



## TPA GOVERNING BOARD MEETING AGENDA

DATE: **Thursday, June 16, 2022**  
TIME: **9:00 a.m.**  
PLACE: **301 Datura Street, West Palm Beach, FL 33401**

Attendees may not enter the TPA workplace if in the previous 5 days, they have tested positive for COVID-19, exhibited symptoms of COVID-19, or been in close contact with someone with COVID-19 and are unvaccinated.

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 5.

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

- Via Zoom app using Webinar ID: 811-5449-5506 and Password: 162741
- Via web browser at [PalmBeachTPA.org/16JUN2022](https://PalmBeachTPA.org/16JUN2022)
- Via phone at 1-646-558-8656 using the above Webinar ID and Password
- View a live simulcast at [PalmBeachTPA.org/LIVE](https://PalmBeachTPA.org/LIVE)

Please call 561-725-0800 or e-mail [info@PalmBeachTPA.org](mailto:info@PalmBeachTPA.org) for assistance joining the virtual meeting.

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### 1. REGULAR ITEMS

- A. Call to Order and Roll Call
- B. Invocation and Pledge of Allegiance
- C. Modifications to the Agenda
- D. General Public Comments

Members of the public are invited to offer general comments unrelated to agenda items at this time. Public comments related to agenda items will be heard following staff presentation of the item. Comments may be submitted in the following ways:

- A written comment may be submitted at [PalmBeachTPA.org/comment](https://PalmBeachTPA.org/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 and/or written comment may be provided by an in-person attendee submitting a comment card available at the welcome table.

Note that the Chair may limit comments to 3 minutes or less depending on meeting attendance.

E. Special Presentations

1. Dump the Pump Day Proclamation

The TPA Chair will present the attached Dump the Pump Day Proclamation recognizing June 17, 2022.

2. Executive Director Recruitment Update

Slavin Management Consultants will provide an update on the status of the Executive Director job search. There is no backup for this item.

F. Comments from the Chair and Member Comments

G. Interim Executive Director's Report

H. MOTION TO APPROVE Consent Agenda Items

1. Meeting Minutes for May 19, 2022

2. Receive and file TPA Executive Committee Meeting Minutes for May 3, 2022

3. Appointments to TPA Advisory Committees through June 2025

a. Yash Nagal as Alternate for Palm Tran on the Technical Advisory Committee (TAC). A summary of qualifications is attached.

b. Bruce Guyton as Representative and Chris Walker as Alternate for Palm Tran on the Vision Zero Advisory Committee (VZAC). A summary of qualifications is attached.

4. Adoption of the attached resolution approving the TPA Financial Policies that codify the requirements, expectations, and reporting to be delivered by TPA staff and ensure compliance with all federal and state regulations for financial controls. The draft policies are attached.

5. Adoption of the attached resolution amending the TPA Operating Procedures with modifications to the Executive Committee's duties. The draft procedures are attached.

6. Approval of TPA Interim Executive Director Timesheets for the period of May 7 to June 3, 2022.

7. Adoption of the attached resolution to approve the TPA to reimburse travel expenses for up to twelve (12) participants to attend a peer exchange on September 29-30 in Austin, TX to learn about their enhanced transit plans. The draft agenda is attached.

**2. ACTION ITEMS**

A. MOTION TO ADOPT a Resolution Approving Amendment #4 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 attached amendment request includes:

- Modifying an existing project – I-95 at Belvedere Rd (FM# 444121-1)
- Adding a new project – I-95 at PGA Blvd (FM# 449280-1)

TAC: Recommended adoption 20-3 with dissent from West Palm Beach Representatives and the Boynton Beach Representative due to concerns with the lack of coordination between the Florida Department of Transportation (FDOT) and the City of West Palm Beach on the I-95 at Belvedere Rd project.

CAC: Recommended adoption unanimously

VZAC: Recommended adoption 13-1 with dissention from the West Palm Beach Representative due to the lack of coordination on the I-95 at Belvedere Rd project.

