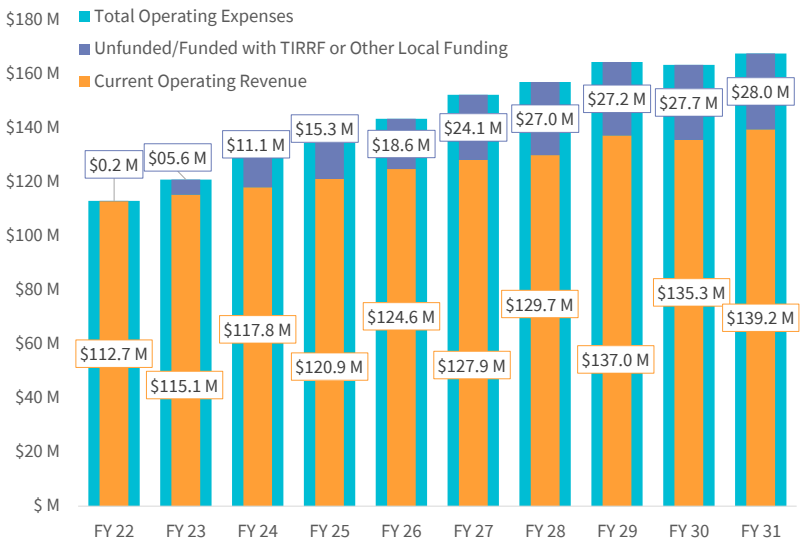
10-Year Plan Summary



10-Year Total
Costs = $1.449B
Revenue = $1.321B
Unfunded/Funded Other = $127M

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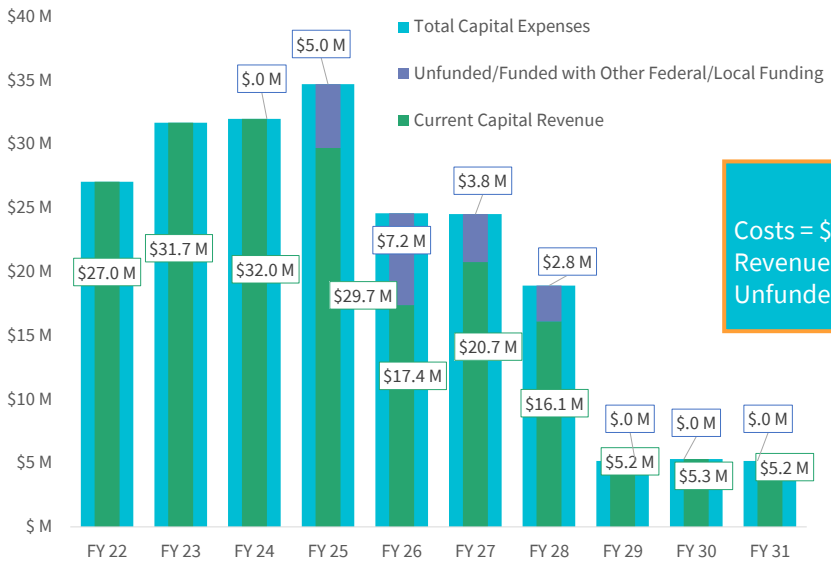
10-Year Plan Summary



10-Year Total
Costs = $209M
Revenue = $190.2M
Unfunded/Funded Other = $18.8M

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Next Steps

- Board of County Commission approval of TDP on December 7th
- Submit Final TDP to FDOT by December 15th

Questions?

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OKEECHOBEE BLVD & SR 7
MULTIMODAL CORRIDOR STUDY

TPA Committee and Board Meetings
December 2021

PALM BEACH Transportation Planning Agency

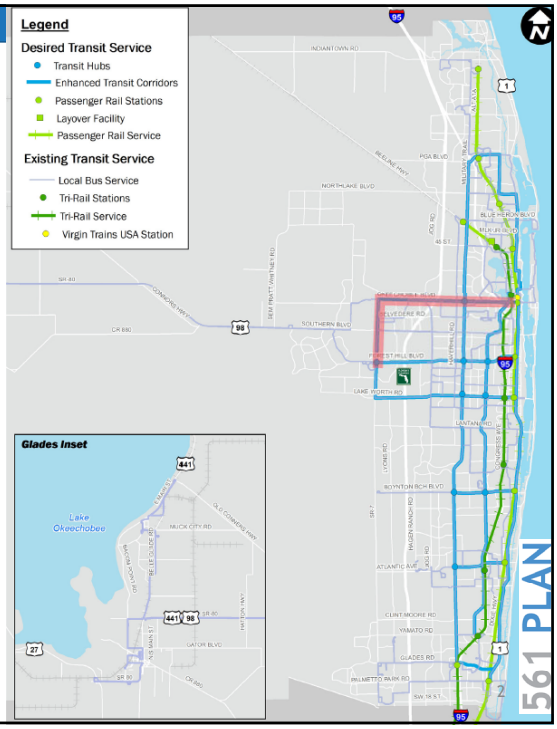
1

Study Purpose

Evaluate & Recommend Alternatives

- Pedestrian + Bicycle Facilities
- Transit Service
- Transit Supportive Land Uses
- Single Occupancy Vehicles

Safe - Efficient - Connected



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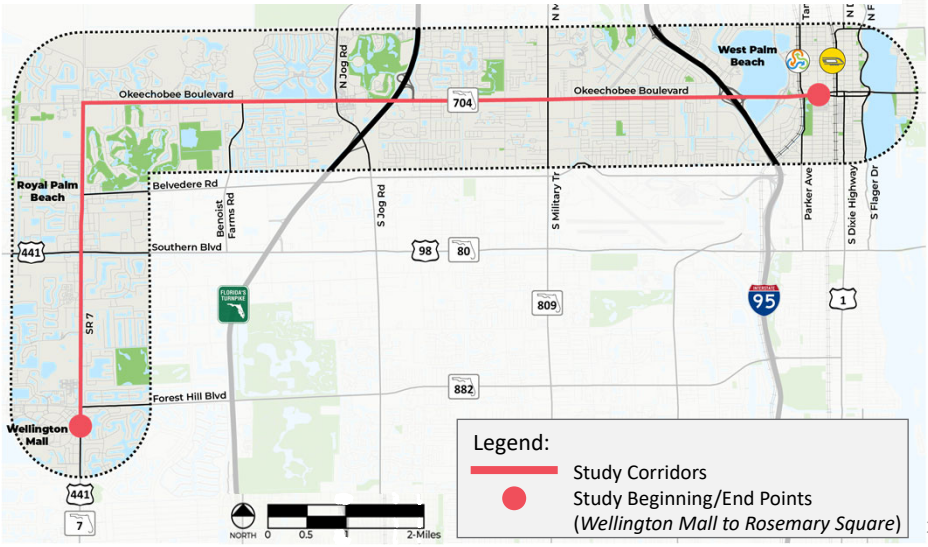
Study Limits

42,000 Residents

14,000 Households

46,000 Jobs

(within 0.5 mile of corridor)



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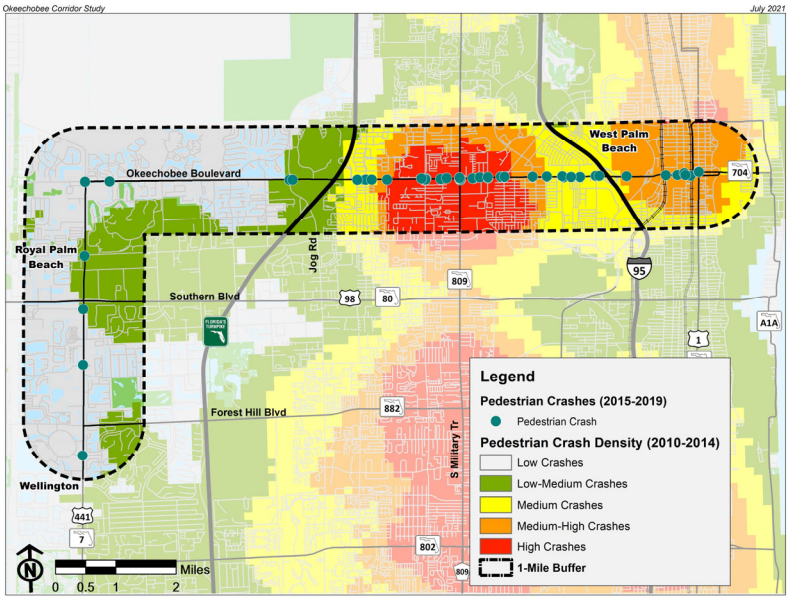
Safety

- Crash Data Analysis
  - Review of Pedestrian and Bicycle Crashes
  - Pedestrian High Crash Corridor between the Turnpike and I-95



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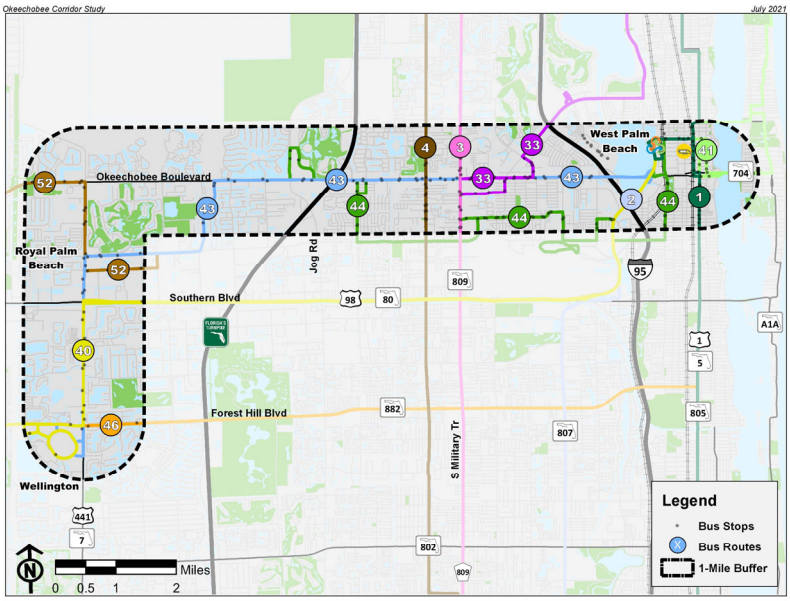
Transit

- Two transit hubs
  - The Mall at Wellington Green
  - Intermodal Transit Center
- Route 43
  - Okeechobee Blvd trunk line
  - No service west of Benoist Farms Road
  - Highly productive route
  - 30-minute headways

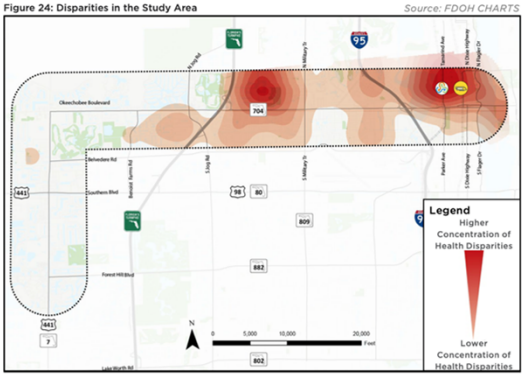


Health and Social Vulnerability

Health Disparities

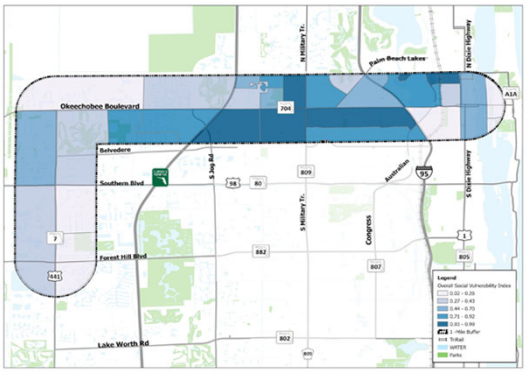
Figure 24: Disparities in the Study Area

Source: FDOH CHARTS



Overall Social Vulnerability

Source: CDC ATSDR SVI Index

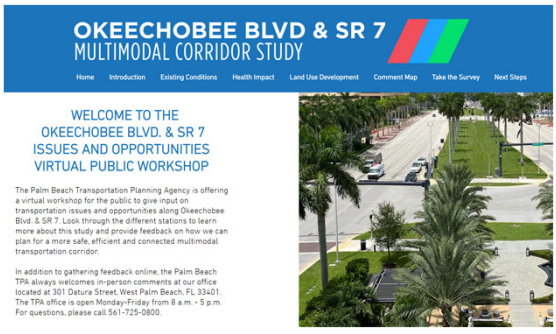


Study Components

- Land Use & Economic Development Analysis
- Transit Analysis
- Roadway Analysis
- Health Impact Assessment
- Public & Stakeholder Engagement

Public Workshop #1

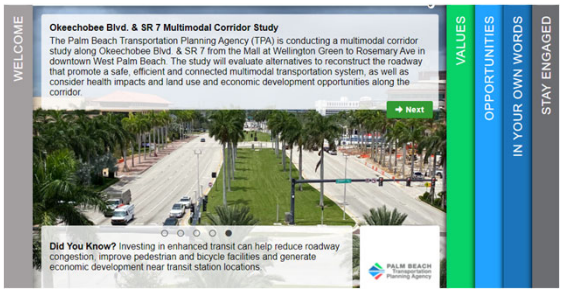
- Engagement period open **Aug 19th – Nov 12th**
- **Issues and opportunities focus**
- Virtual and In-person **Workshop** deployed to share information
  - Feedback requested via an **interactive map and survey**
- Engagement by the numbers
  - ~40 in-person visitors
  - **1,326 workshop views /** 508 unique
  - 809 survey visits / 236 surveys taken
  - 101 comments on the interactive map

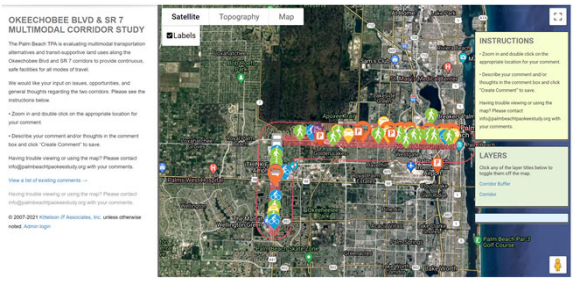


- Tactics used to spread the word about the study and workshop
  - Social media
  - Newsletters
  - Direct requests to local agencies
  - HOA meetings
  - Stakeholder interviews
  - School outreach
  - Tri-rail Station Greeters
  - Board and Committee meetings
  - TPA Front Lobby
  - Local news media

Resulting Top 3 Priorities

- Congestion Relief
- Health and Safety
- Mobility Choices





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Baseline Traffic Inventory

- Daily
  - 2019 (Base Year)
    - All segments operate at LOS C/D
  - 2045 (LRTP Horizon Year)
    - One segment operates at LOS F
      - Okeechobee Blvd from I-95 to Australian Ave (1)
- Peak Hour
  - 2019 (Base Year)
    - All segments operate at LOS C/D
  - 2045 (Horizon Year)
    - Segments that operate at LOS F
      - Okeechobee Blvd from SR 7 to Military Trail
      - Okeechobee Blvd from I-95 to Australian Ave (1)

(1) = free flow segment

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Goals & Objectives Guiding the Evaluation

Allocate roadway space appropriately for non-motorized users, transit, and single occupancy vehicles

- Provide **safe facilities** for **the most vulnerable users**
- **Maximize corridor throughput** with emphasis **on shared mobility**
- **Minimize travel time and delay** for all users
- **Increase access** to education, health care, and economic opportunity

Maximize return on any investment in enhanced transit service area

- Locate **transit stops at major activity centers**
- **Provide enhanced amenities** at enhanced transit areas
- **Provide walkable and bikeable environments** for first & last mile connection
- Provide capital investments that **promote redevelopment/infill development supportive of transit**

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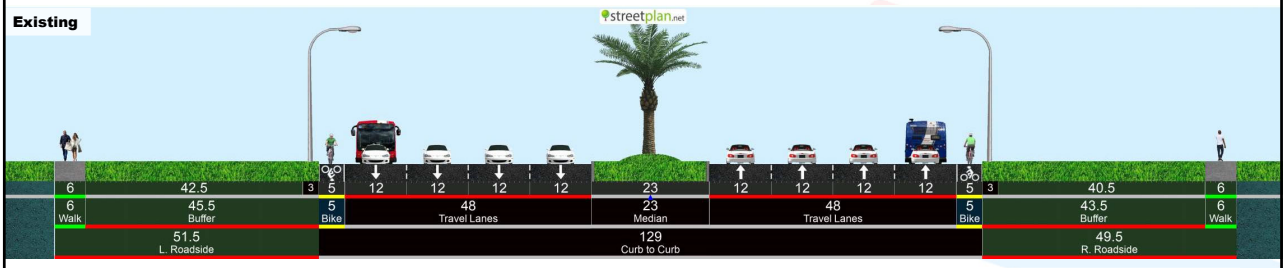
No Build / No Action



Goal: Allocate roadway space appropriately for non-motorized users, transit, & single occupancy vehicles

- X Provide **safe facilities** for **the most vulnerable users**
- X **Maximize corridor throughput** with emphasis **on shared mobility**
- X **Minimize travel time and delay** for all users
- X **Increase access** to education, health care, and economic opportunity

Goal: Maximize return on any investment in enhanced transit service area

- X Locate **transit stops at major activity centers**
- X **Provide enhanced amenities** at enhanced transit areas
- X **Provide walkable and bikeable environments** for first & last mile connection
- X Provide capital investments that **promote redevelopment/infill development supportive of transit**

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Mixed Traffic Bus with Limited Stops

Goal: Allocate roadway space appropriately for non-motorized users, transit, & single occupancy vehicles

- ✓ Provide **safe facilities** for **the most vulnerable users**
- X **Maximize corridor throughput** with emphasis **on shared mobility**
- X **Minimize travel time and delay** for all users
- X **Increase access** to education, health care, and economic opportunity

Goal: Maximize return on any investment in enhanced transit service area

- ✓ Locate **transit stops at major activity centers**
- ✓ **Provide enhanced amenities** at enhanced transit areas
- ✓ **Provide walkable and bikeable environments** for first & last mile connection
- X Provide capital investments that **promote redevelopment/infill development supportive of transit**

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Business Access and Transit (BAT) curbside lanes

Goal: Allocate roadway space appropriately for non-motorized users, transit, & single occupancy vehicles

- ✓ Provide **safe facilities** for **the most vulnerable users**
- ✓ **Maximize corridor throughput** with emphasis **on shared mobility**
- ✓ **Minimize travel time and delay** for all users
- X **Increase access** to education, health care, and economic opportunity

Goal: Maximize return on any investment in enhanced transit service area

- ✓ Locate **transit stops at major activity centers**
- ✓ **Provide enhanced amenities** at enhanced transit areas
- ✓ **Provide walkable and bikeable environments** for first & last mile connection
- X Provide capital investments that **promote redevelopment/infill development supportive of transit**

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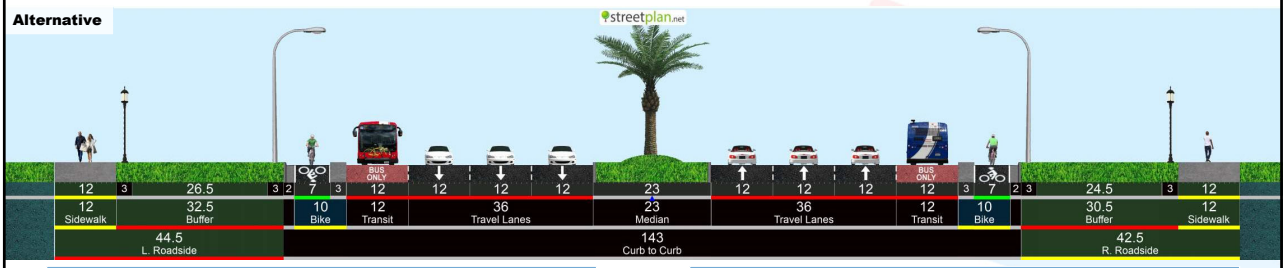
Curbside dedicated-lane Bus Rapid Transit (BRT)



Goal: Allocate roadway space appropriately for non-motorized users, transit, & single occupancy vehicles

- ✓ Provide **safe facilities** for **the most vulnerable users**
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- ● **Minimize travel time and delay** for all users
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Goal: Maximize return on any investment in enhanced transit service area

- ✓ Locate **transit stops at major activity centers**
- ✓ **Provide enhanced amenities** at enhanced transit areas
- ✓ **Provide walkable and bikeable environments** for first & last mile connection
- ✓ Provide capital investments that **promote redevelopment/infill development supportive of transit**

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Center platform dedicated-lane BRT

Goal: Allocate roadway space appropriately for non-motorized users, transit, & single occupancy vehicles

- ✓ Provide **safe facilities** for **the most vulnerable users**
- ✓ **Maximize corridor throughput** with emphasis **on shared mobility**
- ● **Minimize travel time and delay** for all users
- ✓ **Increase access** to education, health care, and economic opportunity

Goal: Maximize return on any investment in enhanced transit service area

- ✓ Locate **transit stops at major activity centers**
- ✓ **Provide enhanced amenities** at enhanced transit areas
- ✓ **Provide walkable and bikeable environments** for first & last mile connection
- ✓ Provide capital investments that **promote redevelopment/infill development supportive of transit**

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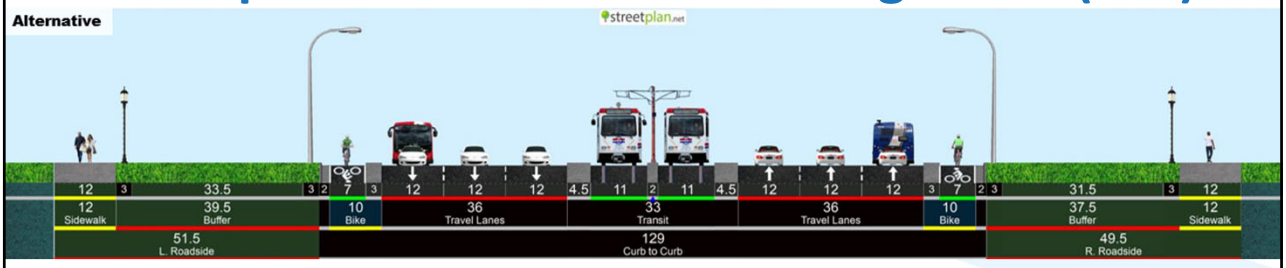
Center platform dedicated-lane Light Rail (LRT)



Goal: Allocate roadway space appropriately for non-motorized users, transit, & single occupancy vehicles

- ✓ Provide **safe facilities** for **the most vulnerable users**
- ✓ **Maximize corridor throughput** with emphasis **on shared mobility**
- ● **Minimize travel time and delay** for all users
- ✓ **Increase access** to education, health care, and economic opportunity

Goal: Maximize return on any investment in enhanced transit service area

- ✓ Locate **transit stops at major activity centers**
- ✓ **Provide enhanced amenities** at enhanced transit areas
- ✓ **Provide walkable and bikeable environments** for first & last mile connection
- ✓ Provide capital investments that **promote redevelopment/infill development supportive of transit**