***A roll call vote is required.***

B. MOTION TO ADOPT a Resolution Approving the TPA's FY 23-27 TIP

The TIP is the five-year funding program for transportation projects in Palm Beach County. This program was developed in collaboration with FDOT and various local agencies and includes transportation projects funded by federal, state, and local sources for all modes of transportation. The program reflects revenue expectations for the next five fiscal years and shows phases and funding sources by year for each project. The full draft FY 23-27 TIP document and appendices can be viewed at [PalmBeachTPA.org/TIP](http://PalmBeachTPA.org/TIP). The executive summary is attached.

TAC: Recommended adoption 20-2 with dissention from West Palm Beach Representatives due to inclusion of funding for the State Road (SR) 7 extension.

CAC: Recommended adoption unanimously

VZAC: Recommended adoption 12-2 with dissention from the West Palm Beach Representative due to inclusion of funding for the SR 7 extension, and the Disabled Community Representative due to concerns with shared use paths.

***A roll call vote is required.***

**3. INFORMATION ITEMS**

A. Florida Rail Safety Initiatives

FDOT staff will provide an overview of Florida Rail Safety Initiatives to identify and mitigate rail safety challenges, including implementation of engineering, enforcement, education, and emergency response strategies. For more information, visit: [FDOT.gov/Rail](http://FDOT.gov/Rail). The draft presentation is attached.

B. Environmental Research Paper

During the TPA Citizen's Advisory Committee (CAC) meeting on June 1, 2022, the CAC made a motion to formally provide the TPA Board with the attached Environmental Research Paper developed by CAC member, Michael Fitzpatrick, which outlines research on environmental factors in transportation. The committee also requested TPA staff or TAC members to review the report and provide a summary of how it fits into the TPA's current mission and policies; and to review additional opportunities to fit initiatives identified in the paper into the current mission and policies.

The motion passed 10-6 with representatives from Palm Beach Gardens, Palm Beach County Districts 1 and 4, Royal Palm Beach, Wellington, and the General Public dissenting.

CAC Member, Michael Fitzpatrick, will present this item on behalf of the CAC and is requesting Board direction on next steps.

C. TPA Operating Procedures Review

The TPA Board directed staff to provide an overview of TPA advisory committees, including committee charge, membership, and process for adding committee member items to a committee agenda and to a TPA Board agenda for review and action. The current TPA Operating Procedures are available at [PalmBeachTPA.org/OperatingProcedures](http://PalmBeachTPA.org/OperatingProcedures). The draft presentation is attached.

D. Partner Agency Updates

Agency staff from Palm Tran, SFRTA/Tri-Rail, FDOT and/or Palm Beach County Engineering may provide brief updates on items relevant to the TPA.

**4. ADMINISTRATIVE ITEMS**

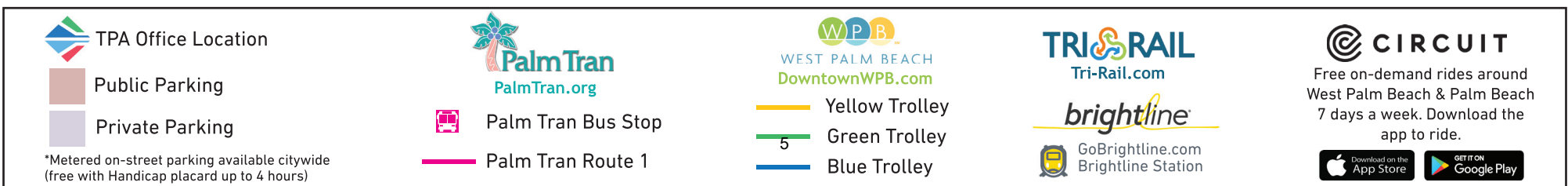
A. Routine TPA Reports

1. Public Involvement Activity Reports – May 2022
2. FDOT Scheduling Report – June 2022
3. Quarterly Fiscal Report
4. Palm Beach TPA/FDOT Joint Certification Statement for Calendar Year 2021

B. Next Meeting – **July 21, 2022**

C. Adjournment





**CHAIR**

**Robert S. Weinroth, Mayor**  
Palm Beach County – District 4

**Steve B. Wilson, Mayor**  
City of Belle Glade  
*Alternate:* Michael C. Martin, Commissioner

**Yvette Drucker, Council Member**  
City of Boca Raton

**Andy Thomson, Council Member**  
City of Boca Raton

*Boca Raton Alternates:*  
Scott Singer, Mayor  
Andrea Levine O'Rourke, Deputy Mayor  
Monica Mayotte, Council Member

**Angela Cruz, Vice Mayor**  
City of Boynton Beach  
*Alternate:* Woodrow L. Hay, Commissioner

**Shelly Petrolia, Mayor**  
City of Delray Beach  
*Alternate:* Juli Casale, Deputy Vice-Mayor

**Joel Flores, Mayor**  
City of Greenacres  
*Alternate:* Paula Bousquet, Councilwoman

**Jim Kuretski, Mayor**  
Town of Jupiter  
*Alternate:* Ron Delaney, Vice Mayor

**Reinaldo Diaz, Commissioner**  
City of Lake Worth Beach  
*Alternate:* Christopher McVoy, Vice Mayor

**Joni Brinkman, Mayor Pro Tem**  
Village of Palm Springs  
*Alternate:* Doug Gunther, Vice Mayor

**Katherine Waldron, Commissioner**  
Port of Palm Beach

**VICE CHAIR**

**Chelsea S. Reed, Mayor**  
City of Palm Beach Gardens  
*Alternate:* Marcie Tinsley, Councilmember

**Melissa McKinlay, Commissioner**  
Palm Beach County – District 6

**Maria Marino, Commissioner**  
Palm Beach County – District 1

**Maria Sachs, Commissioner**  
Palm Beach County – District 5

**Gregg K. Weiss, Vice Mayor**  
Palm Beach County – District 2

*Palm Beach County Alternates:*  
Mack Bernard, Commissioner  
Dave Kerner, Commissioner

**Shirley Lanier, Councilwoman**  
City of Riviera Beach  
*Alternate:* Tradrick McCoy, Councilman

**Fred Pinto, Mayor**  
Village of Royal Palm Beach  
*Alternate:* Jeff Hmara, Councilman

**Michael J. Napoleone, Councilman**  
Village of Wellington  
*Alternate:* John T. McGovern, Vice Mayor

**Christy Fox, Commissioner**  
City of West Palm Beach

**Joseph A. Peduzzi, Commissioner**  
City of West Palm Beach

*West Palm Beach Alternates:*  
Christina Lambert, Commissioner  
Shalonda Warren, Commissioner

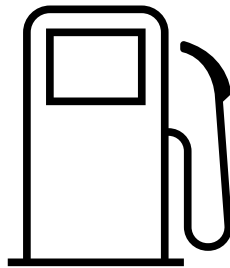
**Gerry O'Reilly, District 4 Secretary**  
Florida Department of Transportation  
Non-Voting Advisory Member

**NOTICE**

This is a meeting of the Palm Beach MPO doing business as the Palm Beach Transportation Planning Agency.

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 send email to [Info@PalmBeachTPA.org](mailto:Info@PalmBeachTPA.org) at least five business days in advance. Hearing impaired individuals are requested to telephone the Florida Relay System at #711.



## DECLARING JUNE 17, 2022 AS DUMP THE PUMP DAY

**WHEREAS**, public transportation is critical in transporting essential workers reducing traffic congestion and air pollution, and

**WHEREAS**, the Palm Beach Transportation Planning Agency (TPA)'s vision is a safe, efficient, and connected multimodal transportation system,

**WHEREAS**, the Palm Beach TPA encourages transit ridership as a safe, equitable, and sustainable mode of transportation, and

**WHEREAS**, the American Public Transportation Association brings together hundreds of transit providers each year to raise awareness and encourage everyone to Dump the Pump, and

**WHEREAS**, Palm Tran, working closely with the Palm Beach TPA, provides 21,000 rides daily and is encouraging everyone to use the promo code "value" in their Paradise Pass app on June 17th to ride for free, and

**WHEREAS**, the South Florida Regional Transportation Authority is promoting Tri-Rail with its "\$5 Gets You There" marketing campaign, to promote the benefits of riding public transportation as cost of food, rent and gas continue to rise.