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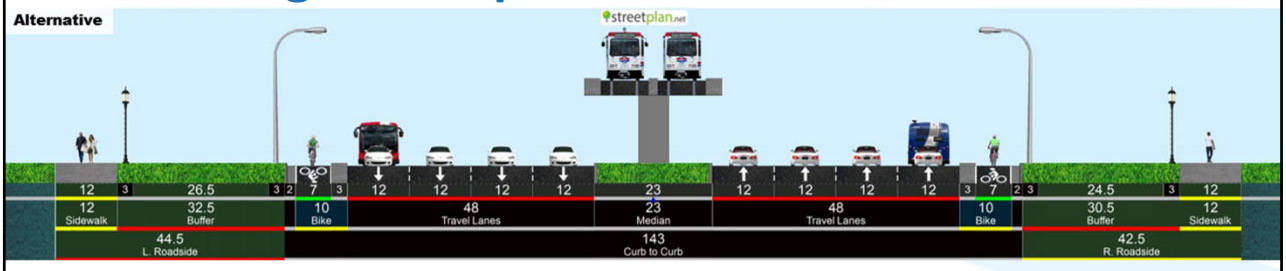
Elevated grade-separated LRT



Goal: Allocate roadway space appropriately for non-motorized users, transit, & single occupancy vehicles

- ✓ Provide **safe facilities** for **the most vulnerable users**
- ✓ **Maximize corridor throughput** with emphasis **on shared mobility**
- ✓ **Minimize travel time and delay** for all users
- ✓ **Increase access** to education, health care, and economic opportunity

Goal: Maximize return on any investment in enhanced transit service area

- ✓ Locate **transit stops at major activity centers**
- ✓ **Provide enhanced amenities** at enhanced transit areas
- ✓ **Provide walkable and bikeable environments** for first & last mile connection
- ✓ Provide capital investments that **promote redevelopment/infill development supportive of transit**

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Conceptual Alternatives Evaluation

Proposed Alternative	Goal 1 (Objectives Achieved)	Goal 2 (Objectives Achieved)	Travel Time	Estimated Weekday Ridership	Annual O&M Cost	Estimated Total Capital Cost
No Build	0/4	0/4	51.0 min	3,200	$2,790,000	$0
Mixed Traffic bus w/Limited Stops	1/4	3/4	46.5 min	2,800-3,400	$4,470,000	$77,118,000
BAT Curbside Lane	3/4	3/4	43.1 min	3,200-3,800	$4,780,000	$102,178,000
Curbside Dedicated-Lane BRT	3.5/4	4/4	40.5 min	3,900-5,400	$4,690,000	$156,684,000
Center Platform Dedicated BRT	3.5/4	4/4	40.0 min	4,300-6,000	$4,660,000	$276,168,000
Center Platform Dedicated-Lane LRT	3.5/4	4/4	37.7 min	6,300-8,600	$13,290,000	$856,661,000
Elevated Grade Separated LRT	4/4	4/4	27.2 min	8,600-10,300	$16,740,000	$1,899,655,000

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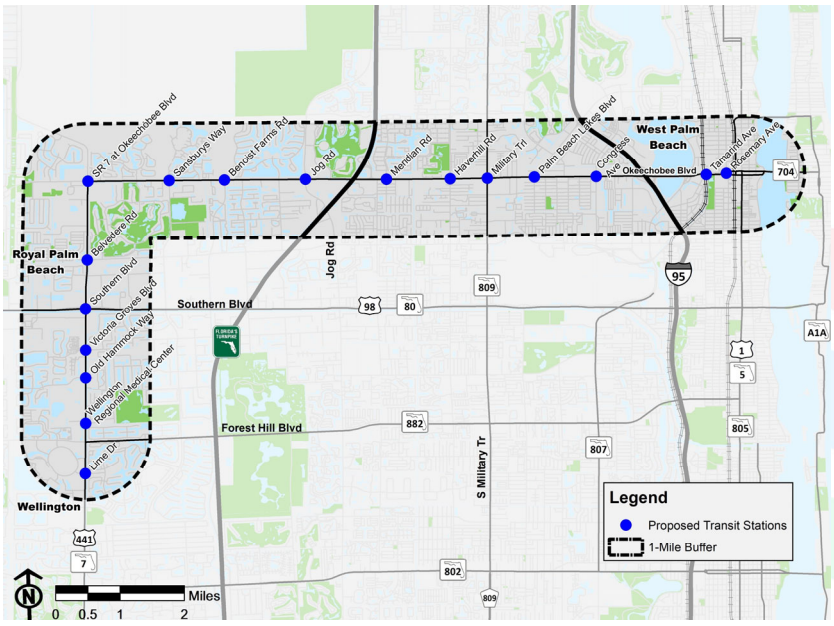
Proposed Station Locations



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How Does Infrastructure and Land Use Work Together?

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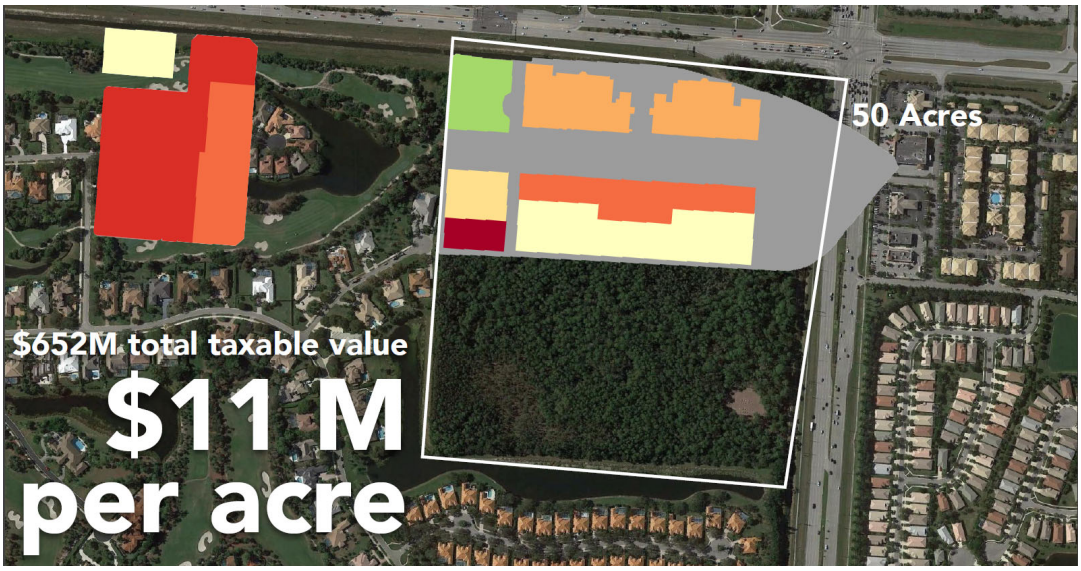
Demonstrating Productivity

22

Demonstrating Productivity



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Next Steps

Technical Tasks:

- Transit and roadway design alternatives
- HIA coordination and analysis
- Land Use coordination and qualitative analysis

Recent and Upcoming Meetings:

- November 2021
  - HIA Meeting #3 Nov. 30th
- December 2021
  - **2nd Virtual Public Workshop December 4th**
  - Study update presentation to TPA Committees and Board
- January and February 2022
  - Land Use and Economic Development Final Interviews Jan. 10th
  - **SAWG Meeting #4 Jan. 13th**
  - HIA final recommendations/Meeting #4 Feb. 8th
- March 2022 – Final recommendations presented to TPA Committees and Board

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PALM BEACH Transportation Planning Agency

FY 2021 Annual Listing of Obligated Projects

Both 23 USC §134 and §339.175, Florida Statutes, mandate that Metropolitan Planning Organizations (MPO) publish the annual listing of projects for which federal funds have been obligated in the preceding year. 23 CFR §450.334 further stipulates that the listing shall identify for each project the amount of Federal funds requested in the TIP, the Federal funding that was obligated during the preceding year, and the Federal funding remaining and available for subsequent years.

The Palm Beach TPA created the attached summary listing of projects where total Federal funding requested in the TIP differed from the Federal funding that was obligated by at least $500,000.

In general, federal funds are obligated to transportation projects through the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). According to FHWA definition, an obligation is a legal commitment: the Federal government's promise to pay a State for the Federal share of a project's eligible cost. For a project funded by FHWA funds, this commitment occurs when FHWA approves the project and executes the project agreement. For a project funded by FTA funds, this commitment occurs at the time the FTA grant is awarded. Alternatively, funding can also be "de-obligated". A de-obligation means money previously obligated is removed from the project to reflect changes to the project cost, delay, or cancellation.

Below is a FHWA table and an FTA table showing the amount of funds programmed in the TPA's Transportation Improvement Program (TIP) for Fiscal Year 2021, the amount obligated for Fiscal Year 2021, the difference, and the amount de-obligated.

FHWA FY 2021 Programmed, Obligated, and De-Obligated Amounts

Transportation Improvement Program Section	Programmed in TIP	Obligated	Difference	De-Obligated
SIS Capacity	25,268,176	25,722,246	(454,070)	(2,073,751)
State Road Modifications	13,363,124	7,769,552	5,593,572	(522,786)
Local Initiatives Program	19,846,687	16,484,871	3,361,816	(827,212)
Transportation Alternatives Program	2,182,636	5,115,147	(2,932,511)	(478,550)
Other FDOT & Local Projects	8,731,097	11,925,691	(3,194,594)	(2,085,271)
Major Maintenance	686,384	4,214,077	(3,527,693)	(4,986,624)
O&M - Roadways	9,453,203	6,436,555	3,016,648	(405,904)
O&M - Transit	35,344,506	35,752,152	(832,071)	
Airports	675,000		675,000	
Railroads	5,048		5,048	(2,655)
Total	**115,131,436**	**113,420,291**	**1,711,145**	**(11,382,753)**

Palm Beach Transportation Planning Agency (TPA)
Fiscal Year 21 Federal Obligations Summary - Project Totals
Compares TPA Transportation Improvement Program (TIP) Requests with Actual Obligations
SUMMARY - >$500,000 Difference

FM No.	Location	Description	Phase	FY 21 TIP Request	FY 21 Obligations	Funding Difference
4342733	I-95 FROM S OF SR-706 INTERCHANGE TO PALM BEACH/MARTIN CO LINE	Safety project	CST	$ 88,792	$ 6,672,788	$ 6,583,996
4275162	I-95 FROM GATEWAY BOULEVARD TO LANTANA ROAD	Resurfacing	CST	$ 156,399	$ 5,538,674	$ 5,382,275
4124204	I-95 AT GLADES ROAD/SR-808	Construct separated auxiliary lanes from westbound Glades Road to I-95 over Airport Rd, provide improved bike lanes	CST	$ -	$ 4,450,900	$ 4,450,900
4284002	US-1/FEDERAL HIGHWAY FROM CR-A1A TO BEACH ROAD	Bridge Replacement	CST	$ -	$ 3,828,159	$ 3,828,159
4331095	I-95 FROM SOUTH OF GLADES RD TO SOUTH OF LINTON BLVD	Construct managed toll lanes, includes conversion of existing HOV lane to managed lane and add second managed lane	CST	$ -	$ 3,566,838	$ 3,566,838
2319321	I-95 AT GATEWAY BLVD	Modify interchange	PE	$ 99,035	$ 2,378,981	$ 2,279,946
4193452	COUNTRY SAFARI RD TO FOREST HILL/CRESTWOOD BLVD.	Widen from 4 lanes to 6 lanes	CST	$ 11,444	$ 2,160,797	$ 2,149,353
4363071	SOUTHERN BLVD/SR-80 AT FOREST HILL BLVD	Add 3rd WB left turn, convert NB to 3 through lanes & continuous right turn lane	CST	$ 18,415	$ 2,043,545	$ 2,025,130
4331094	I-95 FROM BROW/PALM BCH CO LINE TO SOUTH OF GLADES RD	Managed toll lane	CST	$ -	$ 1,911,280	$ 1,911,280
4415721	INDIANTOWN ROAD FROM US-1 TO A1A	Install designated bike lanes and multi-use paths	CST	$ -	$ 1,739,396	$ 1,739,396
4443671	BRIDGEMAN DRIVE, WELLINGTON ROAD & LONGWOOD ROAD VARIOUS LOCATIONS	Install 5' sidewalks and pedestrian scale lighting	CST	$ -	$ 1,094,638	$ 1,094,638
4351601	PALMETTO PARK ROAD FROM SR-7 TO NW 2ND AVENUE	Construct 10-ft multi-use pathway on the south side of roadway	CST	$ 5,745	$ 833,444	$ 827,699

Palm Beach Transportation Planning Agency (TPA)
Fiscal Year 21 Federal Obligations Summary - Project Totals
Compares TPA Transportation Improvement Program (TIP) Requests with Actual Obligations
SUMMARY - >$500,000 Difference

FM No.	Location	Description	Phase	FY 21 TIP Request	FY 21 Obligations	Funding Difference
4417761	I-95 FROM S. OF 10TH AVE N. TO SR-882/FOREST HILL BOULEVARD	Replace the existing luminaries w/ LED luminaries	PE	$ 1,637	$ 600,967	$ 599,330
4132572	I-95 AT HYPOLUXO ROAD (INTERIM INTERCHANGE)	Interchange Improvement	CST	$ -	$ (531,368)	$ (531,368)
4400451	INDIAN TRAIL IMPROVEMENT DISTRICT - CITYWIDE	Install speed tables, midblock islands, and raised medians	CST	$ 667,814	$ 78,393	$ (589,421)
4470011	DR/CAMINO REAL/PALMETO CIR N/BOCA GROVE BLVD	Intersection Lighting Retrofit Improvement	PE	$ 639,000	$ -	$ (639,000)
4400941	BOCA RATON AIRPORT MASTER PLAN	Airport Master Plan and Electronic Airport Layout Plan (eALP)	CAP	$ 675,000	$ -	$ (675,000)
4384021	NE 5TH AVENUE FROM BOCA RATON ROAD TO NE 20TH STREET	Construct 6-ft sidewalk on west side	CST	$ 680,902	$ (4,054)	$ (684,956)
4400441	BIG BLUE TRACE FROM SOUTH SHORE BLVD TO WELLINGTON TRACE	Construct 10'+ shared use pathways and enhanced crosswalk striping	CST	$ 601,192	$ (87,743)	$ (688,935)
4399291	US-27/SR-25 FROM MP 12 TO SOUTH OF SOUTH BAY	Install rumble striping; Install internally illuminated retro-reflective pavement markers	CST	$ 2,541,803	$ 1,826,596	$ (715,207)
4397551	I-95 AT OKEECHOBEE BLVD	Add a right turn lane on eastbound Okeechobee Boulevard; buffer and realignment of existing bike lanes	CST	$ 892,043	$ -	$ (892,043)
2319321	I-95 AT GATEWAY BLVD	Modify interchange	ROW	$ 949,507	$ -	$ (949,507)
4192511	BEELINE HWY/SR-710 FROM NORTHLAKE BLVD TO BLUE HERON BLVD/SR-708	Widen from 4 lanes to 6 lanes	ENV	$ 1,010,000	$ -	$ (1,010,000)
4353841	I-95 AT LINTON BOULEVARD INTERCHANGE	Add lanes at I-95 Interchange to increase capacity Also includes widening Linton Blvd	CST	$ -	$ (1,089,214)	$ (1,089,214)
4331094	I-95 FROM PALM BCH CO LINE TO SOUTH OF GLADES RD	Add special use lane	DSB	$ 1,133,757	$ -	$ (1,133,757)
4372791	I-95 AT WOOLBRIGHT RD	Add lanes to increase capacity	PE	$ 1,181,200	$ -	$ (1,181,200)

Palm Beach Transportation Planning Agency (TPA)
Fiscal Year 21 Federal Obligations Summary - Project Totals
Compares TPA Transportation Improvement Program (TIP) Requests with Actual Obligations
SUMMARY - >$500,000 Difference

FM No.	Location	Description	Phase	FY 21 TIP Request	FY 21 Obligations	Funding Difference
4400431	BRANT DR BRIDGE FROM OREGON LN TO AVOCET RD OVER C-15 CANAL	Bridge replacement and inclusion of shared use path	CST	$ 3,582,895	$ 1,896,344	$ (1,686,551)
4127331	I-95 AT 10TH AVE NORTH	Reconstruct interchange (add lanes) to increase capacity	PE	$ 1,769,530	$ 5,000	$ (1,764,530)
2319322	I-95 AT WOOLBRIGHT BLVD (INTERIM INTERCHANGE)	add eastbound and westbound left turn lanes on overpass, increase existing turn lane storages	CST	$ -	$ (1,866,289)	$ (1,866,289)
4383841	AUSTRALIAN AVE FROM 1ST ST TO BLUE HERON BLVD	Install enhanced street lighting	CST	$ 4,146,131	$ 2,232,079	$ (1,914,052)
4192511	BEELINE HWY FROM NORTHLAKE BLVD TO BLUE HERON BLVD	Widen from 4 lanes to 6 lanes	RRU	$ 2,400,000	$ -	$ (2,400,000)
4416311	US-27 FROM HENDRY COUNTY LINE TO SR-80	Resurfacing	CST	$ 2,595,557	$ 21,890	$ (2,573,667)
4132581	I-95 AT LANTANA ROAD	Add lanes to I-95 Interchange to increase capacity	PE	$ 4,000,000	$ -	$ (4,000,000)
4124892	SR-A1A FLAGLER MEMORIAL BRIDGE BRIDGE	bridge replacement & roadway improvements	CST	$ -	$ (4,734,955)	$ (4,734,955)
2296584	ATLANTIC AVE FROM SR-7/US-441 TO WEST OF LYONS ROAD	Widen from 2 to 4 lanes	ROW	$ 7,911,916	$ 3,166,764	$ (4,745,152)
4431551	HURRICANE IRMA:SR-700 AT HATTON HWY & TRIANGLE PARK WASHOUT	Emergency Operations	CST	$ 8,460,794	$ -	$ (8,460,794)

Palm Beach Transportation Planning Agency (TPA)
Fiscal Year 21 Federal Obligations Summary

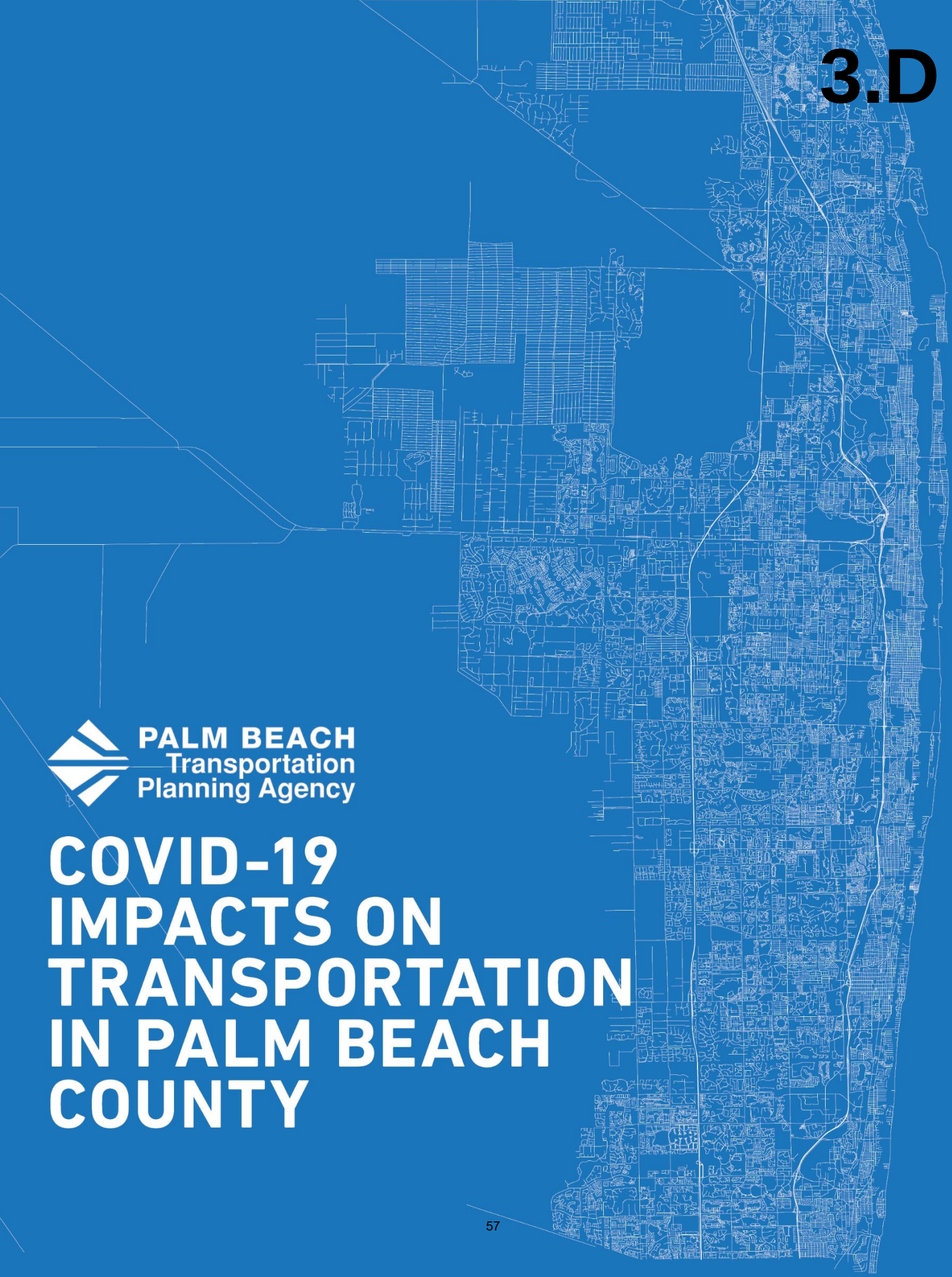
FY 2021 Obligated Transit Funds

FM No.	Location	Description	FY 21 TIP Request	FY 21 Obligations	Funding Difference
4297671	Tri-Rail Northern Layover Facility	Construct SFRTA layover maintenance facility north of the Mangonia Park Tri-Rail Station.	4,276,735	3,416,735	860,000
PT-FAC; PT-PL; PT-MISC; PT-FR-OPS; PT-FRB; PT-SECUR	Palm Tran FTA Section 5307	Includes planning and implementation of planning projects; capital investments in bus and bus-related activities such as replacements and maintenance; and facility maintenance.	30,278,929	31,111,000	(832,071)
PT-FAC; PT-FRB; PT-SOCO	Palm Tran FTA Section 5339	Capital, replacement, rehab, and purchase of buses, vans, and related equipment.	4,287,965	4,287,965	-
PT-FR-OPS	Palm Tran FTA Section 5311	Capital, planning, and operating assistance in rural areas.	353,187	353,187	-
4383961	West Palm Beach Transit Shelters	Construct shelters in seven (7) locations along existing trolley lines.	571,000	-	571,000

FY 2021 Palm Beach TPA Obligated Federal Planning Funds

FM No.	Location	Description	FY 21 TIP Request	FY 21 Obligations	Funding Difference
4393253 4393252	Palm Beach UPWP FY 2020 & FY 2021	Unified Planning Work Program	3,228,452	3,171,175	57,277