**NOW, THEREFORE, BE IT PROCLAIMED BY THE GOVERNING BOARD OF THE PALM BEACH TPA**, assembled in regular session this 16th day of June 2022, that June 17, 2022, is hereby proclaimed:

*Dump the Pump Day*

**BE IT FURTHER PROCLAIMED BY THE GOVERNING BOARD OF THE PALM BEACH TRANSPORTATION PLANNING AGENCY** that this proclamation is duly sealed, ribboned and executed by the Chair and Vice Chair of this Board.

Attest:

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**Valerie Neilson, AICP**  
**TPA Interim Executive Director**

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**Mayor Robert S. Weinroth, TPA Chair**

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**Mayor Chelsea S. Reed, TPA Vice Chair**



**OFFICIAL MEETING MINUTES OF THE  
PALM BEACH TRANSPORTATION PLANNING AGENCY (TPA)  
GOVERNING BOARD**

**May 19, 2022**

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

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*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  
[www.PalmBeachTPA.org/Board](http://www.PalmBeachTPA.org/Board)*

**1. REGULAR ITEMS**

**1.A. Call to Order and Roll Call**

CHAIR WEINROTH called the meeting to order at 9:00 a.m.

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

Member	Attendance	Member	Attendance	Member	Attendance
Wilson	P	Diaz	P	Lanier	P
Drucker	P	Brinkman	P	Pinto	P
Thomson	P	Waldron	A	Napoleone	P
Cruz	A	McKinlay	A	Fox	P
Petrolia	A	Marino	A	Peduzzi	P
Flores	A	Sachs	A	Reed	P
Kuretski	A	Weiss	P	Weinroth	P

P = Present A = Absent

**1.B. Invocation and Pledge of Allegiance**

Mayor Wilson led the invocation and pledge.

**1.C. Modifications to the Agenda**

The Recording Secretary stated the following members requested to join the meeting remotely: Deputy Vice-Mayor Casale due to COVID-19 exposure, Commissioner Bousquet due to COVID-19 concerns and recent medical procedure, and Commissioner Marino as she was needed at home as a caretaker.

There were no objections to the virtual participation and the members was permitted to join the meeting.

**MOTION to Approve Modifications to the Agenda made by Vice Mayor Weiss, seconded by Council Member Thomson, and carried unanimously 13-0 as depicted in the table below.**

Member	Vote	Member	Vote	Member	Vote
Wilson	Y	Diaz	Y	Lanier	Y
Drucker	Y	Brinkman	Y	Pinto	Y
Thomson	Y	Waldron	A	Napoleone	Y
Cruz	A	McKinlay	A	Fox	Y
Petrolia	A	Marino	A	Peduzzi	Y
Flores	A	Sachs	A	Reed	Y
Kuretski	A	Weiss	Y	Weinroth	Y

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

#### 1.D. General Public Comments

There were no general public comments received.

#### 1.E. Comments from the Chair and Member Comments

CHAIR WEINROTH noted the State's decision to waive gas taxes in October and recent discussions for the County to follow suit. He noted the County Commission has not taken a position on the matter and noted his own position of not supporting this as it impacts Palm Tran and infrastructure maintenance. He also brought attention to Action Item 2.C and the discussion that would be had about a future transportation surtax.

MAYOR PINTO highlighted his recent attendance at the Florida Metropolitan Planning Organization Advisory Council (MPOAC) meeting on April 28. He noted workshop planning is scheduled for July and the Legislative Policy Positions discussed during the meeting would be reviewed in Action Item 2.B.

#### 1.F. Interim Executive Director's Report

VALERIE NEILSON, TPA Interim Executive Director, reviewed the Report that can be viewed at [PalmBeachTPA.org/Board](https://PalmBeachTPA.org/Board).

There were no public comments on this item.

CHAIR WEINROTH commented on the County's Economic Summit that will be focused on housing and transportation. He stated Ms. Neilson would be a moderator on transportation and he would be a panelist. He encouraged members to attend.

Commissioner Dave Kerner joined the meeting in-person.

#### 1.G. **APPROVED:** Consent Agenda Items

1. Meeting Minutes for April 21, 2022
2. Receive and file TPA Executive Committee Meeting Minutes for April 12, 2022
3. Creation of a new Technical Advisory Committee (TAC) Member for the City of Westlake.
4. Appointments to TPA Advisory Committees through May 2025
  - a. John O'Connor as Representative and Greg Langowski as Alternate for the City of Westlake on the TAC.
  - b. Caryn Gardner-Young as Alternate for the City of Greenacres on the TAC.
  - c. Sammie Brown as a Citizen's Advisory Committee (CAC) Member as nominated by Riviera Beach Councilwoman Lanier.
  - d. Varisa Dass as a CAC Member as nominated by Port of Palm Beach Commissioner Waldron.
  - e. Christian Santa-Gonzalez as Representative and Kyle Burg as Alternate for the Village of Wellington on the Vision Zero Advisory Committee (VZAC).

5. Approval of TPA Agreement 2022-01 for a two-year extension of Legal Services with Weiss, Serota, Helfman, Cole & Bierman, P.L. The agreement will terminate June 30, 2024.
6. Adoption of a resolution to approve the TPA to reimburse travel expenses for up to ten (10) participants to attend a peer exchange on September 29-30 in Austin, TX to learn about their enhanced transit plans.
7. Adoption of a resolution amending the TPA Operating Procedures with minor modifications to each committee's charge and the process for which committee recommendations are brought before the Board. These changes were unanimously approved by the Executive Committee.
8. Approval of TPA Interim Executive Director Timesheets for the period of March 12 to May 6, 2022.

There were no public comments on this item.

VICE CHAIR REED expressed her enthusiasm for the City of Westlake being added to the TAC.

**MOTION to Approve the Consent Agenda made by Mayor Wilson, seconded by Vice Chair Reed, and carried unanimously 17-0 as depicted in the table below.**

Member	Vote	Member	Vote	Member	Vote
Wilson	Y	Diaz	Y	Lanier	Y
Drucker	Y	Brinkman	Y	Pinto	Y
Thomson	Y	Waldron	A	Napoleone	Y
Cruz	A	Kerner (Alt)	Y	Fox	Y
Casale (Alt)	Y	Marino	Y	Peduzzi	Y
Bousquet (Alt)	Y	Sachs	A	Reed	Y
Kuretski	A	Weiss	Y	Weinroth	Y

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

## 2. ACTION ITEMS

### 2.A. **ADOPTED: a Resolution Approving the Fiscal Year (FY) 2023-2024 Unified Planning Work Program (UPWP)**

MATTHEW KOMMA, TPA Chief Financial Officer, provided a PowerPoint presentation that can be viewed at [PalmBeachTPA.org/Board](http://PalmBeachTPA.org/Board). Matthew reviewed the final UPWP, which is the 2-year business plan and budget for the agency covering a period of July 1, 2022 to June 30, 2024. The UPWP serves as the TPA's application for federal planning funds and includes a description of the planning work, deliverables, timeframes, and source and amount of funding requested. Matthew reviewed key updates made between the previously presented draft document and final version.

There were no public comments on this item.

CHAIR WEINROTH requested clarification on how the funding for the Bipartisan Infrastructure funding bill would be reflected in the UPWP.

MAYOR PINTO confirmed the item before the Board was the budget for planning purposes only.