3.D



PALM BEACH
Transportation
Planning Agency

COVID-19 IMPACTS ON TRANSPORTATION IN PALM BEACH COUNTY

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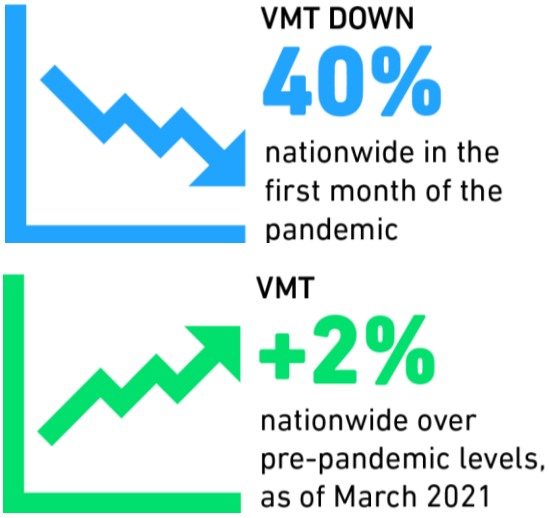
Appendix – literature review table

INTRODUCTION

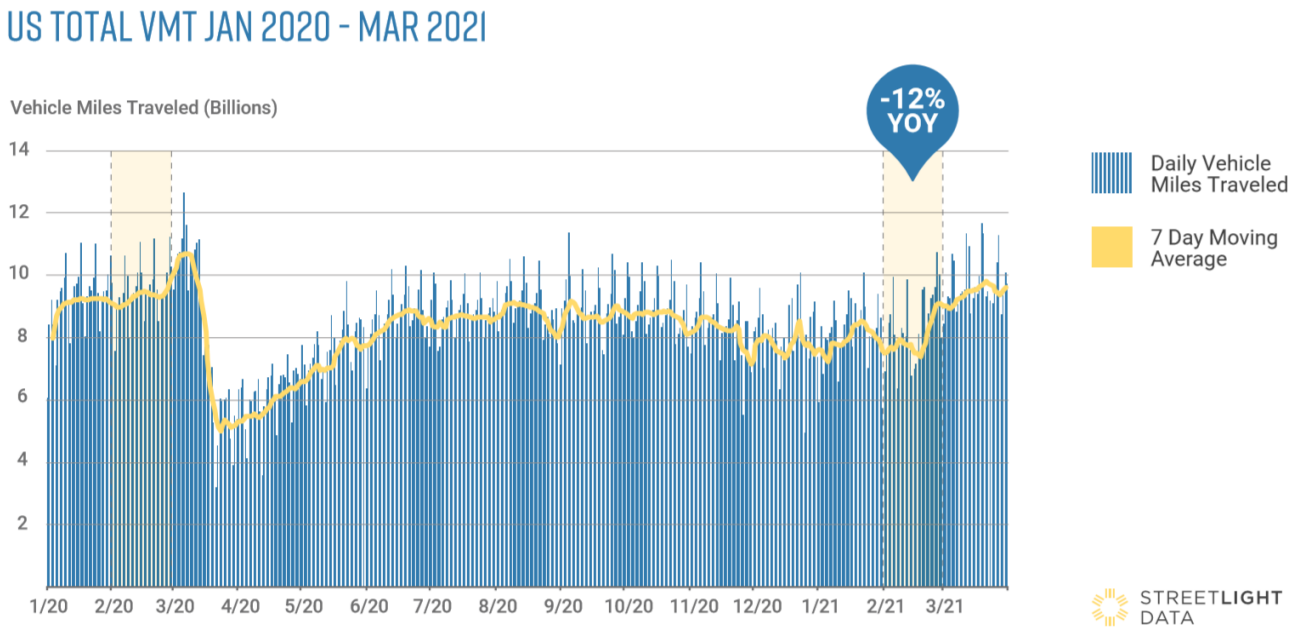
The COVID-19 pandemic has disrupted lives worldwide since the Spring of 2020, with impacts rippling through most, if not all, systems. At the time of publication of this summary, the world is still battling COVID-19 and its disruptions. Some of the forced changes are likely temporary; others may be permanent. Though tragic, the pandemic offers potential efficiencies to be gained from changes in daily routines. Looking at travel trends, the magnitude and nature of how people use transportation systems changed dramatically, but in many cases, patterns have largely returned to pre-pandemic levels.

This report examines the transportation, safety, and economic trends during the pandemic, citing data between February 2020 and February 2021, representing Year Over Year (YOY) changes. In some cases, data as recent as April 2021 is included to represent the ongoing recovery. The conclusion section of the report includes policy recommendations informed by the trends and strategies pursued by other metropolitan areas.



In the first month of the pandemic, the magnitude of daily travel, measured in Vehicle Miles Traveled (VMT), shrank by more than 40% nationwide.[1] However, since April 2020, VMT has steadily rebounded. By February 2021, VMT returned to within 12% of pre-pandemic levels (see Figure 1). In March 2021, VMT surpassed pre-pandemic, February 2020 levels by 2%.

Figure 1. National VMT Trend Reported by Streetlight Data

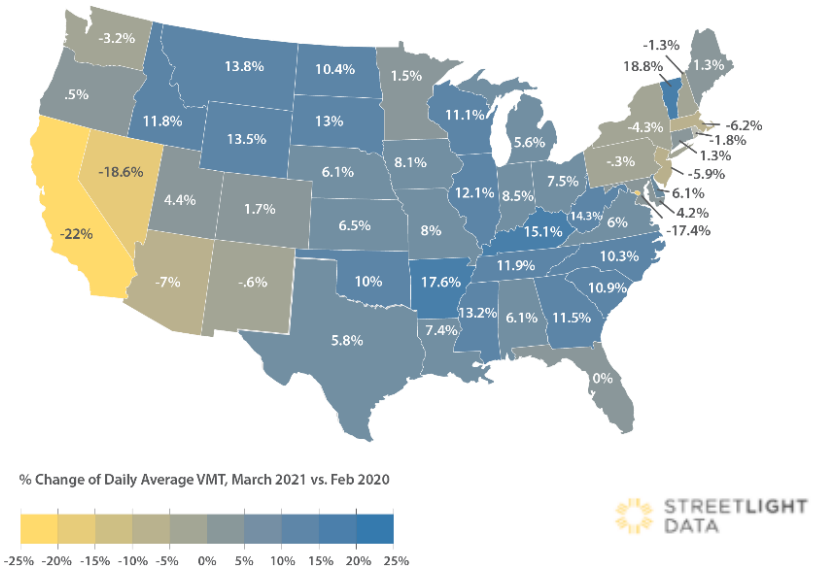


[1] According to probe data collected and processed by StreetLight Data and reported in *Measuring a Year of Pandemic Travel: Where Next?*

IN FLORIDA, THERE IS NO SUBSTANTIAL DIFFERENCE BETWEEN PRE-PANDEMIC VMT AND CURRENT VMT LEVELS

State-level data compares changes in overall VMT between February 2020 and February 2021. In California, the 2021 VMT is still more than 20% lower than it was in 2020. Most heartland states surpassed pre-pandemic VMT levels by February 2021. In Florida, VMT has returned to pre-pandemic levels (see Figure 2).

Figure 2. Change in VMT, March 2021 vs February 2020



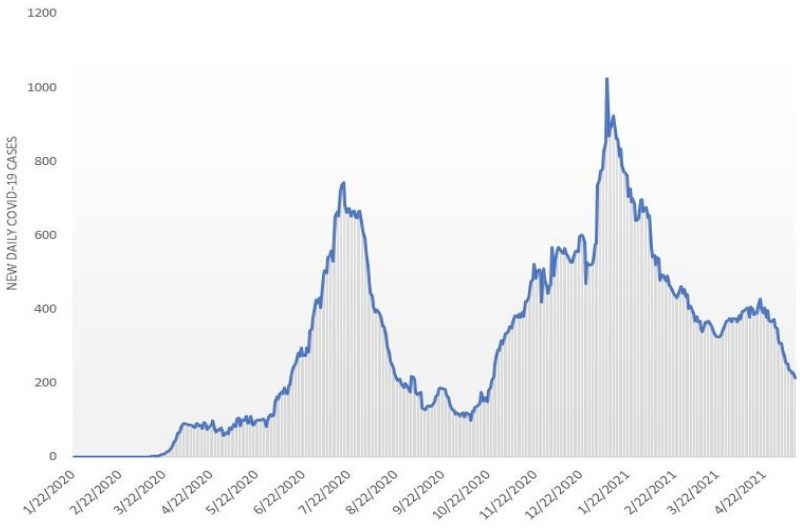
Source: Measuring a Year of Pandemic Travel: Where Next? published by StreetLight Insight Data

COVID-19/TRAVEL TRENDS

The COVID-19 pandemic began to affect large portions of the United States in March 2020 and has since spiked several times in Palm Beach County.[2] New COVID-19 case spikes occurred in July 2020 and January 2021 (see Figure 3). In addition, local, state and national guidelines, statewide business closures and Palm Beach County's reduced levels of transit services profoundly affected the local economy and transportation safety. The COVID-19 case count has declined steadily since April 2021, reflecting the growing rate of vaccination against the virus. The transportation and economic impacts of the pandemic, which closely mirror the pandemic case count trend, are described in the following sections.

PALM BEACH COUNTY COVID-19 CASES SPIKED IN JULY 2020 AND JANUARY 2021

Figure 3. Daily COVID-19 Cases in Palm Beach County



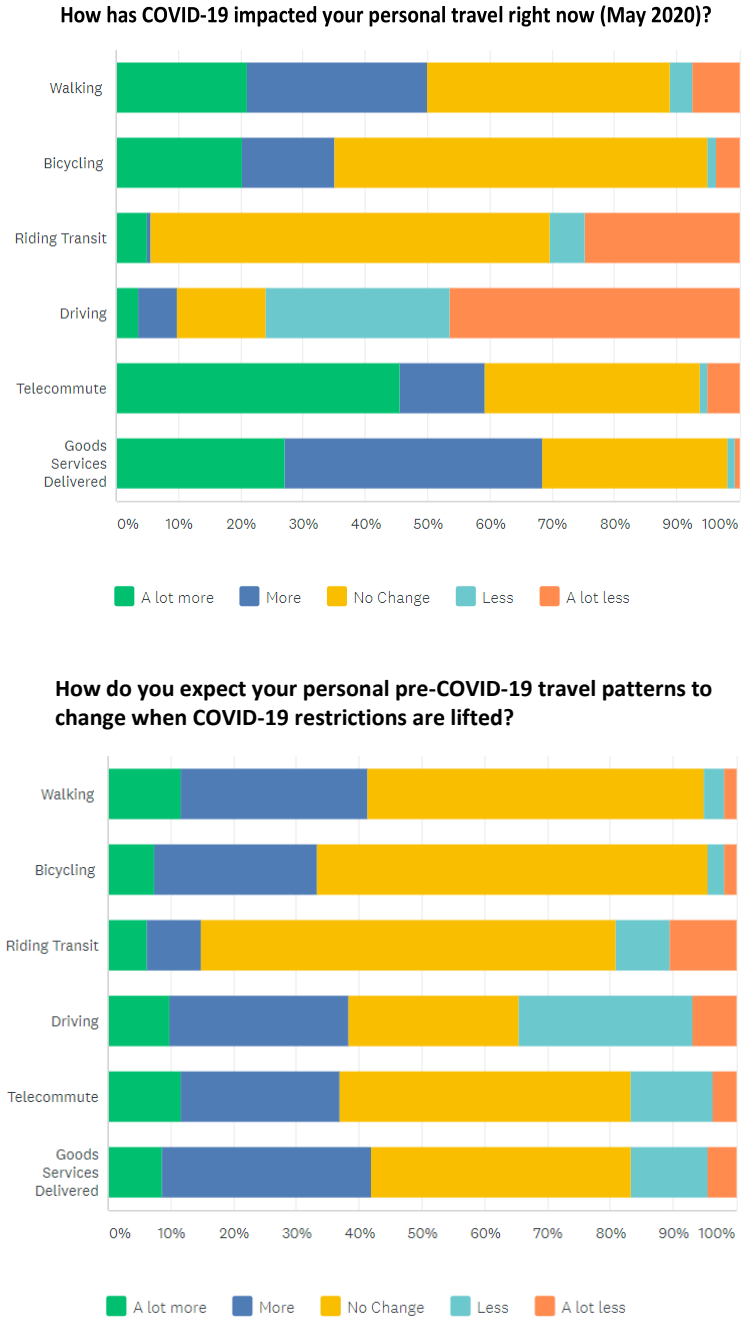
Source: Florida Department of Health

[2] According to Florida Department of Health case count data.

In a short, informal survey administered on social media in May/June 2020, the TPA asked local residents how their travel habits had changed during the pandemic and how they anticipate travel to change after the pandemic. Figure 4 illustrates the responses to those two questions. In May 2020, respondents noted large decreases in driving and riding transit while also noting increases in walking, bicycling, telecommuting and e-commerce deliveries. When COVID-19 restrictions are lifted, respondents expect to increase walking, bicycling, telecommuting, and goods delivery compared to their pre-COVID-19 patterns. However, the increases are expected to be smaller than in May 2020, when stay-at-home restrictions were in place.

The general mode shift trend cited in the stated preference survey indicates a need to accommodate the increase demand for pedestrian and bicycle facilities. While numerous temporary improvements have been made in many communities to respond to this demand, there is clearly an opportunity to make some or all of them permanent, both to respond to the mode shift trend and to encourage it.

Figure 4. Palm Beach TPA Survey Results



National Literature

A broad range of literature addresses the transportation impacts of the COVID-19 pandemic, including recovery scenario planning and transportation policy actions. While there are many commonalities, each region or area has unique circumstances and experiences. Three regions were selected for peer review based on data and COVID study availability and covering a wide geographical spectrum. A review of pandemic-induced impacts in the three regions, which include New York, New York; Hampton Roads, Virginia; and the six-county region in Southern California, illustrates some of the common trends and their magnitudes. These regions all saw dramatic initial reductions in traffic followed by robust recovery. They also saw significant sustained traffic reductions by up to 10%, experienced large and sustained reductions in transit ridership, and saw increased non-motorized activity.

In New York City, peak transit ridership declined by up to 94%, and vehicular traffic declined by as much as 74%. However, bicycle traffic observed on the Brooklyn, Manhattan, Williamsburg, and Queensboro bridges increased by 55% early in the pandemic (see Figure 5). While the majority of transit and auto declines could be attributed to an overall reduction in trips, there was likely some mode shift to non-motorized transportation.[3]

When comparing fall 2020 and fall 2019 in the Hampton Roads region of east Virginia, declines in air travel and regional rail ridership approached 56 and 45%, respectively. In September 2020, public transit ridership was down 44% in the Hampton Roads region. Automobile traffic, on the other hand, was only 10% lower over the same period of comparison (see Figure 6). In spring 2020, traffic rebounded from a low of 40% reduction. The Hampton Roads region's crash data indicates a 9% increase in crashes and 6% increase in injuries over the same period, despite traffic reductions. Between October 2019 and October 2020, use of multi-use trails in the region increased by more than 50%.[4]

Figure 5. New York City Trends March 2019 to March 2020

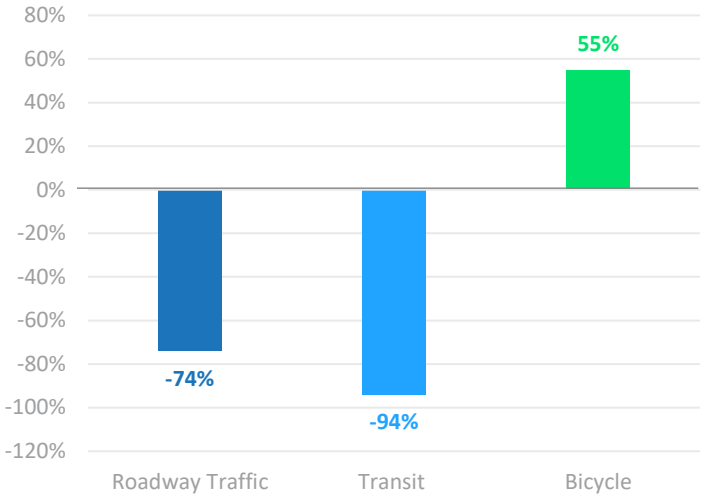
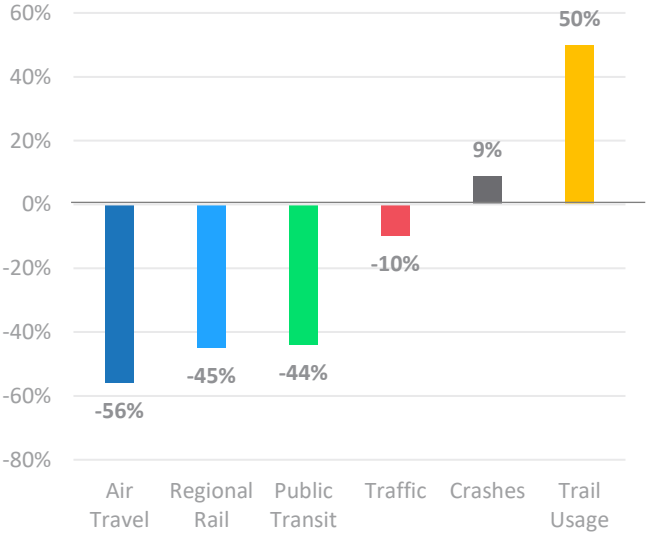


Figure 6. Hampton Roads Trends Fall 2019 to Fall 2020



[3] https://c2smart.engineering.nyu.edu/wp-content/uploads/2020/04/C2SMART-COVID-19-Whitepaper_draft_v10_final.pdf
[4] https://www.hrtpo.org/uploads/docs/T21-03_State%20of%20Transportation%202020%20-%20Final%20Report%20TPO%20Board.pdf

THE HAMPTON ROADS REGION SAW A 9% INCREASE IN CRASHES AND 6% INCREASE IN INJURIES **DESPITE TRAFFIC REDUCTIONS**

Southern California Association of Governments (SCAG) data indicates that Southern California's April 2020 freeway VMT decreased by as much as 45% relative to 2019 and that by June 2020, freeway VMT had recovered within 12% of 2019 traffic. Heavy truck VMT reductions were less pronounced: they hit a low of 30% in April and recovered to within 8% by June. In the SCAG region, bus ridership was down more than 71% in April 2020 and remained more than 66% lower than 2019 levels in May. This tells us that in Southern California, bus ridership experienced a slower recovery than traffic. [5]

MOBILE DEVICE DATA

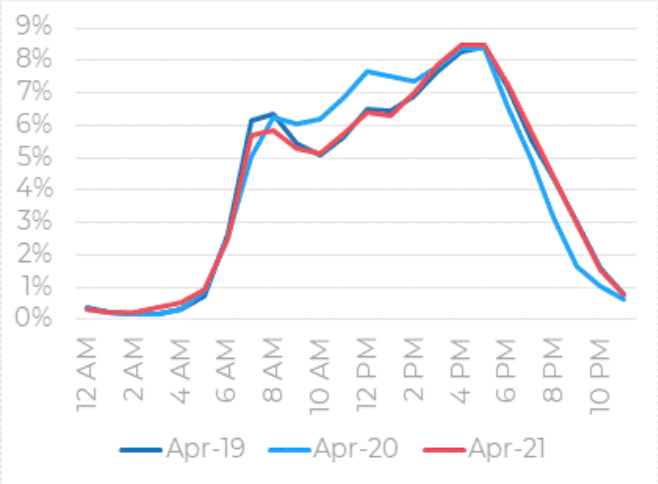
IN THE INITIAL MONTHS OF THE PANDEMIC, OVERALL VMT DRAMATICALLY DECLINED; HOWEVER, VMT PEAKS WERE SPREAD OVER LONGER PERIODS

According to travel data collected by StreetLight and other data providers, the pandemic had varied impacts on VMT throughout a typical day. Although the overall VMT saw dramatic declines during the initial months of the pandemic, the morning and evening peak periods were impacted more heavily than the mid-day period. In the transportation industry, this trend is called **peak spreading**. Peak spreading refers to an overall sustaining of traffic levels but the traffic is spread out over a longer period than the typical morning and evening peaks. This trend that has been embraced by the Miami-Dade Transportation Planning Organization (TPO) in a set of policies designed to promote working from home—a likely cause of the peak spreading phenomenon. The TPO policies include a range of strategies, including public education, promotion of telecommunication infrastructure investments, and recognition of telecommuting as a mode of travel, legitimizing transportation revenue for various types of investments.[6]

Relating peak spreading to broader travel patterns sheds light on the general cause of the phenomenon. Typical work commutes often involve **trip chaining**, or the combination of multiple trip types during the work commute. A person who chains their trips combines shopping, recreation, school drop off, and other trip types during their work commute, resulting in trip making efficiencies and potentially less VMT in the off-peak period. Those who worked from home during the pandemic eliminated their work commute altogether. In many cases, the other trip types commonly chained with the work commute were not eliminated, resulting in less trip chaining and more off-peak trips. While the overall VMT may not have increased, it has been distributed throughout the day.

Figure 7 compares peak spreading in 2019, 2020, and 2021 in Palm Beach County. Even though peak spreading has reduced to pre-pandemic levels in 2021, it reached a pronounced peak during the outbreak's height. By understanding the pandemic effects on VMT, the TPA can take action to mitigate or react to those impacts.