**MOTION to Adopt a Resolution approving the FY 2023-2024 UPWP made by Councilman Napoleone, seconded by Mayor Pinto, and carried 14-3 as depicted in the table below.**

**Vice Mayor Weiss, and Commissioners Fox and Peduzzi dissented due to the potential inclusion of the State Road 7 extension project.**

Member	Vote	Member	Vote	Member	Vote
Wilson	Y	Diaz	Y	Lanier	Y
Drucker	Y	Brinkman	Y	Pinto	Y
Thomson	Y	Waldron	A	Napoleone	Y
Cruz	A	Kerner (Alt)	Y	Fox	N
Casale (Alt)	Y	Marino	Y	Peduzzi	N
Bousquet (Alt)	Y	Sachs	A	Reed	Y
Kuretski	A	Weiss	N	Weinroth	Y

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

## **2.B. ADOPTED: a Resolution Endorsing the 2022 Florida MPOAC Legislative Priorities and Policy Positions**

ANDREW UHLIR, TPA Deputy Director of Program Development, provided a PowerPoint presentation that can be viewed at [PalmBeachTPA.org/Board](https://PalmBeachTPA.org/Board). Andrew stated the TPA's FY 22 Strategic Plan Action 3.D directs staff to advocate for TPA adopted legislative and policy positions. Andrew provided background of the process that occurred previously and noted the Executive Committee unanimously recommended participating in the MPOAC process rather than adopting its own positions until there are specific issues unique to the TPA to advance at the state and federal levels.

There were no public comments on this item.

CHAIR WEINROTH affirmed the Executive Committee's position that the TPA participate in the MPOAC process. He also noted Mayor Pinto was the TPA's representative to participate in the MPOAC meetings and advocate for matters that are in the TPA's best interest.

### **MOTION to Adopt a Resolution endorsing the 2022 Florida MPOAC Legislative Priorities and Policy Positions made by Mayor Pinto, seconded by Mayor Wilson, and carried unanimously 17-0 as depicted in the table below.**

Member	Vote	Member	Vote	Member	Vote
Wilson	Y	Diaz	Y	Lanier	Y
Drucker	Y	Brinkman	Y	Pinto	Y
Thomson	Y	Waldron	A	Napoleone	Y
Cruz	A	Kerner (Alt)	Y	Fox	Y
Casale (Alt)	Y	Marino	Y	Peduzzi	Y
Bousquet (Alt)	Y	Sachs	A	Reed	Y
Kuretski	A	Weiss	Y	Weinroth	Y

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

## **2.C. POSTPONED: a Motion to Approve TPA Staff to draft a Resolution**

VALERIE NEILSON provided a PowerPoint presentation that can be viewed at [PalmBeachTPA.org/Board](https://PalmBeachTPA.org/Board). Valerie stated during the TAC meeting on May 4, 2022, the committee made a motion requesting the TPA Board make a resolution to the Palm Beach County Board of County Commissioners (BCC) to authorize a countywide referendum to create a dedicated source of operating funding to support the 561 Plan with specific emphasis on the northern extension of Tri-Rail (FM# 4170317). Valerie provided background on the project and highlighted the proceedings of the TPA Board Subcommittee that held meetings between 2017 and 2018 to discuss this matter. Valerie provided a current project status, updates on the TPA's transportation desires, and mobility vision next steps.

There were no public comments on this item.

Member discussion ensued on the project's current progress and steps taken to date, concerns with delays on the project due to the lack of a dedicated funding source, pending BCC referendums that will be proposed soon for the November 2022 ballot, need for public education and engagement on the



matter, transit goals for the County, feedback being solicited from the 39 municipalities on this matter, impacts to existing projects, and potential next steps.

Vice Mayor Angela Cruz joined the meeting in-person.

**MOTION to Postpone the Motion to Approve TPA Staff to draft a Resolution based on the TAC's request for FM# 4170317 until after the November 2022 election cycle with the item to be brought back at any time at the direction of the Chair or TPA Executive Director. Motion made by Commissioner Kerner, seconded by Vice Chair Reed, and carried unanimously 18-0 as depicted in the table below.**

Member	Vote	Member	Vote	Member	Vote
Wilson	Y	Diaz	Y	Lanier	Y
Drucker	Y	Brinkman	Y	Pinto	Y
Thomson	Y	Waldron	A	Napoleone	Y
Cruz	Y	Kerner (Alt)	Y	Fox	Y
Casale (Alt)	Y	Marino	Y	Peduzzi	Y
Bousquet (Alt)	Y	Sachs	A	Reed	Y
Kuretski	A	Weiss	Y	Weinroth	Y

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

Deputy Vice-Mayor Juli Casale and Commissioner Dave Kerner left the meeting.