Figure 7. VMT by Time of Day in Palm Beach County

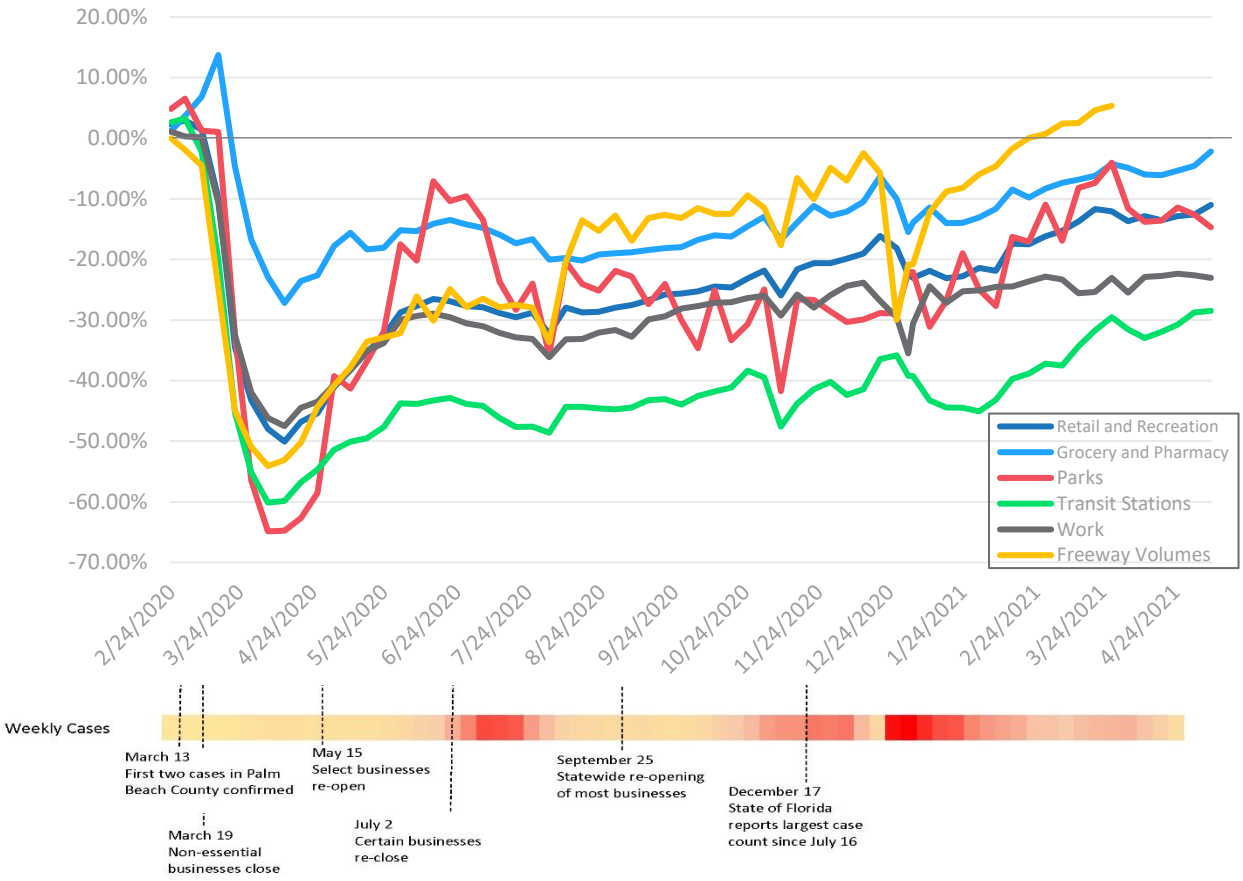


Source: StreetLight

[5] https://scag.ca.gov/sites/main/files/file-attachments/scag-covid-19-transportation_impacts.pdf
[6] http://www.miamidadetpo.org/library/studies/mdtpo-telecommute-study-executive-summary-2021-01.pdf

Mobile device data curated by Google Mobility directly compares trips by their purpose and illustrates how trip making changed over the course of the COVID-19 pandemic. Organized by trip purpose, Figure 8 summarizes changes in trip volumes relative to a pre-pandemic January 2020 baseline. The figure also includes changes in freeway traffic volumes in Palm Beach County, COVID-19 case data sourced from the Florida Department of Health, and policy changes related to business closures. Here, the correlation between travel data and pandemic/policy data is unmistakable, particularly at the beginning of the pandemic and during the two Palm Beach County COVID-19 spikes in July 2020 and January 2021.

Figure 8. Changes in Palm Beach County Trips



Sources: Google Mobility and Florida Department of Health

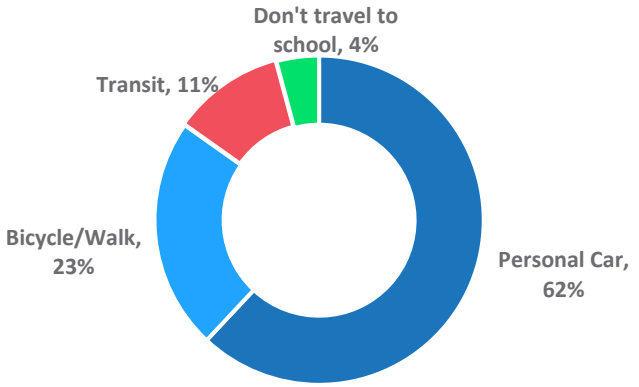
Google data shows that trips to parks and transit stations declined the most during the pandemic, followed closely by freeway volumes, retail, and work trips. Trips to grocery stores and pharmacies, on the other hand, declined the least. However, pharmacy and grocery trips were still more than 25% lower in March 2020 and remained down almost 10% in March 2021. The July and January COVID-19 spikes correspond with large drops in trip making for most purposes except grocery and pharmacy trips. Park trip reductions are likely the result of park closures in late March 2020. Data between the COVID-19 spikes indicates a clear upward trend and suggests a gradual return to pre-pandemic levels. The most recent trip data, from April 2021, reflects the highest point since the beginning of the pandemic. In April, freeway volumes and grocery/pharmacy trips were near or above baseline levels, whereas transit and work trips were still at least 25% below baseline.

DATA BETWEEN THE COVID-19 SPIKES INDICATES A CLEAR UPWARD TREND AND SUGGESTS A GRADUAL RETURN TO PRE-PANDEMIC LEVELS

FDOT SURVEY

Florida International University administered a statewide telecommuting survey on behalf of the Florida Department of Transportation (FDOT) in August 2020 to understand telecommuting trends before and during the pandemic and to plan for telecommuting in a post-pandemic reality. The survey sample included college students, employees, and employers in industries for which telecommuting is a viable option. While telecommuting trended long before the pandemic, the pandemic's dramatic effect on the practice of virtual work and education is an anomaly in terms of reduced commuting levels. However, the survey results estimate that many employees and students will continue to work and learn from home after the pandemic.

Figure 9. Student Travel Mode Before COVID-19



STUDENTS

Before the pandemic, of the 444 college students who responded to the FDOT survey, 23% biked or walked to school, 11% rode public transit, 62% traveled in a personal automobile, and 4% did not commute (see Figure 9). These students also reported that during the pandemic, 100% of their classes were moved to a virtual classroom, eliminating the school commute entirely. However, 30% of respondents indicated that after the pandemic, they would like at least as many, if not more, online courses than they had before the pandemic. In terms of student preferences, this indicates a high potential for sustained virtualization of college classes.

EMPLOYEES AND EMPLOYERS

Of the 503 employees surveyed, 25% reported telecommuting at least a few times per month before the pandemic. During the pandemic, the percentage of employees who telecommuted weekly more than doubled to 53%. When asked to speculate how often they would telecommute post-pandemic, 36% reported they expected to telecommute at least monthly, and 23% reported they would telecommute a few times per week (see Figure 10).

The FDOT survey isolated employers—represented by 417 responses from directors, human resource managers, and project managers—to get the perspective of employment policies. The survey asked employers to estimate the percentage of their workforce that telecommuted before the pandemic, the portion telecommuting during the pandemic, and the expected portion who will telecommute after the pandemic. The results indicated a rate of 31% telecommuting before the pandemic and nearly double telecommuting during the pandemic. After COVID-19 subsides, employers expect a decrease in telecommuting, although

they anticipate telecommuting to remain significantly higher than before the pandemic. Relative to pre-pandemic telecommuting, this shift would result in a sustained increase of 16 marginal percentage points for a rate of just under 50% (see Figure 11).

Figure 10. Employee Survey Results

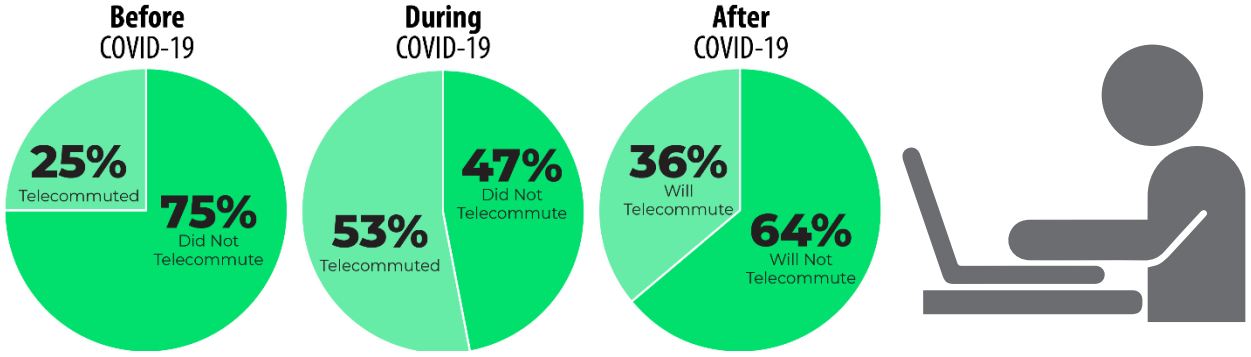
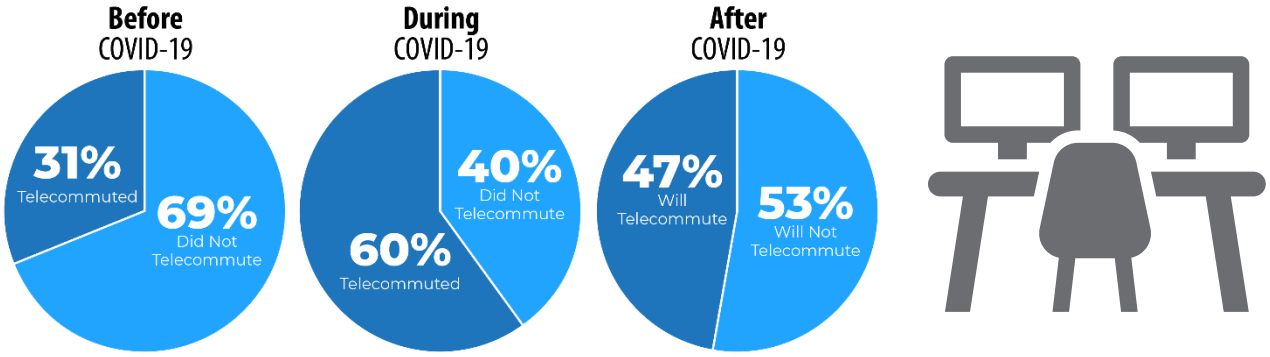


Figure 11. Employer Survey Results



ECONOMIC TRENDS

The economic damage from the COVID-19 pandemic rivals the Great Recession from the late 2000s. As with the transportation impacts described in the following section, initial economic impacts proved to be relatively short-lived, following the progression of the pandemic and associated business closures and other policies, but rebounding quickly as the pandemic has waned.

This study analyzed two general areas of COVID-19 economic data: employment and freight movement. These selected areas provide a comprehensive and directly relevant data sample to assess relationships between the economy, the pandemic, and transportation.

Employment

Employment metrics provide an important snapshot of the economic impacts of the pandemic. Levels of unemployed workers and job losses in absolute terms comprise fundamental metrics that together provide a reasonable assessment of the economy. Employment statistics also directly relate to the pandemic's transportation impacts and can inform policy actions to combat and mitigate some of the negative effects.

Unemployment is one of the most common variables used to measure the health of the economy at large. The number of unemployed workers in Palm Beach County almost quadrupled from January 2020 to May 2020, when most non-essential businesses were closed. In April 2021, the number of unemployed workers in the county had declined to 35,000 from a peak of just over 100,000 in May 2020. Unemployed workers in Palm Beach County before the pandemic numbered just under 27,000. The unemployment trend depicted in Figure 12, tells only part of the story, as it only accounts for those without work in the previous month.

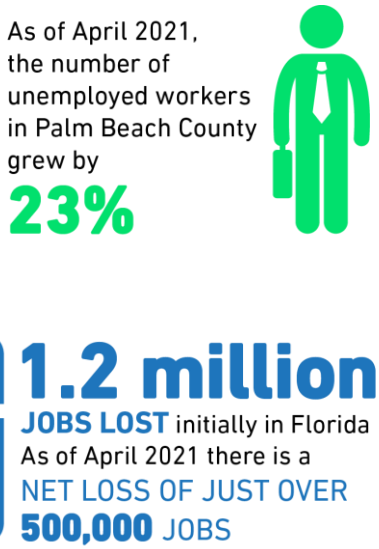
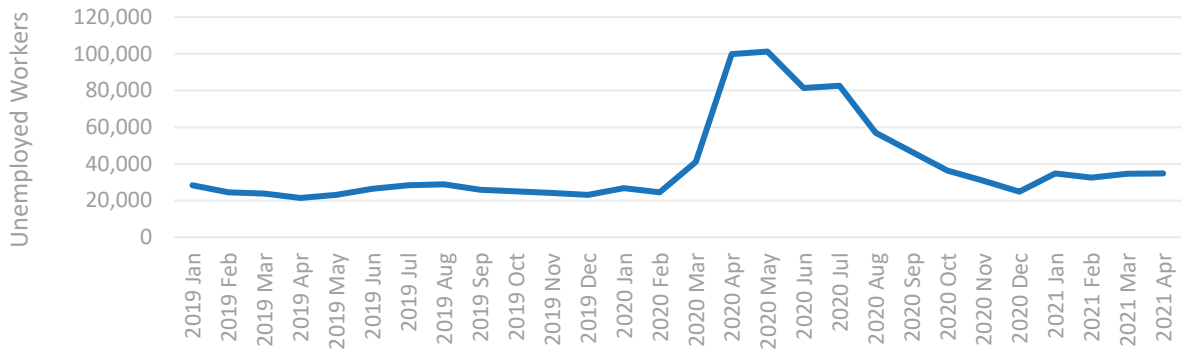


Figure 12. Unemployment in Palm Beach County

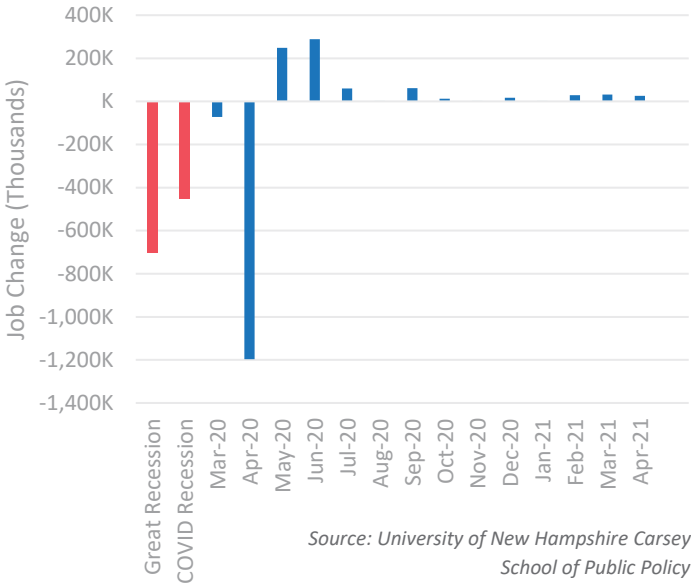


Source: United States Bureau of Labor Statistics

Job loss figures provide a different and more accurate view of COVID-19's economic impacts over a longer term. While unemployment figures are limited to workers filing for unemployment benefits, the total number of jobs provides a more direct measure of the economy itself. Figure 13 depicts job losses during the 2007-2009 Great Recession and job losses during the COVID-19 pandemic between March 2020 and April 2021 at the state level.[7] Figure 14 makes the same comparison for Palm Beach County.

At approximately 454,000 during the pandemic, jobs lost in Florida approached levels seen during the Great Recession (705,000). Initially, Florida lost more than 1.2 million jobs during the first months of the pandemic. In the subsequent period from May 2020 to April 2021, more than 760,000 jobs were recovered, leaving a net loss of almost 500,000. The magnitude of the sustained job losses resulting from the pandemic suggests that the pandemic transformed the economy, thereby impacting transportation and a host of other areas.

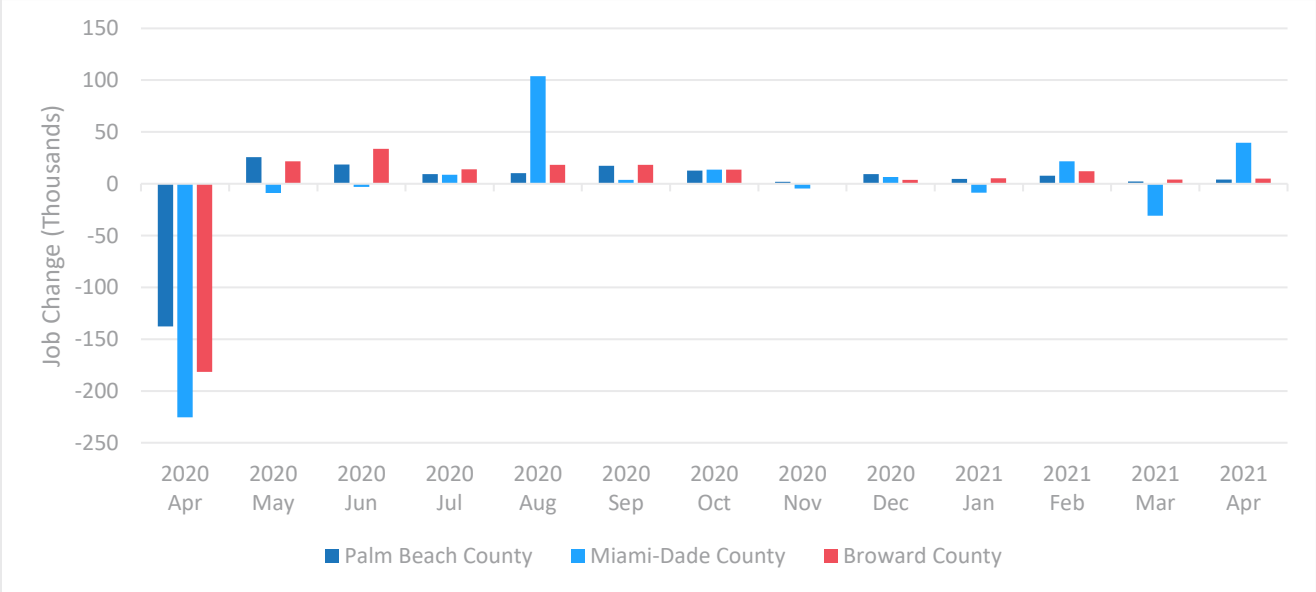
Figure 13. Florida Job Losses During Great and COVID-19 Recessions, and Monthly Job Change March 2020 - April 2021



Source: University of New Hampshire Carsey School of Public Policy

Figure 14 compares job losses in the twelve months between April 2020 and April 2021 for the three counties in the Miami Metropolitan area, inclusive of Palm Beach, Broward, and Miami-Dade counties. Palm Beach County's 2% net reduction in jobs amounts to a loss of 14,000 jobs after an initial loss of over 137,000 jobs in April 2020. In percentage terms, the three-county region saw double that, with a 4% job loss between April 2020 and April 2021.

Figure 14. Miami Metro Area Job Losses During COVID-19 Pandemic (by County)

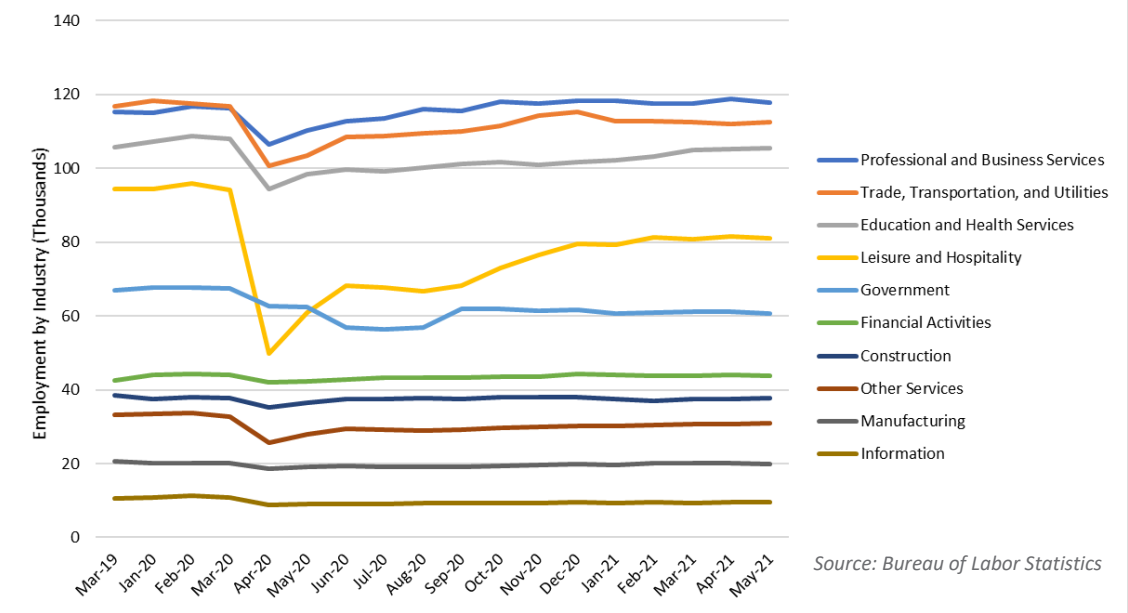


Source: Bureau of Labor Statistics

[7] https://carsey.unh.edu/COVID-19-Economic-Impact-By-State

Employment by sector in Palm Beach County reveals the disproportionate impact on the Leisure and Hospitality sector, which sustained a loss of 44,000 jobs in April 2020. In percentage terms, the job loss was greatest in that sector at 47%, followed by Other Services at 22% and Information at 18% loss in April 2020. By May 2021, only three sectors had recovered to 2019 levels, including Professional and Business Services, Education and Health Services, and Financial Activities. Hospitality and Leisure was still down 14% relative to March 2019, while the other sectors were down 6% on average (see Figure 15).

Figure 15. Palm Beach County Job Losses During COVID-19 Pandemic by Employment Sector



Freight Movement

A good economic measure that is more directly related to transportation, freight movement into and out of Palm Beach County helps illustrate the pandemic's economic effects. Port of Palm Beach data indicated that the monthly inbound and outbound tonnage moving through the port declined by almost 27% by May 2020, relative to May 2019 (see Figure 16). Another dip in August 2020 coincided with the July COVID-19 case spike, but by September 2020, the import and export tonnage temporarily reached 2019 levels. The recovery of 2019 freight tonnage was almost complete at the end of 2020, but in 2021, the rate again dropped to just over 20% below 2019 levels. In addition to the ongoing global supply chain disruptions resulting from the pandemic, the 2021 slowdown was exacerbated by the Suez Canal blockage that occurred in March. The rise and fall of imports and exports was more or less uniform across commodity types, according to Port officials. Heavy truck traffic, represented by the I-95 weigh-in-motion station data, reveals a different trend, with 2020 traffic consistently higher than 2019 truck traffic (see Figure 17). A likely reason for the seemingly unaffected truck traffic is the significant increase in e-commerce noted in the TPA stated preference survey.

Figure 16. Seaport Activity

SEAPORT:
Monthly tonnage imported and exported to/from Port of Palm Beach

Source: Port of Palm Beach PIERS data

2019 2020 2021

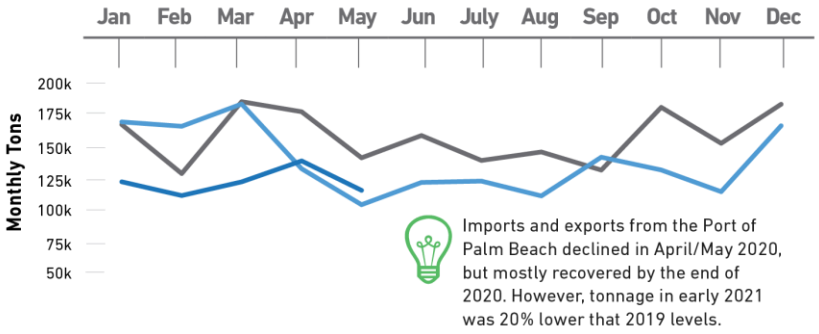
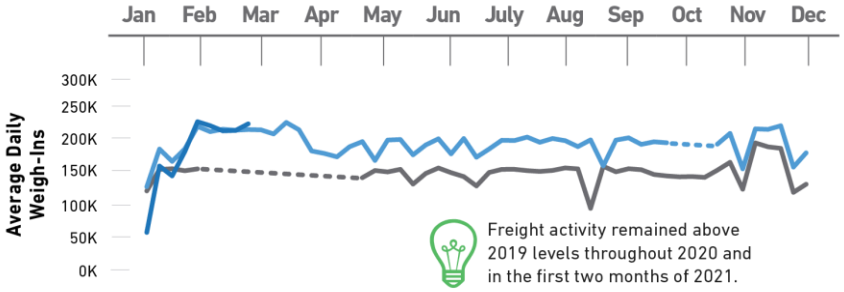


Figure 17. Freight Activity

FREIGHT ACTIVITY:
Average weekday daily trucks through all weigh-in-motion stations

Source: Weigh-in-motion data from FDOT Civil Transportation Data and Analytics Office. Dashed lines represent interpolated trends.

2019 2020 2021



TRAFFIC IMPACTS

Traffic directly correlates to pandemic employment and telecommuting trends. These trends share an initial dramatic decline followed by a steady recovery just after the pandemic started in March 2020. Because different roadway types generally serve different types of travel, pandemic traffic impacts vary by roadway type. To account for these differences, freeways and non-freeway roadways are summarized separately. For both cases, traffic analysis includes monthly levels in 2019, in 2020, and during the first quarter of 2021. These periods provided a stable point of reference that reflected both typical annual traffic fluctuations and pandemic changes.

In April 2020, freeway volumes had declined more than 50% but rebounded to 2019 levels by September (see Figure 18). In September 2019, freeway volumes dipped when Hurricane Dorian made landfall in the Bahamas, disrupting travel in South Florida. From September 2020, freeway volumes continued to grow, maintaining levels above 2019 volumes for the remainder of the year. In 2021, however, freeway volumes started 15% lower than January 2019, indicating a less-than-complete recovery. Freeway travel speeds were up to 25 miles per hour faster in 2020, relative to 2019. In 2021, freeway speeds were still approximately 10 miles per hour faster than in 2019, corresponding to the 15% difference in traffic volume (see Figure 19).

Figure 18. Freeway Traffic Volumes in Palm Beach County

TRAFFIC VOLUMES:
Average weekday traffic volumes on freeways

Source: Telemetered traffic station data from FDOT Transportation Data and Analytics Office

2019 2020 2021

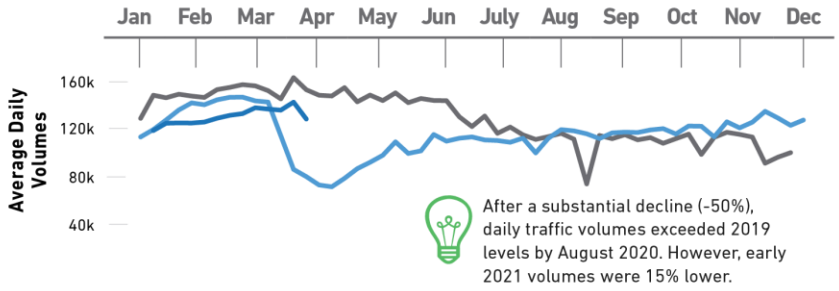
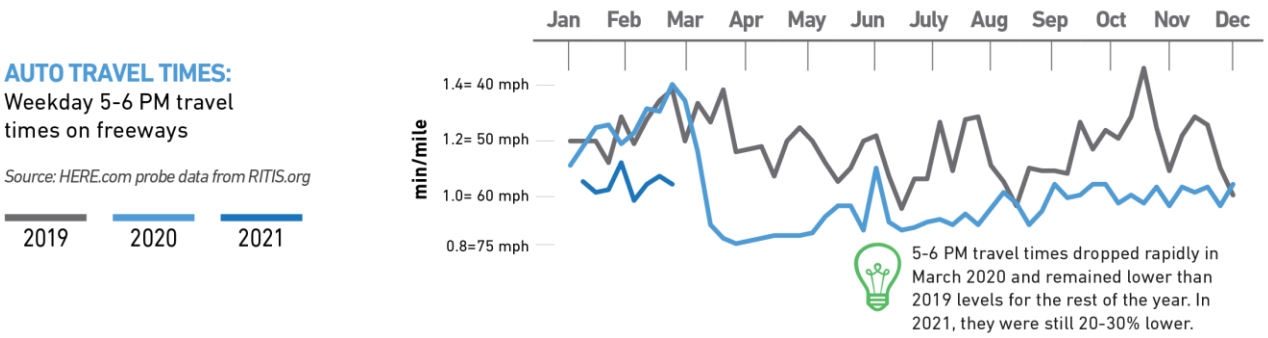
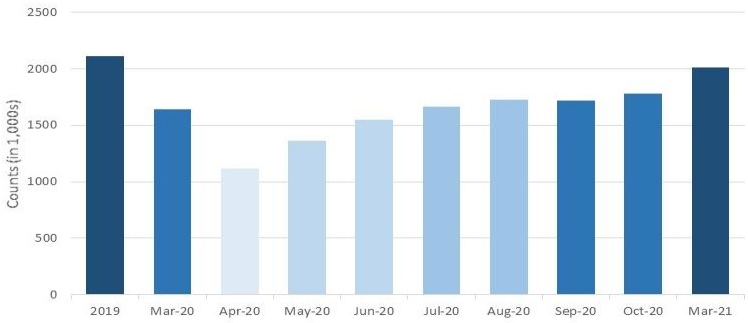


Figure 19. Freeway Travel Times in Palm Beach County



Non-freeway roadways in Palm Beach County saw a similar trend throughout the pandemic, hitting a low point in April 2020, 47% below 2019 traffic levels. As with freeway volumes, non-freeway traffic has steadily recovered since May 2020; by March 2021, county volumes grew to within 5% of 2019 volumes. Figure 20 reflects aggregate peak-season daily counts in 2019 across all monitored roadways in the county. The graph also shows aggregate counts for an average day each month between March and October 2020 as well as for March 2021. Non-freeway roads' more robust recovery, relative to freeways, may be explained in part by the fact that freeway facilities are used more frequently by commuters. Recall that during the pandemic, travel during the off-peak period increased significantly as a proportion of total daily travel. This indicates the outbreak had relatively less impact on non-work travel. At the current rate, local roadways will soon reach pre-pandemic levels, while freeway volumes may take longer to recover. The extent to which telecommuting reaches pre-pandemic levels may be a determining factor as to the extent and pace of the recovery.

Figure 20. Non-Freeway Roadways Traffic Volumes



Source: Palm Beach County Traffic Division

SAFETY IMPACTS

The pandemic has had mixed impacts on automobile crashes. Crashes in Palm Beach County decreased up to 65% at the beginning of the pandemic in March 2020, but despite the lower traffic volumes, little changed in the percentage of fatal and severe injuries. As traffic levels began to recover later in April 2020, crashes rose with a steady increase to within 15% of 2019 levels as of the beginning of 2021 (see Figure 21). The rate of crashes, in terms of crashes per vehicle miles traveled, remained generally consistent, indicating a relatively unchanged trend despite increases in travel speed associated with reduced volume. Crashes involving fatalities and serious injuries also remained relatively consistent with pre-pandemic levels, which could be due to increased auto travel speeds on the roadways (see Figure 22).

Figure 21. Total Vehicular Crashes

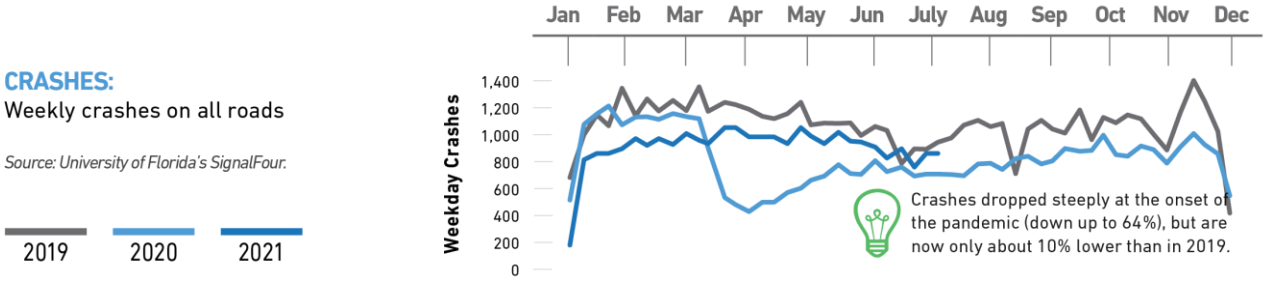
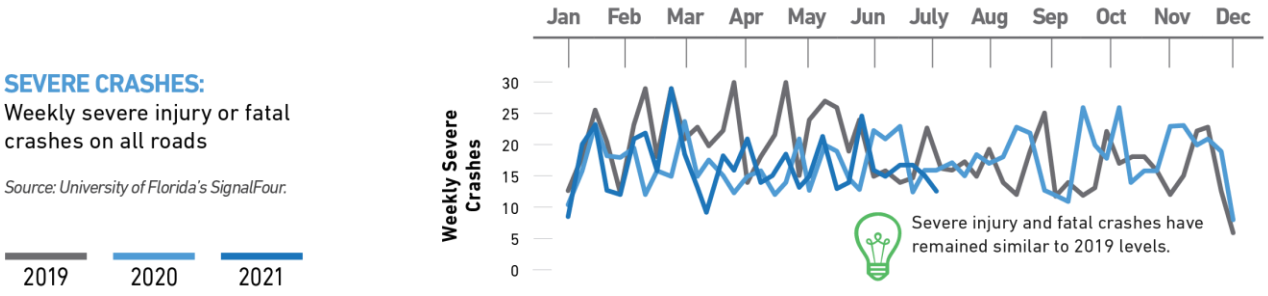
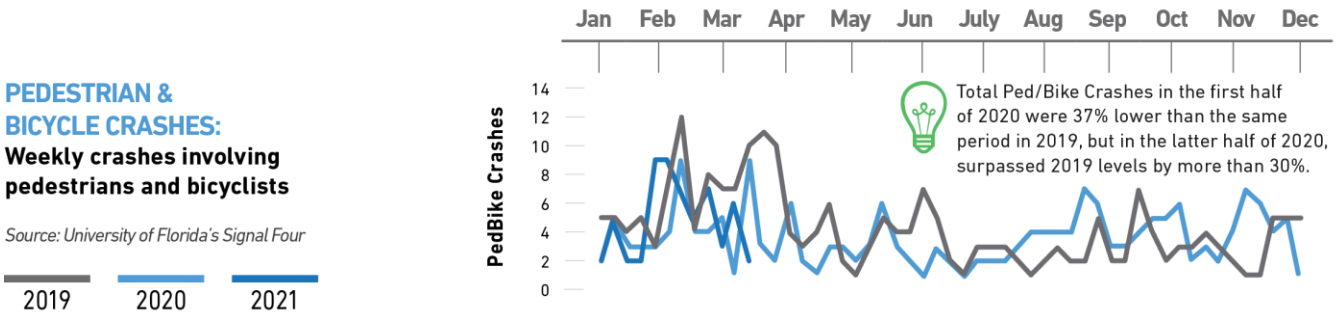


Figure 22. Crashes Involving Fatalities and Serious Injuries



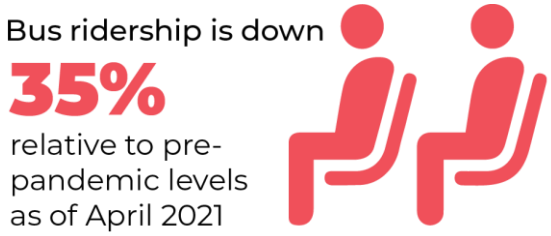
Crashes involving pedestrians and bicyclists were generally lower in the first half of 2020, relative to 2019, but that trend reversed in August 2020, after which pedestrian/bicycle crashes were consistently higher than 2019 on a monthly basis (see Figure 23). This coincides with recovered traffic levels in late 2020, which surpassed 2019 levels in August.

Figure 23. Crashes Involving Pedestrians and Bicyclists



MULTIMODAL IMPACTS

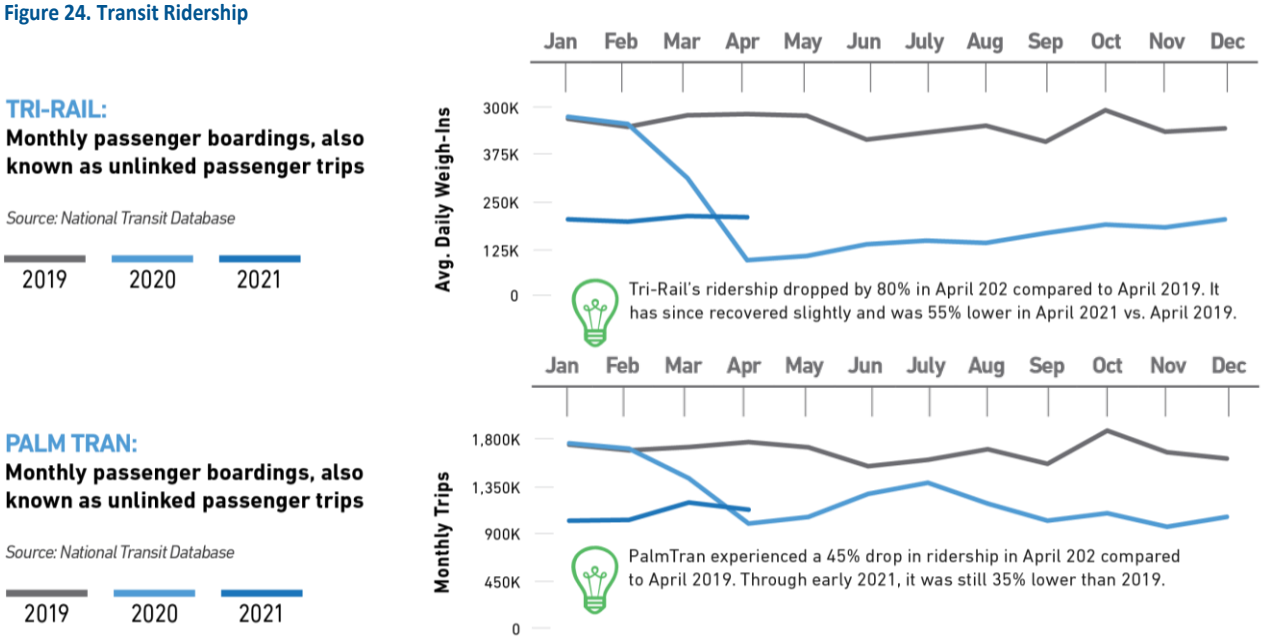
Changes in multimodal activity vary by mode of travel. According to Google data portrayed in Figure 7, as well as Palm Tran and Tri-Rail boarding data, public transit saw large reductions in ridership during the pandemic (see Figure 24). Reduced travel and social distancing guidelines limiting passengers on transit vehicles helps explain the decline of transit ridership.



Palm Tran's service reductions, which decreased all route services to weekend levels in March 2020, also significantly affected ridership levels. Palm Tran has since reinstated pre-pandemic service. Palm Beach County's bus ridership dropped by 45% in March and April 2020 and rebounded to within 14% of pre-pandemic ridership as of July 2020. That July, COVID-19 cases spiked, prompting another plummet of 30% and wiping out the recovery that had occurred since the spring. As of April 2021, bus ridership is still down 35% relative to pre-pandemic levels.

Tri-Rail ridership also dropped precipitously in April 2020, falling by more than 80% and only recovering to within 55% of pre-pandemic levels by April 2021. The fact that Tri-Rail provides commuter service for many work trips can explain the larger drop and slower recovery.

Figure 24. Transit Ridership

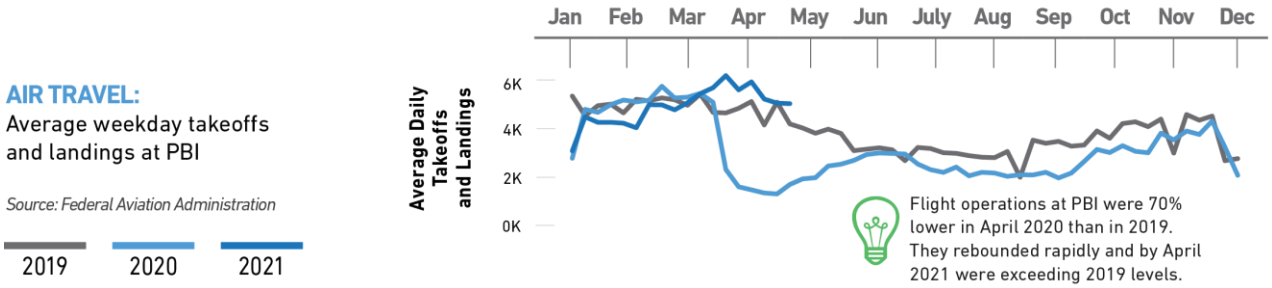


Peer area and indirect data suggest bicycle and pedestrian mode share grew during the pandemic, likely due to the U.S. Center for Disease Control and Prevention's (CDC) advice against indoor activities in favor of well-ventilated areas and social distancing guidelines. During the pandemic, bicycle demand skyrocketed, causing a global bicycle shortage. According to Heather Mason, president of the National Bicycle Dealers Association, demand has exceeded the supply of bicycles on a global level. Bicycle industry experts estimate that bicycle inventories will not catch up with demand until 2023.[8]

AIR TRAVEL

Like public transit ridership, air travel was initially especially vulnerable to the pandemic due to CDC social distancing guidelines. In April 2020, average weekday takeoffs and landings at Palm Beach International Airport plummeted more than 70% relative to the previous year. Air travel recovered rapidly, and by April 2021, it surpassed 2019 levels by a significant margin (see Figure 25).

Figure 25. Air Travel



AIR TRAVEL RECOVERED RAPIDLY AND SURPASSED 2019 LEVELS BY APRIL 2021

[8] https://www.marketwatch.com/story/why-is-there-a-bicycle-shortage-its-got-a-lot-to-do-with-why-fireworks-are-scarce-11622751152

CONCLUSION AND RECOMMENDATIONS

While the impacts of the COVID-19 pandemic on transportation in Palm Beach County have been dramatic, much has returned to near pre-pandemic conditions. Notable conclusions in the data analysis include the following:

- **Economy** – Palm Beach County had an initial loss of 137,000 jobs in April 2020, with the Leisure and Hospitality industry hit hardest. As of Spring 2021, the County is still recovering with 2% net reduction, or 14,000 jobs, compared to before the pandemic.
- **Freight** – Freight moving through the Port of Palm Beach declined by almost 27% at the beginning of the pandemic and is still down approximately 20% relative to 2019 levels. Heavy truck traffic on I-95 reveals a different trend, with 2020 traffic consistently higher than 2019 truck traffic.
- **Roadway traffic** – Reductions of up to 50% early in the pandemic have recovered to within 15% of pre-pandemic levels on freeways and within 5% on non-freeway roadways. Although 2021 traffic volumes recovered to near pre-pandemic levels, the lasting reductions are significant and impactful. On freeways, the 15% difference in traffic correlates to an increase in speed of travel up to 10 miles per hour.
- **Vehicular crashes** – Crashes declined by up to 65% in April 2020 but have since increased to within 15% of pre-pandemic levels, generally commensurate with traffic fluctuations. Crashes involving fatalities and serious injuries have not changed substantially during the pandemic, likely due to increased travel speeds associated with traffic volume reductions.
- **Transit ridership** – Bus ridership declines of 45% and Tri-Rail reductions of 80% at the beginning of the pandemic were still down 30% and 55%, respectively in Spring 2021. The relatively slow recovery of public transit ridership, is likely the result of social distancing guidelines and high telecommuting rates.
- **Ped/Bike and trail usage** – National data has shown a significant increase in pedestrian and bicycle activity during the pandemic. This is consistent with Palm Beach County survey data, which indicates a significant mode shift to non-motorized transportation and an expected continuance of that trend even after the pandemic.
- **Air travel** – Enplanements at Palm Beach International Airport declined by 70% early in the pandemic, but have recovered to surpass 2019 levels as of Spring 2021.

ACCORDING TO FDOT DISTRICT 6 SECRETARY JIM WOLFE, EVEN THOUGH IT IS A SMALL DECREASE, A 10% REDUCTION IN TRAVEL (IN MIAMI-DADE COUNTY) HAS MADE A BIG DIFFERENCE IN TERMS OF CONGESTION.

While there are still significant challenges associated with post-pandemic recovery, these challenges are accompanied by new efficiencies and other opportunities to improve the “new normal”. As Palm Beach County recovers, it is important to consider opportunities to mitigate negative impacts and embrace positive ones. To anticipate future disruptions, the Palm Beach TPA and its partner agencies can embrace strategies for data procurement for ongoing monitoring, land use policy, transportation infrastructure improvements, and scenario planning. Moving forward requires consideration of both reactive and proactive approaches.

The following set of strategies summarizes potential actions that can be taken by the Palm Beach TPA and its partner agencies, some of which are already being pursued or implemented.

Ongoing monitoring – The pandemic's ongoing effects on lifestyle and transportation must be continuously monitored to nimbly react to the pandemic's temporary and lasting effects.

- Closely monitor traffic, mode share, and safety data to continue to track and assess the recovery from COVID-19.
- Track development patterns and associated changes in origin/destination travel patterns over time to assess long term impacts.
- Monitor levels of activity in major employment centers to assess potential activity shifts away from central business districts and other activity centers.

Resiliency/mitigation planning – Palm Beach County currently has a Local Mitigation Strategy (LMS) that is a coordinated county effort to reduce vulnerability to hazards like the pandemic. Continued coordination with partner agencies, including Palm Tran, to maintain coordinated resiliency or hazard mitigation plans is critical to preparedness. Palm Beach International Airport's (PBI) COVID-19 Pandemic Preparedness and Response plan identifies a variety of strategies that provide a model for other agencies' plans. PBI strategies include:

- Maintain safe and clean facilities and require employees and patrons to wear masks.
- Enhance space and social distancing guidance in all airport facilities.
- Maintain continuity of operations and fiscal responsibility, minimizing added costs to consumers.
- Identify future infrastructure needs and funding opportunities and take advantage of opportunities to advance improvements during periods of reduced demand.
- Maintain effective communications with patrons, using methods ranging from social media to signage in public facilities.

Scenario planning is a useful tool to test and assess a range of impacts and recovery, in terms of levels and timelines. Relevant dimensions of pandemic scenario planning might include the following:

- Timeline of the pandemic;
- Health department guidance/restrictions;
- Levels and timeline of economic recovery; and
- Range of private sector responses, like work from home policies, real estate decisions, and digital cybersecurity investments.

Land use policy actions – The widely documented increases in multimodal activity during the pandemic coincided with increased off-peak trip making. Shopping and recreation trips, typically occurring in the off-peak period, tend to be short (relative to typical work commutes) and local. Together, the increased multimodal activity and localized trip-making provide the right context and impetus to promote mixed use and transit-oriented development (TOD).

TOD has many systemwide benefits:

- Reduced VMT and traffic congestion;
- Increased potential for premium transit investments;
- Increased livability and safety; and
- Improved transportation resiliency.

Even with more telecommuters, travel patterns are likely to shift back to an automobile-focused context as the pandemic eases. In response, TOD land use policies can promote and maintain some of the pandemic-induced travel behavior changes.

Bicycle/pedestrian infrastructure improvements – Coupling land use policy actions with focused investment on bicycle and pedestrian infrastructure improvements would accommodate and promote interest in active transportation spurred by the pandemic.

- Prioritize investments in areas where telecommuting is likely to continue and/or grow, encouraging county residents to rely less on automobiles and more on walking and bicycling for short trips.
- Consider equity consequences as part of multimodal investments, as lower income jobs, particularly in the service and hospitality industries, are rarely conducive to telecommuting accommodations.
- Consider pop-up conversions of vehicle lanes and/or parking to pedestrian/bicycle facilities, delivery space, public outdoor seating space, etc.

Public transit efficiency improvements – The pandemic significantly reduced public transit ridership nationally and in Palm Beach County. Both permanent and temporary mitigation strategies can improve the efficiency of transit operations and incentivize ridership. Utilize available resources to evaluate and optimize transit services with a focus on maintaining high quality, efficient transit service. An example of a useful resource is the Institute for Transportation & Development Policy's The Scorecard tool.[9] The example strategies listed below are most effective when coordinated and implemented as packages of improvements.

Cost efficiency improvements

- Collaborate with Palm Tran on their Route Performance Model (RPM 2.0), which is evaluating cost effective transit alternatives to fixed-route service in the less densely populated areas of Palm Beach County.
- Consolidate routes to reduce operating cost and improve service on high performing routes.

Performance improvements

- Add frequency to high performing routes to encourage ridership and minimize crowded buses.
- Consolidate stops by increasing stop spacing and effectively increasing transit operating speeds, building upon Palm Tran's Stop Consolidation Plan and ADA Transition Plan, efforts designed to improve bus efficiency and accessibility.
- Explore the conversion of roadway travel lanes to dedicated transit lanes as part of the TPA's 561 Plan multimodal studies.

User cost incentives

- Deploy Palm Tran's streamlined fare ticketing program enabling ticket purchase via mobile device, off-board ticket vending, and limiting small change for on board cash purchases.
- Continue Palm Tran's subsidized fare program for disenfranchised riders.
- Subsidize employer-provided fare subsidies or reimbursements.

Other transit improvements

- Continue ongoing efforts to improve cleaning procedures and install UV lighting to kill air-born germs and viruses to promote a safe and clean environment for bus operators and patrons.
- Continue ongoing efforts to install automatic wheelchair securement stations on buses. These stations no longer require the bus operator to secure the wheelchair dependent rider, effectively reducing layover time at bus stops.
- Implement transit signal priority on key arterial routes to improve bus operating speed.
- Install level boarding platforms at some stops on key routes to facilitate easy access for all riders and reduce dwell times at stops. Stops with high levels of wheelchair boardings should be prioritized to maximize accessibility.

[9] https://www.itdp.org/library/standards-and-guides/the-bus-rapid-transit-standard/the-scorecard/

Take advantage of increased telecommuting – Promote telecommuting and invest in telecommuting infrastructure (broadband) as a sustained mobility strategy to reduce peak period travel and traffic congestion. Palm Beach County can build upon the existing program that provides free internet for low-income students in a collaboration between the county Engineering Department and the Palm Beach County School District to expand wifi access in disadvantaged areas.

The following policies, adopted by the Miami-Dade TPO to promote telecommuting, provide a telecommuting policy model for the TPA.[10]

- Develop an outreach program that offers telecommuting training, marketing, and technical support to employers;
- Adopt a general telecommuting policy, promoting the practice as a long-term congestion management strategy;
- Adopt a telecommute mode of travel policy, qualifying broadband infrastructure for transportation infrastructure funding; and
- Adopt a broadband infrastructure investment policy, taking advantage of the precedent set by the State of Florida in 2020 with the passage of House Bill 969, allowing the Florida Turnpike Enterprise, a division of the FDOT, to allocate up to $5 million annually to broadband infrastructure investments.

[10] http://www.miamidadetpo.org/library/studies/mdtpo-telecommute-study-executive-summary-2021-01.pdf

APPENDIX – LITERATURE REVIEW TABLE

Title	Performing Agency/Authors	Source
Initial Impacts of COVID-19 on Transportation Systems: A Case Study of the U.S. Epicenter, the New York Metropolitan Area	Connected Cities with Smart Transportation, NYU	https://c2smart.engineering.nyu.edu/wp-content/uploads/2020/04/C2SMART-COVID-19-Whitepaper_draft_v10_final.pdf
Snapshot of COVID-19 Transportation Impacts in the SCAG Region	Southern California Association of Governments (SCAG)	https://scag.ca.gov/sites/main/files/file-attachments/scag-covid-19-transportation_impacts.pdf
Future of Public Transit and Shared Mobility: Scenario Planning for COVID-19 Recovery	The University of California Institute of Transportation Studies	https://escholarship.org/uc/item/15t657r2#page=24
Planning for Transit in the Post-COVID New Normal	WSP Global Inc	https://www.wsp.com/-/media/Insights/US/transit-in-the-new-normal/Planning-for-Transit-in-the-New-Normal_White-Paper.pdf?la=en-US&hash=12466988CFCD2C3B1FA6CBC83D4FCE3DA0901135
Miami-Dade TPO Telecommute Study	Miami-Dade TPO	http://www.miamidadetpo.org/library/studies/mdtpo-telecommute-study-final-report-2021-01.pdf
The state of transportation in Hampton roads 2020	Hampton Roads Transportation Planning Organization	https://www.hrtpo.org/uploads/docs/T21-03_State%20of%20Transportation%202020%20-%20Final%20Report%20TPO%20Board.pdf
Transportation Funding and Financing during COVID-19	National Governors Association	https://www.nga.org/wp-content/uploads/2020/12/COVID-Memo-Transportation-Funding.pdf
Travel Impacts of the COVID-19 Pandemic Preliminary Analysis	U.S. DOT	https://rosap.ntl.bts.gov/view/dot/53962
Effects of COVID-19-Related Telework Policies on the Transportation System	Caltrans Division of Research, Innovation and System Information	https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/preliminary-investigations/pi-0288-a11y.pdf
Transportation During Coronavirus in New York City (July 2020)	New York University, Rudin Center for Transportation & Sam Schwartz Engineering	https://wagner.nyu.edu/files/faculty/publications/Full%20Report.pdf
Impact of COVID-19 on Travel Behavior and Shared Mobility Systems	University of South Florida - Center for Urban Transportation Research	https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1253&context=cutr_nctr
Mobility Optimization through Vision and Excellence (MOVE)	Jacksonville Transportation Authority (JTA)	https://www.jtafla.com/media/2752/jta_move_phaseone_final.pdf

PALM BEACH Transportation Planning Agency

Summary Points of the October 21, 2021 Governing Board Meeting

PDF versions of the agenda, backup material and presentations as well as audio and video recordings are available for review at PalmBeachTPA.org/Board

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Brightline Update & Rail Safety Pledge – Brightline staff provided an update on operations for a November relaunch, Phase 2 construction, and future expansions. The Board members took a Rail Safety Pledge to be safe around tracks as a part of the ongoing commitment to safety.

Tabled Modification of TPA Personnel Handbook Section 2.4.A – The Board tabled this item to December for further evaluation by TPA staff on impacts of providing two (2) personal days for employees versus adding Rosh Hashanah and Yom Kippur as paid holidays.

Approved Citizen's Advisory Committee (CAC) Appointments – The Board approved Jim Knight as nominated by County Vice Mayor Weinroth through October 2024.

Approved Transportation Disadvantaged Local Coordinating Board (TD LCB) Appointments – The Board approved Marielisa Amador as Representative and Jerome Hill as Alternate for the Agency for Health Care Administration, James Bonfiglio as Representative for the Elderly, and Jodie Boisvert as Representative for Palm Beach County Community Action through October 2024.

Approved Bicycle Trailways Pedestrian Advisory Committee (BTPAC) Appointments – The Board approved Jacey Biery as the Representative and Sally Channon as the Alternate for Palm Beach County Environmental Resources Management through October 2024.

Approved Technical Advisory Committee (TAC) Renewals – The Board approved Chang-Jen Lan as Alternate for the Town of Jupiter, Christopher Marsh as Representative and Bradford O'Brien as Alternate for the Village of Royal Palm Beach, and Melissa Ackert as Alternate for Palm Beach County Engineering through October 2024.

Approved BTPAC Renewals – The Board approved Fadi Nassar as Representative for Palm Beach County Engineering through October 2024.

Approved Amendments to TPA Operating Procedures Section 2.2 – The Board adopted a Resolution approving amendments to establish an Executive Committee of the Governing Board comprised of the Chair, the Vice Chair, and three at-large representatives of the Governing Board. These five officers collectively will meet annually to review and recommend updates to the TPA's Strategic Plan and recommend content related to other TPA initiatives for consideration by the Governing Board.

Approved FY 22-26 Transportation Improvement Program (TIP) Amendment #1 – The Board adopted a Resolution approving the Florida Department of Transportation's (FDOT) requested amendments that included the FY 21 Roll Forward projects and a modification to an existing sidewalk project in the Northmore neighborhood of West Palm Beach.

Approved 2021 Vision Zero Action Plan – TPA consultants presented an update to the 2021 Vision Zero Action Plan that refines and focuses actions based on updated data and analysis. The full report can be viewed at PalmBeachTPA.org/Safety. The Board approved the presented plan and directed staff to bring back a Resolution that encourages law enforcement agencies to prioritize enforcement of safety initiatives.

Approved 2022 Program Polices – The Board approved the program policies and scoring systems for the State Road Modifications (SRM), Local Initiatives (LI), and Transportation Alternatives (TA) funding programs. The program guidelines can be viewed at PalmBeachTPA.org/Funding. The Board requested follow up on the Traditionally Underserved scoring impacts. TPA staff encouraged participation at the Funding Program Workshop on October 26 at the TPA's office.

FDOT's Draft Tentative Work Program – TPA, FDOT and Florida's Turnpike staff provided an overview of the FY 2023-2027 Work Program. The Board declined to move forward with the Resolution requesting timely submittal of FDOT's Draft Tentative Work Program to the TPA.

PALM BEACH Transportation Planning Agency

Summary Points of the November 18, 2021 Governing Board Meeting

PDF versions of the agenda, backup material and presentations as well as audio and video recordings are available for review at PalmBeachTPA.org/Board

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Approved Amendments to TPA Operating Procedures – The Board adopted a Resolution approving TPA Operating Procedure amendments to Section 2.2-B to allow officer elections to occur and terms to commence early if desired by the TPA Governing Board, Section 2.2-D to terminate existing officer terms upon their successors taking office, and Section 2.2-F to include facilitating the process of hiring a new Executive Director and other tasks assigned by the Governing Board as duties of the Executive Committee.

Elected 2022 Officers – The Board adopted a Resolution approving early elections for 2022 officers, establishing individuals who will serve as the 2022 officers, and commencing the terms of the 2022 officers on November 19, 2021.

The 2022 Officers that make up the TPA Executive Committee are:

- Chair: Mayor Robert Weinroth, Palm Beach County
- Vice Chair: Vice Mayor Chelsea Reed, Palm Beach Gardens
- At-Large Member: Mayor Joel Flores, Greenacres
- At-Large Member: Commissioner Maria Marino, Palm Beach County
- At-Large Member: Councilman Michael Napoleone, Wellington

Deferred Selection of a Recruitment Firm – The Board deferred selection of a recruitment firm and possible designation of an interim director to the Executive Committee for a recommendation for potential action at the December 16 Board meeting.

Project Scheduling Report – December 2021

Phases occurring within the next 90 days

Palm Beach TPA & FDOT District 4

The purpose of this report is to ensure stakeholders are aware of upcoming activities for each project to allow for increased input. The TPA has consolidated the FDOT report to focus on TPA priorities and scheduling activities that are occurring within the next 90 days. The full list of scheduling activities is described below.

Scheduled Activity	Description
Multimodal Scoping Checklist (MMSC)	FDOT's Office of Modal Development (OMD) notifies impacted agencies to enter comments about the project scope. The local agency can confirm or discuss context class, minor comments about multimodal features.
Resolution from Agency (for Off-System Projects Only)	If an off-system project is administered by FDOT, the local agency's governing board must pass a resolution endorsing FDOT's delivery of the project.
Review of Scope with Agency	Meet with local agency to review and confirm scope prior to FDOT advertising for consultant acquisition.
Execution Date (Design)	FDOT Design starts.
Project Kickoff Meeting	FDOT Design Team coordinates with local agency. Contact the FDOT project manager for date/time/location of the meeting.
Initial Field Review	Field Review meeting. Typically occurs at the project site.
Initial Engineering	30% plans to reviewers. Stakeholders provide review and feedback on the approved Typical Section.
Public Information Workshop	FDOT conducts public information workshop.
Constructability Plans	60% plans to reviewers. At this time most of the Design is complete, no scope discussion, review focuses on items to be constructed, their construction impacts, and materials to be used.
Plans Specification and Estimates (PSE) Meeting	FDOT PM arranges field review with all reviewers to evaluate the final engineering plans with respect to actual field conditions.
Biddability Plans to Reviewers	90% plans. At this time, Design is complete. Verifying quantities and pay items.
Production	100% plans. Plans are complete.
Local Agency Program (LAP) Commitment	Agency and FDOT commits the project funds and budget to the Legislature and the Governor's office.
Letting	Bids are opened and the apparent low bid contract is determined. Construction typically begins 4 to 6 months after letting.
Construction Notice to Proceed (NTP)	Construction starts. Construction dates for FDOT administered projects can be found through the FDOT Operations Center.

For more information on a project, please contact the FDOT District 4 office at 954.486.1400 and ask to be transferred to the FDOT Project Manager for the specific project. For the FDOT copy of the report with the full project schedule, contact Larry Wallace at larry.wallace@dot.state.fl.us or 954.777.4208.

Please note, the dates shown in this report are a snapshot and dates can change frequently. Updated reports are requested monthly from FDOT.

FM #	Location	Type of Work	Lead Agency	Phase Milestone	Date
SIS Capacity					
4127331	I-95 AT 10TH AVE N	INTERCHANGE - ADD LANES	FDOT	Initial Field Review	12/22/2021
4369631	I-95 AT 6TH AVE S	INTERCHANGE - ADD LANES	FDOT	PSE Meeting	12/30/2021
4192511	BEELINE HWY/SR-710 FROM NORTHLAKE BLVD TO BLUE HERON BLVD/SR-708	ADD LANES & RECONSTRUCT	FDOT	Biddability	1/6/2022
4441211	I-95 AT BELVEDERE RD SB OFF RAMP	PRELIMINARY ENGINEERING	FDOT	Constructability Plans	1/19/2022
4369631	I-95 AT 6TH AVE S	INTERCHANGE - ADD LANES	FDOT	Biddability	2/2/2022
4397581	I-95 AT INDIANTOWN RD	INTERCHANGE - ADD LANES	FDOT	Constructability Plans	2/4/2022
4417221	SOUTHERN BLVD/SR-80 AT AUSTRALIAN AVE	INTERSECTION IMPROVEMENT	FDOT	Letting	2/4/2022
State Road Modifications					
4417561	SR-80 FROM SR 15 TO CR 880	LIGHTING	FDOT	Kickoff Meeting	12/3/2021
4440791	BOYNTON BEACH FROM I-95 TO US-1 AND NEARBY STREETS	BIKE LANE/SIDEWALK	FDOT	Initial Engineering	12/3/2021
4400461	LAKE WORTH RD/SR-802 ROUNDABOUT PEDESTRIAN IMPROVEMENTS	PEDESTRIAN SAFETY IMPROVEMENT	FDOT	Biddability	12/7/2021
4405752	ATLANTIC AVE/SR-806 FROM WEST OF LYONS RD TO TURNPIKE	PD&E/EMO STUDY	FDOT	Kickoff Meeting	12/22/2021
4416321	LAKE WORTH RD/SR-802 FR RAULERSON DR TO PALM BEACH STATE COLLEGE ENT	RESURFACING	FDOT	Production	1/3/2022
Local Initiatives Program					
4443791	YAMATO RD FROM WEST OF JOG RD TO I-95 AND 16 INTERSECTIONS IN DOWNTOWN BOCA RATON	TRAFFIC CONTROL DEVICES/SYSTEM	BOCA RATON	LAP Commitment	12/3/2021
4443701	LYONS RD/SANSBURY WAY FROM FOREST HILL BLVD TO OKEECHOBEE BVLD	BIKE LANE/SIDEWALK	PALM BEACH COUNTY	LAP Commitment	1/7/2022
4443711	WESTGATE AVE FROM WABASSO DRIVE TO CONGRESS AVE	BIKE LANE/SIDEWALK	PALM BEACH COUNTY	LAP Commitment	1/7/2022
4415701	36TH ST FROM AUSTRALIAN AVE TO POINSETTA AVE	BIKE LANE/SIDEWALK	WEST PALM BEACH	Initial Engineering	2/1/2022
Transportation Alternatives Program					
4400151	NORTH SHORE PEDESTRIAN BRIDGE (between 39th St and 43rd St)	PEDESTRIAN BRIDGE	FDOT	Initial Engineering	12/10/2021
4483031	CHERRY RD FROM MILITARY TRL TO QUAIL DR	BIKE LANE/SIDEWALK	PALM BEACH COUNTY	Kickoff Meeting	2/4/2022
4443661	A1A/OCEAN DR FROM N OF DONALD ROSS RD TO S OF INDIANTOWN RD	SIGNING/PAVEMENT MARKINGS	PALM BEACH COUNTY	LAP Commitment	2/4/2022
Other FDOT & Local Projects					
4417521	A1A ADJACENT TO JOHN D MACARTHUR BEACH STATE PARK	MISCELLANEOUS CONSTRUCTION	FDOT	Letting	12/3/2021
4416311	US-27 FROM HENDRY COUNTY LINE TO SR-80	RESURFACING	FDOT	Construction Notice to Proceed (NTP)	12/3/2021
4479931	SR-7/US-441 SR-808/GLADES RD TO KIMBERLY BLVD	SIDEWALK	FDOT	Execution Date (Design)	12/3/2021
4190132	SOUTHERN BLVD/SR-80 FROM WASHINGTON AVE TO A1A	LANDSCAPING	FDOT	Letting	12/3/2021
4479931	SR-7/US-441 SR-808/GLADES RD TO KIMBERLY BLVD	SIDEWALK	FDOT	Kickoff Meeting	12/10/2021
4438431	LAKE WORTH RD/SR-802 AT HAVERHILL RD	WIDEN/RESURFACE EXIST LANES	FDOT	Constructability Plans	12/28/2021
4378781	MILITARY TRAIL/SR 809 AT FOREST HILL BLVD	INTERSECTION IMPROVEMENT	FDOT	Production	1/3/2022

FM #	Location	Type of Work	Lead Agency	Phase Milestone	Date
4331097	I-95 AT PALMETTO PARK RD	LANDSCAPING	FDOT	Letting	1/7/2022
4417551	US-1/SR-5 FROM BROWARD COUNTY LINE TO SPANISH RIVER BLVD	ARTERIAL TRAFFIC MGMT SYSTEMS	FDOT	PSE Meeting	1/25/2022
4417761	I-95 FROM S OF 10TH AVE N TO SR-882/FOREST HILL BLVD	ADV TRAVELER INFORMATION SYSTM	FDOT	Letting	1/26/2022
4417751	LAKE WORTH RD/SR-802 FROM EB SR-802/LAKE AVE TO WB SR-802/LUCERNE AVE	TRAFFIC SIGNAL UPDATE	FDOT	Letting	1/26/2022
4417551	US-1/SR-5 FROM BROWARD COUNTY LINE TO SPANISH RIVER BLVD	ARTERIAL TRAFFIC MGMT SYSTEMS	FDOT	Biddability	2/7/2022
4443441	I-95 FROM SOUTH OF SPANISH RIVER BLVD TO NORTH OF YAMATO RD	LANDSCAPING	FDOT	Constructability Plans	2/8/2022
4190132	SOUTHERN BLVD/SR-80 FROM WASHINGTON AVE TO A1A	LANDSCAPING	FDOT	Construction Notice to Proceed (NTP)	2/9/2022
4456281	INTERSECTION LIGHTING IMPROVEMENTS- PALM BEACH COUNTY	LIGHTING	FDOT	Initial Field Review	2/11/2022
4458821	SR-7/US-441 AT LAKE WORTH RD	INTERSECTION IMPROVEMENT	FDOT	Initial Field Review	2/16/2022
Major Maintenance					
4461771	SR-7/US-441 FROM NORTH OF SOUTHERN BLVD/SR-80 TO OKEECHOBEE BLVD/SR-704	RESURFACING	FDOT	Constructability Plans	11/29/2021
4476691	E OCEAN AVE/SR-804 FROM SR-5/US-1 TO A1A	RESURFACING	FDOT	Execution Date (Design)	12/3/2021
4461051	STATE MARKET RD FROM SR-15 TO US-441/E MAIN ST	RESURFACING	FDOT	Agency Scope Review	12/6/2021
4476571	YAMATO RD/SR-794 FROM WEST OF I-95 TO US-1/FEDERAL HWY	RESURFACING	FDOT	Agency Scope Review	12/8/2021
4460971	BEELINE HWY/SR-710 FROM E OF PRATT & WHITNEY TO E OF RAILROAD TRACKS	RESURFACING	FDOT	Public Information Workshop	12/17/2021
4476631	A1A FROM SOUTH OF LAKE AVE TO N OF IBIS WAY	RESURFACING	FDOT	Execution Date (Design)	12/17/2021
4461031	MILITARY TRAIL FROM SOUTH OF DEVONS RD TO NORTH OF FLAG DR	RESURFACING	FDOT	Constructability Plans	12/27/2021
4461021	SR-15 FROM N OF 1ST ST TO PALM BEACH/MARTIN COUNTY LINE	RESURFACING	FDOT	Constructability Plans	12/27/2021
4460971	BEELINE HWY/SR-710 FROM E OF PRATT & WHITNEY TO E OF RAILROAD TRACKS	RESURFACING	FDOT	PSE Meeting	12/27/2021
4439941	SR-15/US-441 FROM SOUTH OF SHIRLEY DR TO EAST MAIN ST	RESURFACING	FDOT	Production	1/3/2022
4461012	SR-80/US-98 FROM EAST OF PARKER AVE TO WEST OF WASHINGTON RD	BRIDGE REHABILITATION	FDOT	PSE Meeting	1/5/2022
4444771	A1A FROM SOUTH OF GRAND BAY CT TO SOUTH OF LINTON BLVD	RESURFACING	FDOT	Initial Engineering	1/6/2022
4457691	A1A / BLUE HERON BLVD OVER INTRACOASTAL WATERWAY	BRIDGE-REPAIR/REHABILITATION	FDOT	Public Information Workshop	1/6/2022
4460971	BEELINE HWY/SR-710 FROM E OF PRATT & WHITNEY TO E OF RAILROAD TRACKS	RESURFACING	FDOT	Biddability	1/6/2022
4476571	YAMATO RD/SR-794 FROM WEST OF I-95 TO US-1/FEDERAL HWY	RESURFACING	FDOT	Execution Date (Design)	1/7/2022
4476651	BOYNTON BEACH BLVD/SR-804 FROM SR-7/US-441 TO LYONS RD	RESURFACING	FDOT	Execution Date (Design)	1/7/2022
4476631	A1A FROM SOUTH OF LAKE AVE TO N OF IBIS WAY	RESURFACING	FDOT	Kickoff Meeting	1/19/2022
4461011	SR-80/US-98 FROM EAST OF PARKER AVE TO WEST OF WASHINGTON RD	RESURFACING	FDOT	Public Information Workshop	1/20/2022
4428911	US-1 OVER EARMAN RIVER BRIDGE	BRIDGE REPLACEMENT	FDOT	Public Information Workshop	1/25/2022

FM #	Location	Type of Work	Lead Agency	Phase Milestone	Date
4461011	SR-80/US-98 FROM EAST OF PARKER AVE TO WEST OF WASHINGTON RD	RESURFACING	FDOT	PSE Meeting	1/27/2022
4476621	A1A FROM LINTON BLVD TO E ATLANTIC AVE	RESURFACING	FDOT	Execution Date (Design)	1/28/2022
4476571	YAMATO RD/SR-794 FROM WEST OF I-95 TO US-1/FEDERAL HWY	RESURFACING	FDOT	Kickoff Meeting	1/31/2022
4428911	US-1 OVER EARMAN RIVER BRIDGE	BRIDGE REPLACEMENT	FDOT	PSE Meeting	2/1/2022
4461051	STATE MARKET RD FROM SR-15 TO US-441/E MAIN ST	RESURFACING	FDOT	Initial Engineering	2/3/2022
4461011	SR-80/US-98 FROM EAST OF PARKER AVE TO WEST OF WASHINGTON RD	RESURFACING	FDOT	Biddability	2/7/2022
4461012	SR-80/US-98 FROM EAST OF PARKER AVE TO WEST OF WASHINGTON RD	BRIDGE REHABILITATION	FDOT	Biddability	2/7/2022
4457691	A1A / BLUE HERON BLVD OVER INTRACOASTAL WATERWAY	BRIDGE-REPAIR/REHABILITATION	FDOT	Constructability Plans	2/8/2022
4460991	US-1 FROM N QUADRILLE BLVD TO PALM BEACH LAKES BLVD	RESURFACING	FDOT	Constructability Plans	2/9/2022

PALM BEACH Transportation Planning Agency

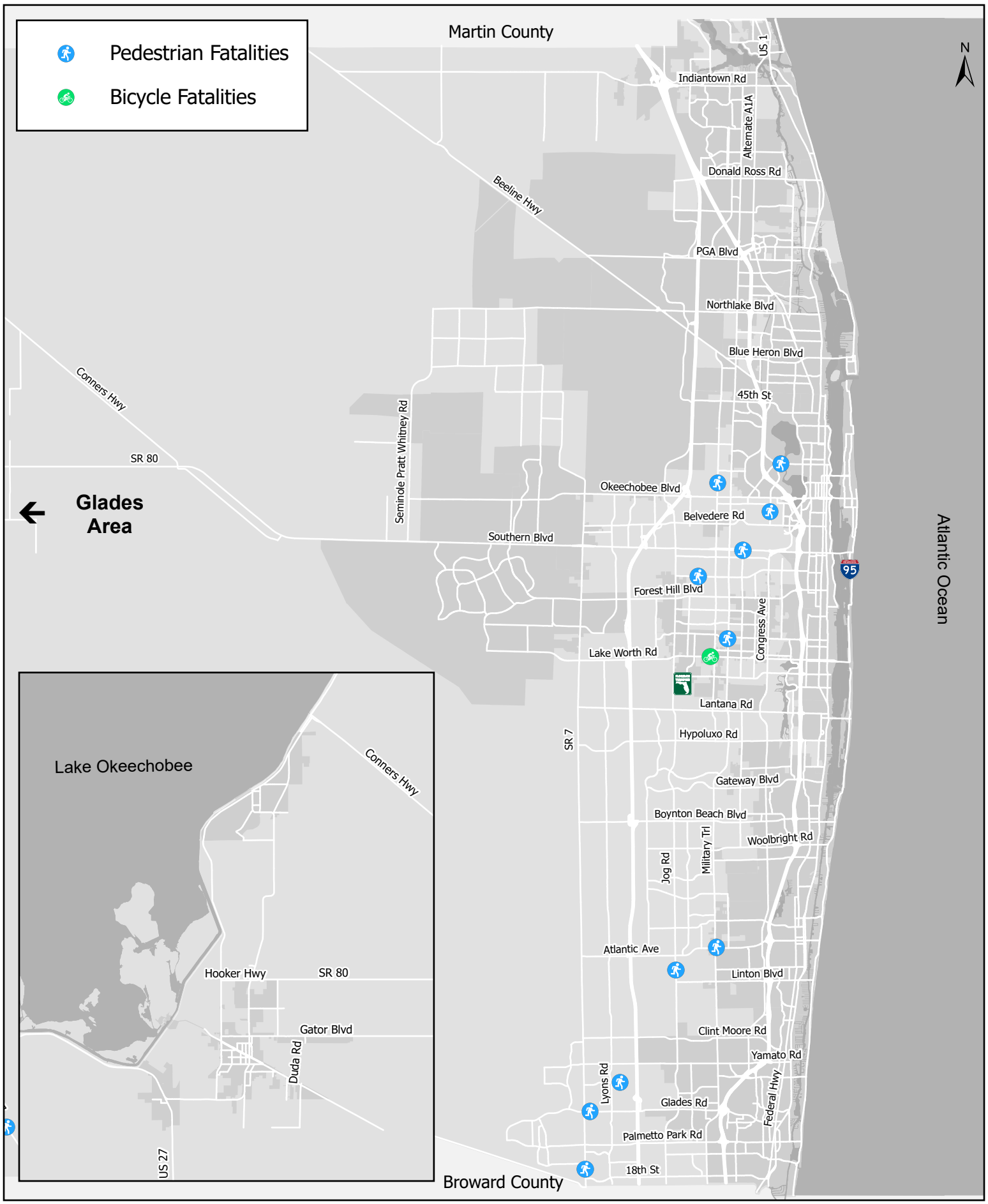
4.C

Pedestrian and Bicycle Quarterly Fatal Crash Analysis

July – September 2021

The general information, individual information, and crash diagram were taken from crash reports downloaded from the Signal Four Analytics – University of Florida GeoPlan Center website and reformatted for this analysis. The crash summary and potential actions were compiled by TPA staff and consultants. Please note that the crash summary and potential actions are preliminary and do not represent any formal conclusions, legal or otherwise.

Fatal Ped/Bike Crashes - July 1 to Sept. 30, 2021



Date: 11/22/2021

Source: Signal Four Analytics

0 1.25 2.5 5 Miles

Document Path: C:\TPA\Palm Beach TPA\GIS - Documents\Projects\Safety\Signal4\Signal4.aprx

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24516438

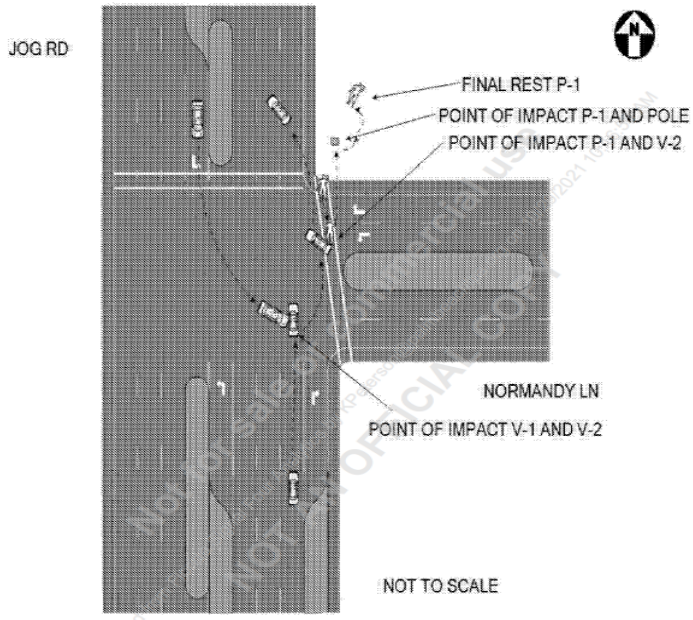
General Information

Crash Location	Jog Road (a County road) at Normandy Lane (a private road)				
Google Maps	https://goo.gl/maps/s7aMuXEWGCwKfrZf6			**Municipality**	Unincorporated
Crash Date	Sunday, July 4, 2021	**Time of Crash**	11:42 AM	**Posted Speed (Major)**	40 MPH
Weather	Cloudy	**Road Surface**	Dry	**Posted Speed (Minor)**	25 MPH
Lighting	Daylight	**Harmful Event**	Collision with vehicle/Collision with pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	Failed to yield the right-of-way	M/87	Not Obscured	No	No	No	None
V2 Driver	No contributing action	M/21	Not Obscured	No	No	No	None
P1 Pedestrian	No contributing action	F/79	-	-	No	No	Fatal

Crash Diagram



Crash Summary

Vehicle 1 (V1) was traveling southbound on Jog Road and made a left turn onto Normandy Lane. Vehicle 2 (V2) was traveling northbound on Jog Road. Pedestrian 1 (P1) was walking southbound along the crosswalk on the east leg of the intersection. V1 failed to yield and impacted V2. V2 began to rotate counterclockwise towards Normandy Lane, impacting P1. P1 was pronounced decease on-scene by fire rescue personnel.

Potential Actions

1. Palm Beach County to evaluate the crosswalk markings and the geometric configuration of the crosswalk on the east leg of the intersection to obtain a straight crossing configuration and greater setback from the roadway (crash diagram above does not convey then bent angle in the crosswalk). County to consider installing special emphasis crosswalk markings at the intersection.
2. Palm Beach County to evaluate the left-turn signal for potential conversion of “protected/permitted” to “protected-only” operation.
3. Palm Beach County to evaluate and potentially install TURNING VEHICLES YIELD TO PEDESTRIANS sign (R10-15).

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24516661

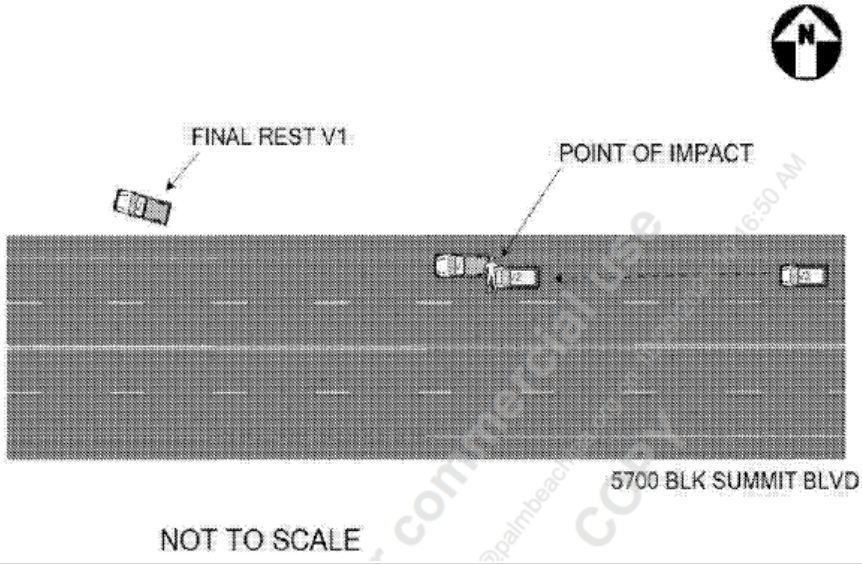
General Information

Crash Location	Summit Boulevard (a County road), 316 feet east of Coral Drive (a County road)				
Google Maps	https://goo.gl/maps/etS3jZLmrxkKbKg8A			**Municipality**	Unincorporated
Crash Date	Friday, July 9, 2021	**Time of Crash**	11:25 PM	**Posted Speed (Major)**	40 MPH
Weather	Clear	**Road Surface**	Dry	**Posted Speed (Minor)**	-
Lighting	Dark-Lighted	**Harmful Event**	Collision with Pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
NM 1 Non-Motorist	In roadway improperly	M/67	-	-	No	No	Fatal
V2 Driver	No contributing action	F/31	Not Obscured	No	Unknown*	Yes*	None

Crash Diagram



Crash Summary

Vehicle 1 (V1) stopped between the second lane and bike lane, westbound Summit Boulevard east of Coral Drive. V1's driver was outside collecting metal scraps behind the rear bumper of his vehicle. Although it is not explicitly stated in the report, it was assumed that the owner of the vehicle was the driver, and also identified as "non-motorist" (NM1). Vehicle 2 (V2) was traveling westbound on Summit Boulevard in the second lane and did not see the stopped V1. V2's passenger front bumper impacted V1's rear bumper, causing NM1 to be trapped between the two vehicles. NM1 was transported to St. Mary's Medical Center where he succumbed two days later due to the critical injuries sustained from the collision.

**The driver of V2 is suspected to have been under the influence of alcohol; drug test results are pending.*

***The crash report incorrectly notes that this crash occurred in the Village of Wellington.*

Potential Actions

Consistent with Vision Zero Action Plan's Cultural-Related Action 8, TPA to partner with the police department to provide motorists with education and awareness about rules of the road and distracted driving.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24517075

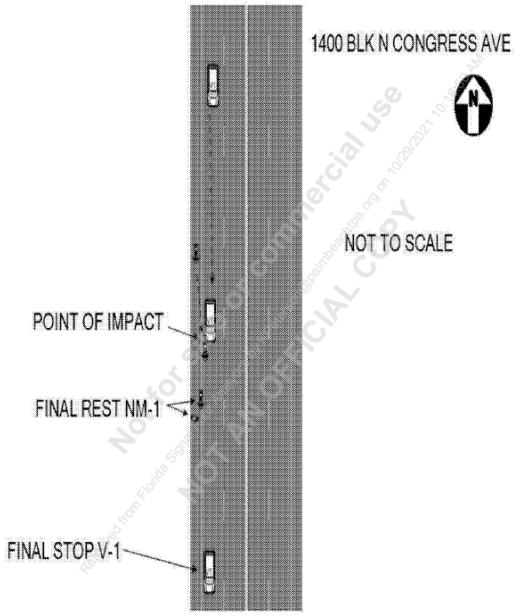
General Information

Crash Location	N Congress Avenue (a County road), 228 feet north of Cherry Road (a County road)				
Google Maps	https://goo.gl/maps/fNB8dRmaC3tXZJb89			**Municipality**	Unincorporated
Crash Date	Saturday, July 17, 2021	**Time of Crash**	10:19 PM	**Posted Speed (Major)**	40 MPH
Weather	Clear	**Road Surface**	Dry	**Posted Speed (Minor)**	30 MPH
Lighting	Dark-Lighted	**Harmful Event**	Collision with Pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	No contributing action	F/29	Not Obscured	No	No	No	None
NM1 Non-Motorist	Fell off mobility scooter from sidewalk	M/63	-	-	Unknown*	Unknown*	Fatal

Crash Diagram



Crash Summary

Vehicle 1 (V1) was traveling southbound on N Congress Avenue, north of Cherry Road**. Non-motorist 1 (NM1) was on a three-wheel mobility scooter traveling southbound on the western sidewalk ahead of V1. As V1 got closer, NM1 fell from the scooter into the path of V1. V1 failed to avoid collision and fatally impacted NM1.

**Drug and alcohol tests results pending*

***Crash report lat/long coordinates are inconsistent with its narrative, which states "south" of Cherry Road*

Potential Actions

1. Palm Beach County to evaluate whether sidewalk slope is ADA-compliant, and to consider widening the sidewalks wherever possible along this corridor, particularly on the bridge where it appears that the sidewalk is narrower with no lateral clearance.
2. Consistent with Vision Zero Action Plan's Cultural-Related Action 3e, Palm Beach TPA to consider distributing reflective vests to and encouraging all bicyclists, scooter riders, and motorcyclists to wear them, especially at night.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24518626

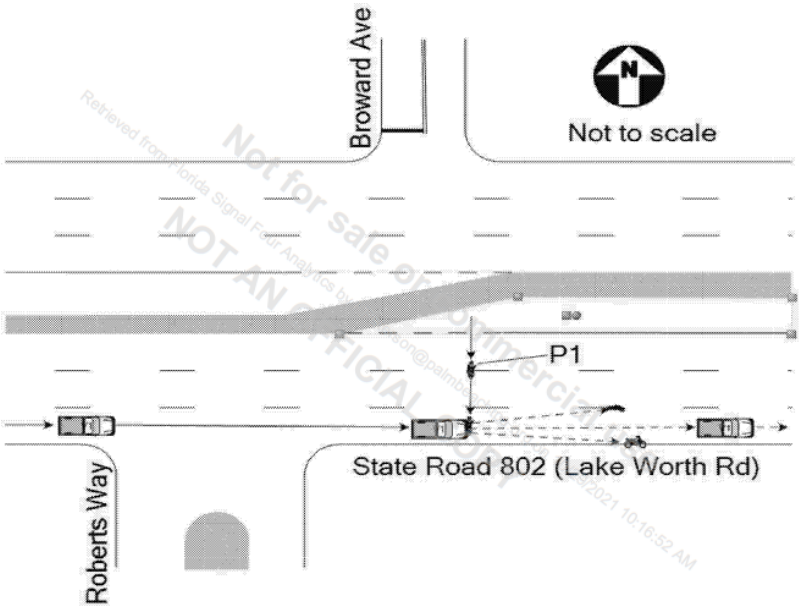
General Information

Crash Location	SR-802/Lake Worth Road (a State road) 56 feet east of Roberts Way (a private road)				
Google Maps	https://goo.gl/maps/EntxYHUS7iQAkaaQ8			**Municipality**	Unincorporated
Crash Date	Thursday, August 12, 2021	**Time of Crash**	10:59 PM	**Posted Speed (Major)**	45 MPH
Weather	Clear	**Road Surface**	Dry	**Posted Speed (Minor)**	-
Lighting	Dark-Lighted	**Harmful Event**	Collision with bicyclist		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	No contributing action	F/28	Not Obscured	No	Unknown	Unknown	None
*B1 Bicyclist	In roadway improperly; Mid-block crossing	M/56	-	-	No	No	Fatal

Crash Diagram



Crash Summary

Vehicle 1 (V1) was traveling eastbound on Lake Worth Road. Bicyclist 1 (B1) was crossing midblock, going southbound and entered the path of V1, causing an impact between the front of the vehicle and the right side of the bicycle. B1 was pronounced dead on the scene.

**Crash Diagram refers to B1 as "P1".*

Potential Actions

1. FDOT to consider installing NO PEDESTRIAN CROSSING and USE CROSSWALK signs (R9-3a and R9-3b) in the median.
2. FDOT to consider installing pedestrian barriers or landscaping along the median to discourage midblock crossings.
3. Consistent with Vision Zero Action Plan's Cultural-Related Action 3e), Palm Beach TPA to consider distributing reflective vests to and encouraging all bicyclists, scooter riders, and motorcyclists to wear them, especially at night.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24518804

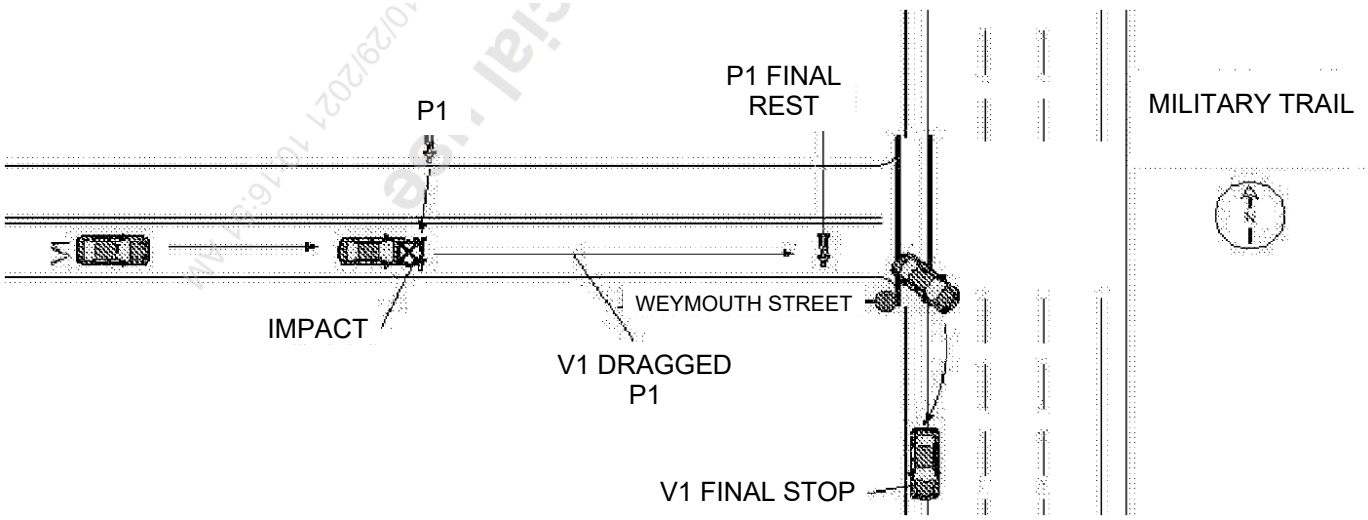
General Information

Crash Location	Weymouth Street (a County road), 137 feet west of SR-809/South Military Trail (a State road)				
Google Maps	https://goo.gl/maps/dAyMbezK1oXkvGA98			**Municipality**	Unincorporated
Crash Date	Monday, August 16, 2021	**Time of Crash**	04:41 AM	**Posted Speed (Major)**	40 MPH
Weather	Clear	**Road Surface**	Dry	**Posted Speed (Minor)**	30 MPH
Lighting	Dark-Lighted	**Harmful Event**	Collision with pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	No contributing action	M/64	Not Obscured	No	No	No	Possible injury
P1 Pedestrian	Crossing roadway; Darted/dashed	F/31	-	-	Unknown	Unknown	Fatal

Crash Diagram



Crash Summary

Vehicle 1 (V1) was traveling eastbound on Weymouth Street approaching S Military Trail. Pedestrian 1 (P1) was on the north side of Weymouth Street, just west of S Military Trail. P1 unexpectedly began to dash, mid-block, towards the south side of Weymouth Street, in front of V1. P1 was then dragged under V1 for approximately 20 feet before coming to a stop. P1 was transported to St. Mary's Hospital where she was later pronounced dead.

Potential Actions

Palm Beach County to evaluate the potential of installing street lights along Weymouth Street.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24159362

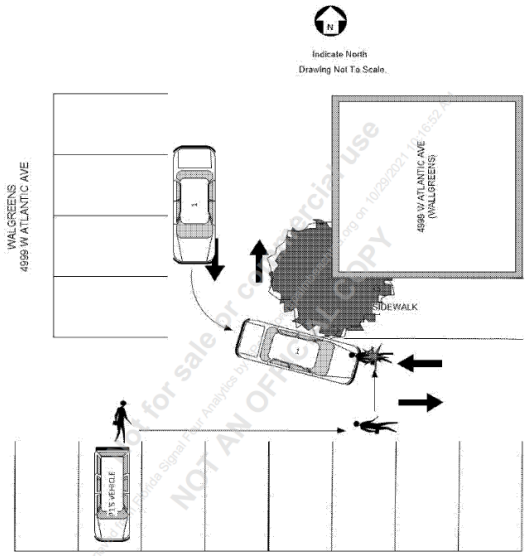
General Information

Crash Location	Inside Walgreens parking lot, located at the NE corner of SR-806/West Atlantic Avenue (a State road) and Military Trail (a County road)				
Google Maps	https://goo.gl/maps/YbkEnzma8R91QMZs9			**Municipality**	Delray Beach
Crash Date	Wednesday, August 18, 2021	**Time of Crash**	11:43 AM	**Posted Speed (within lot)**	10 MPH
Weather	Clear	**Road Surface**	Dry		
Lighting	Daylight	**Harmful Event**	Collision with pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	Failure to yield the right-of-way	M/68	Not Obscured	No	No	No	None
P1 Pedestrian	No contributing action	M/80*	-	-	Unknown	Unknown	Fatal

Crash Diagram



Crash Summary

Vehicle 1 (V1) was traveling southbound through the surface parking lot of Walgreens approaching a T-intersection and preparing to make a left turn. Pedestrian 1 (P1) was walking northbound through the parking lot (possibly within the marked crosswalk**) from his vehicle, which was parked on the south side of the parking lot. While V1 was turning left to travel east, his front left corner struck P1. P1 fell to the ground, sustaining serious injuries, and was transported to Delray Medical Center where he was later pronounced dead.

**The information about P1 was obtained from the narrative and is not included under the Person Records section of the police report.*

*** This information is obtained from the crash diagram relative to aerial view of the parking lot.*

Potential Actions

1. City of Delray and Walgreens to evaluate and improve pavement markings within the parking lot, particularly the marked crosswalks leading to the front entrance. Currently, the sidewalk and crosswalk connecting to Military Trail is not continuous.
2. City of Delray and Walgreens to evaluate the installation of speed humps within the parking lot.
3. City of Delray and Walgreens to evaluate for any potential sight distance limitations and potentially consider removal or trimming of landscaping in front of Walgreens main entrance.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24519269

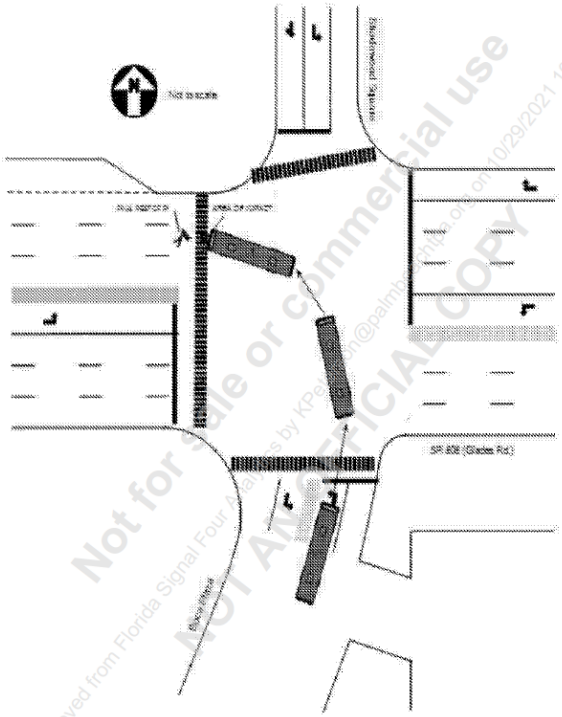
General Information

Crash Location	Intersection of SR-808/Glades Road (a State road) and Boca Plaza (driveway)				
Google Maps	https://goo.gl/maps/B36B31ruTnp2wwAc8			**Municipality**	Unincorporated
Crash Date	Wednesday, August 18, 2021	**Time of Crash**	12:22 PM	**Posted Speed (Major Road)**	45 MPH
Weather	Clear	**Road Surface**	Dry	**Posted Speed (Minor Road)**	Driveway
Lighting	Daylight	**Harmful Event**	Collision with pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	No Contributing Action	M/57	Other, See Narrative	No	No	No	None
P2 Pedestrian	No Improper Action	F/94	-	-	No	No	Fatal

Crash Diagram



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Crash Summary

Vehicle 1 (V1), a bus, was making a northbound left turn exiting West Winds of Boca located at SR-808/Glades Road and Shadowood Square/Boca Plaza. Pedestrian 2 (P2) was crossing SR-808/Glades Road southbound in the crosswalk on the west leg of the intersection. V1 turned west onto SR-808/Glades Road and struck P2. P2 was declared dead from sustained injuries.

Potential Actions

1. FDOT and/or Palm Beach County to evaluate the signal phasing at the intersection SR-808/Glades Road and Shadowood Square/Boca Plaza including left-turn phasing, and “walk” and “flashing don’t walk” times to accommodate for elderly population.
2. Palm Beach TPA to work with partner agencies to identify safety improvements at the subject intersection including leading pedestrian interval (LPI) signal phasing and reduced cycle lengths.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24519688

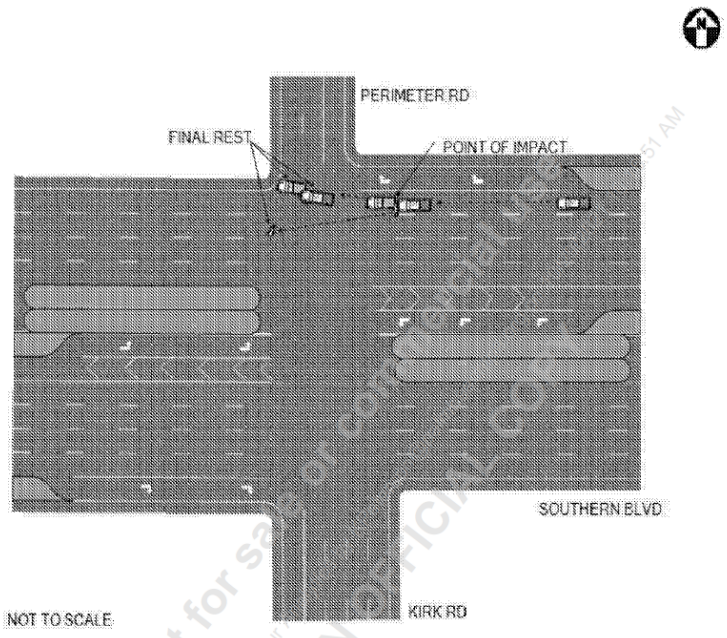
General Information

Crash Location	Intersection of SR-80/Southern Boulevard (a State road) and Kirk Road (a County road)				
Google Maps	https://goo.gl/maps/UKhiuVdiSHvZNpbV8			**Municipality**	Unincorporated
Crash Date	Saturday, August 28, 2021	**Time of Crash**	6:01 PM	**Posted Speed (Major Road)**	50 MPH
Weather	Clear	**Road Surface**	Dry	**Posted Speed (Minor Road)**	35 MPH
Lighting	Daylight	**Harmful Event**	Collision with parked motor vehicle		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	Operate MV in Careless or Negligent Manner	M/79	Not Obscured	Unknown	No	No	Non-incapacitating
P2 Pedestrian	Other, Explain in Narrative	M/58	-	-	No	No	Incapacitating
P3 Pedestrian	Other, Explain in Narrative	F/60	-	-	No	No	Fatal

Crash Diagram



Crash Summary

Vehicle 2 (V2) was stopped along the westbound travel lane of SR-80/Southern Boulevard with the hazard lights activated. Pedestrian 2 (P2) exited the vehicle to retrieve items that had fallen from the vehicle onto the roadway. Pedestrian 3 (P3) stopped to assist P2. The westbound traffic signal remained red while they picked up items from the roadway. Vehicle 1 (V1) failed to slow and yield to traffic and struck V2. P2 and P3 were struck as a result and sustained injuries. P3 was declared dead at the crash scene.

Potential Actions

1. Palm Beach TPA to partner with Palm Beach County Sheriff's Office and FDOT for roadside assistance programs and education.
2. Consistent with Vision Zero Action Plan's Policy Related Action 3b), Palm Beach TPA to partner with local law enforcement agencies to identify ways to regulate distracted driving as a primary offense.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24520159

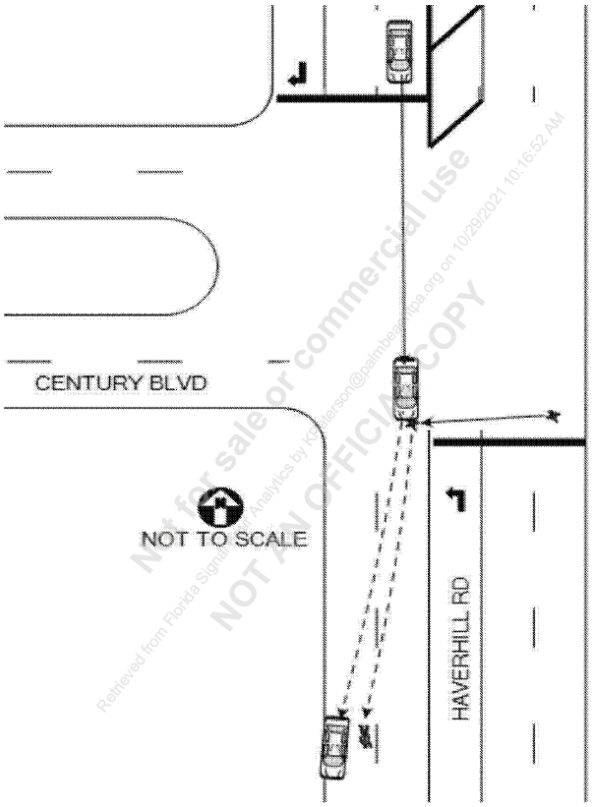
General Information

Crash Location	Intersection of Century Boulevard (a private road) and Haverhill Road (a County road)				
Google Maps	https://goo.gl/maps/qvXnSwphPBvvp1D4A			**Municipality**	Unincorporated
Crash Date	Monday, September 6, 2021	**Time of Crash**	8:45 PM	**Posted Speed (Major Road)**	40 MPH
Weather	Rain	**Road Surface**	Wet	**Posted Speed (Minor Road)**	10 MPH
Lighting	Dark-Lighted	**Harmful Event**	Collision with pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	No Contributing Action	M/73	Inclement Weather	No	No	No	None
P2 Pedestrian	Unknown	M/59	-	-	No	No	Fatal

Crash Diagram



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Crash Summary

Vehicle 1 (V1) was traveling south on Haverhill Road. Pedestrian 2 (P2) was traveling west in the crosswalk across Haverhill Road. V1 struck P2. P2 was declared dead at the scene.

Potential Actions

1. Palm Beach County to evaluate and improve existing intersection lighting conditions, if possible.
2. Palm Beach County to evaluate and implement safety improvements including a high emphasis crosswalk and retroreflective backplates at the subject intersection.
3. Palm Beach County to evaluate installing leading pedestrian intervals (LPI) signal phasing and accessible pedestrian signal (APS) at the subject intersection.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24520590

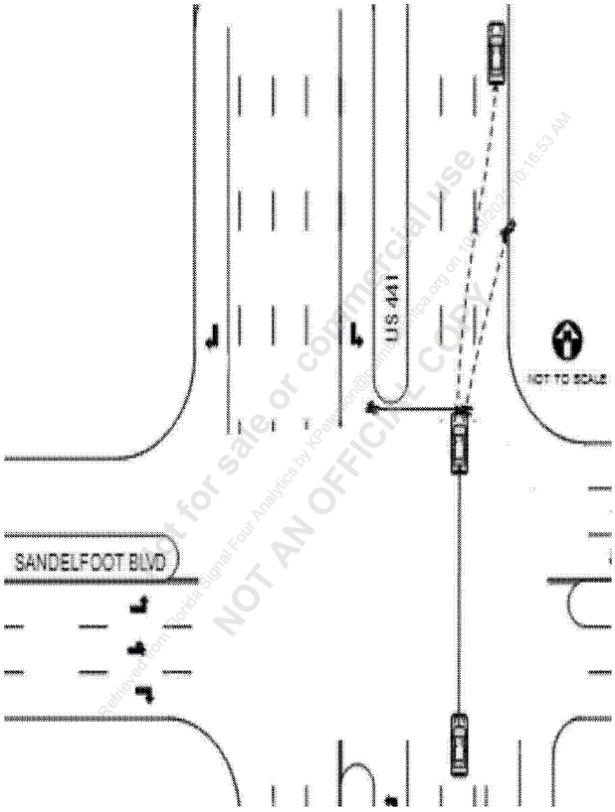
General Information

Crash Location	Intersection of Sandalfoot Boulevard (a County road) and US-441 (a State road)				
Google Maps	https://goo.gl/maps/phT3aGBaejmB2sEr9			**Municipality**	Unincorporated
Crash Date	Saturday, September 11, 2021	**Time of Crash**	10:41 PM	**Posted Speed (Major Road)**	45 MPH
Weather	Clear	**Road Surface**	Dry	**Posted Speed (Minor Road)**	30 MPH
Lighting	Dark-Lighted	**Harmful Event**	Collision with pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	No Contributing Action	F/61	Not Obscured	No	No	No	None
P2 Pedestrian	Dart/Dash	F/20	-	-	No	No	Fatal

Crash Diagram



Crash Summary

Vehicle 1 (V1) was traveling north on US-441. Pedestrian 2 (P2) was traveling east, crossing US-441 in the crosswalk. P2 ran in front of and was struck by V1. P2 was declared dead within 30 days.

Potential Actions

1. FDOT and/or Palm Beach County to evaluate and improve existing lighting conditions, if possible.
2. Consistent with the Vision Zero Action Plan's Policy-Related Action 5a, Palm Beach TPA to work with partner agencies to identify a target posted speed limit based on context classification and historical crash data.
3. FDOT to evaluate installing mobile speed feedback signs for speed warning and enforcement.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24599946

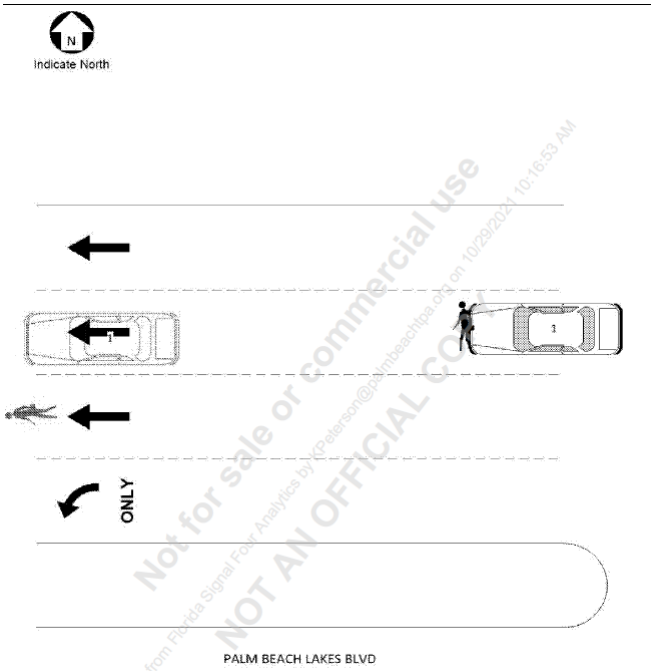
General Information

Crash Location	Intersection of Palm Beach Lakes Boulevard (a County road) and Forum Way (a City road)				
Google Maps	https://goo.gl/maps/G4yWkhRMRwd8mhrq9			**Municipality**	West Palm Beach
Crash Date	Monday, September 13, 2021	**Time of Crash**	8:18 PM	**Posted Speed (Major Road)**	40 MPH
Weather	Clear	**Road Surface**	Dry	**Posted Speed (Minor Road)**	-
Lighting	Dark-Lighted	**Harmful Event**	Collision with pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	Hit and run	Unknown	-	-	-	-	-
P2 Pedestrian	Other, Explain in Narrative	-	-	-	Unknown	Unknown	Fatal

Crash Diagram



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Crash Summary

Vehicle 1 (V1) was traveling west along Palm Beach Lakes Boulevard. Pedestrian 2 (P2) was in the westbound lanes, unknown action, when struck by V1. V1 fled the scene and there were no witnesses. Investigation is ongoing.

Potential Actions

1. Palm Beach County and/or City of West Palm Beach to evaluate and improve existing lighting conditions, if possible.
2. Consistent with the Vision Zero Action Plan's Policy-Related Action 5a, Palm Beach TPA to work with partner agencies to identify a target posted speed limit for Palm Beach Lakes Boulevard based on context classification and historical crash data.
3. Palm Beach County and/or City of West Palm Beach to evaluate and implement safety improvements including high emphasis crosswalk and retroreflective backplates at the intersection of Palm Beach Lakes Boulevard and Forum Way.

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24520821

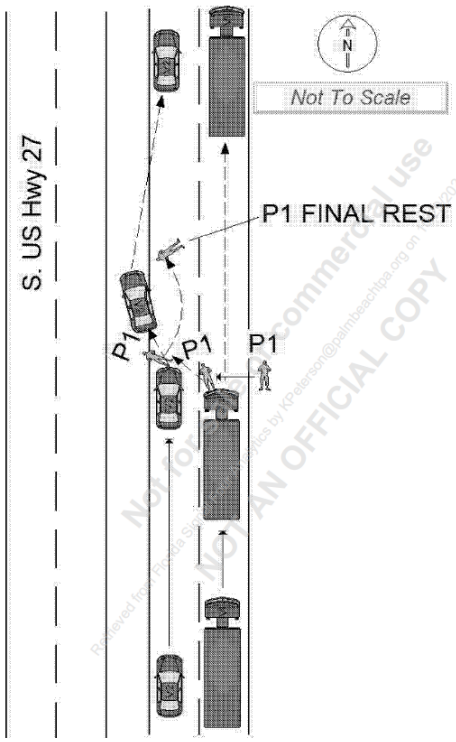
General Information

Crash Location	US-27 (a State road), approximately 0.5 miles south of Mile Marker 50*				
Google Maps	https://goo.gl/maps/wqStCYyaxEwMrnHz9			**Municipality**	Unincorporated
Crash Date	Thursday, September 16, 2021	**Time of Crash**	4:49 AM	**Posted Speed (Major Road)**	65 MPH
Weather	Clear	**Road Surface**	Wet	**Posted Speed (Minor Road)**	-
Lighting	Dark-Not Lighted	**Harmful Event**	Collision with pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	No Contributing Action	M/31	Not Obscured	No	No	No	None
V2 Driver	No Contributing Action	M/35	Not Obscured	No	No	No	None
P1 Pedestrian	Other, Explain in Narrative	M/72	-	-	Unknown	Unknown	Fatal

Crash Diagram



Crash Summary

Vehicle 1 (V1), a truck, was traveling northbound along US-27. Vehicle 2 (V2) was traveling northbound on US-27 behind V1. Pedestrian 1 (P1) was within the outermost northbound travel lane of US-27. V1 struck P1 and redirected P1 into the path of V2. V2 subsequently struck P1 and P1 was declared dead on the scene.

** The crash location was estimated using the provided coordinates and aerial imagery.*

Potential Actions

1. Palm Beach TPA to partner with Palm Beach County Sheriff's Office for roadside assistance programs and education.
2. Palm Beach TPA and/or FDOT to explore TSM&O countermeasures related to Connected Vehicles and real-time notifications to motorists via Dynamic Message Signs (DMS).

PALM BEACH Transportation Planning Agency

Fatal Ped/Bike Crash Analysis Summary

HSMV Crash Report No. 24521344

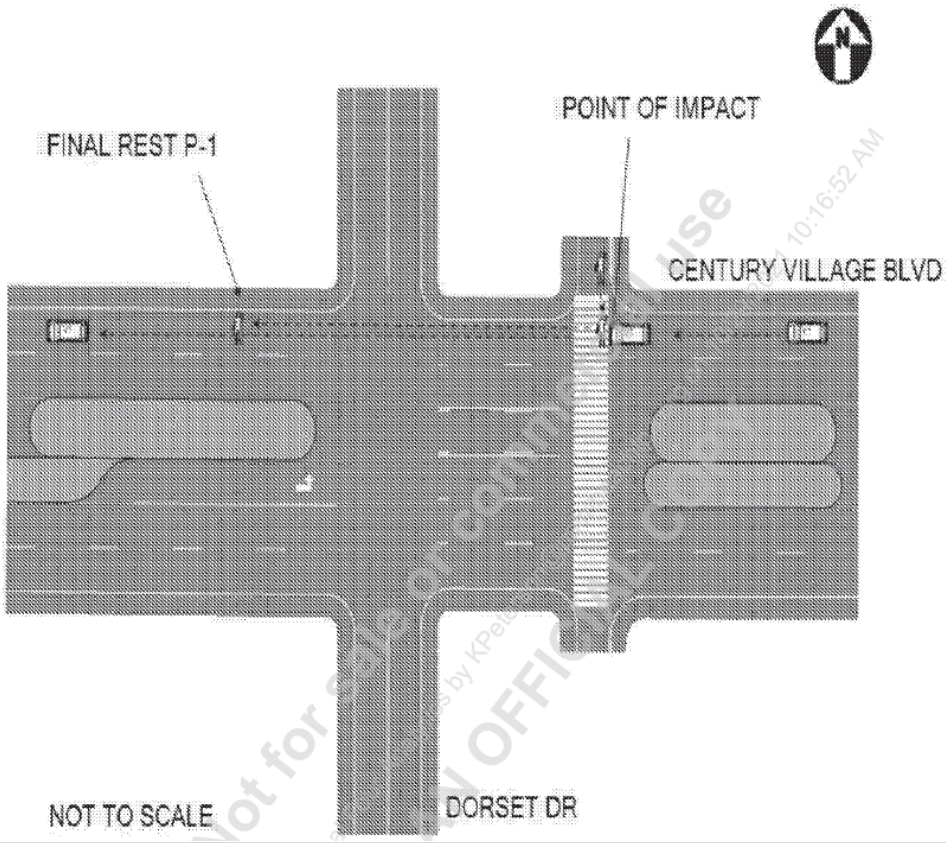
General Information

Crash Location	Intersection of Century Village Boulevard (a private road) and Cornwall Drive/Dorset Drive (a private road)				
Google Maps	https://goo.gl/maps/jW2bnvHZSJpTFtvZ8			**Municipality**	Unincorporated
Crash Date	Thursday, September 23, 2021	**Time of Crash**	8:42 AM	**Posted Speed (Major Road)**	Private Road
Weather	Clear	**Road Surface**	Dry	**Posted Speed (Minor Road)**	Private Road
Lighting	Daylight	**Harmful Event**	Collision with pedestrian		

Individual Information

Person	Contributing Action	Sex/Age	Vision	Distracted	Drugs	Alcohol	Severity
V1 Driver	Failed to yield right-of-way	M/93	Not Obscured	No	No	No	None
P2 Pedestrian	No Improper Action	F/59	-	-	No	No	Fatal

Crash Diagram



Crash Summary

Vehicle 1 (V1) was traveling westbound along Century Village Boulevard, approaching the intersection of Cornwall Drive/Dorset Drive. Pedestrian 2 (P2) was traveling south, crossing Century Village Boulevard in the crosswalk on the east side of the intersection. V1 struck P2. P2 was declared dead on the scene.

Potential Actions

1. Palm Beach TPA to coordinate with Century Village to identify opportunities for neighborhood-wide speed reduction and traffic calming measures including an evaluation of existing crosswalks.
2. Consistent with the Vision Zero Action Plan's Cultural Related Action 5a), Palm Beach TPA to coordinate with local community organizations to distribute content from Safe Mobility for Life to homeowner's associations in the area.