### 3. INFORMATION ITEMS

#### 3.A. **DISCUSSED:** Draft FY 23-27 Transportation Improvement Plan (TIP)

JASON PRICE, TPA TIP Coordinator, provided a PowerPoint presentation that can be viewed at [PalmBeachTPA.org/Board](https://PalmBeachTPA.org/Board). Jason reviewed the TIP, which is the TPA's five-year funding program for transportation projects in Palm Beach County. Jason noted this was developed in collaboration with the Florida Department of Transportation (FDOT) and various local agencies and includes transportation projects funded by federal, state, and local sources for all modes of transportation. The program reflects revenue expectations for the next five fiscal years and shows phases and funding sources by year for each project. The full TIP document and appendices can be viewed at [PalmBeachTPA.org/TIP](https://PalmBeachTPA.org/TIP).

There were no public comments on this item.

Councilwoman Shirley Lanier left the meeting.

VICE CHAIR REED highlighted the changes on the Prosperity Farms Road project that will now be inclusive of bicycle safety improvements.

VALERIE NEILSON encouraged Board members to review and utilize the TPA's interactive comment map and to take a brochure in the reception area that highlights all the TPA resources available.

#### 3.B. **DISCUSSED:** Palm Beach County Traffic Signalization Technology

MOTASEM AL-TURK, RASEM AWWAD and NICHOLAS JUNQUEIRA, representatives from Palm Beach County Engineering and FDOT, provided a PowerPoint presentation that can be viewed at [PalmBeachTPA.org/Board](https://PalmBeachTPA.org/Board). The presentation highlighted the traffic signal technology currently being utilized, and the technology soon to be implemented and explored to improve transportation efficiency and safety. They noted concerns with the roadway network can be reported at [discover.pbcgov.org/engineering/Pages/Get-It-Fixed.aspx](https://discover.pbcgov.org/engineering/Pages/Get-It-Fixed.aspx).

There were no public comments on this item.

Council Member Andy Thomson and Mayor Pro Tem Joni Brinkman left the meeting.



Member discussion ensued on the County's signal prioritization for Palm Tran buses, bridge opening and railroad crossing coordination, the traffic services vendor, details on any surveys conducted on best practices, signalization concerns at several intersections and how to report issues.

Councilman Michael Napoleone left the meeting.

### **3.C. Partner Agency Updates**

STEVEN ABRAMS, SFRTA/Tri-Rail Executive Director, provided comments on the traffic signalization presentation and noted an increase in Tri-Rail ridership.

TODD BONLARRON, Assistant County Administrator, provided an update on behalf of Palm Tran on their ridership data, recognition for their Hispanic Heritage Month bus wrap, an update on their Paradise Pass initiative, and thanked partner agencies for their continued collaboration.

## **4. ADMINISTRATIVE ITEMS**

### **4.A.1. Routine TPA Reports – Public Involvement Activity Report – April 2022**

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

### **4.A.2. Routine TPA Reports – FDOT Scheduling Report – May 2022**

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

### **4.B. Next Meeting – June 16, 2022**

### **4.C. Adjournment**

There being no further business, the Chair declared the meeting adjourned at 11:10 a.m.

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This signature is to attest that the undersigned is the Chair, or a designated nominee, of the TPA Governing Board and that the information provided herein is the true and correct Minutes for the May 19, 2022, meeting of the Board, dated this 16th day of June 2022.

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Chair Robert S. Weinroth  
Palm Beach County Mayor

**EXHIBIT A**  
**Transportation Planning Agency Governing Board**  
**Attendance Record**

<b>Representative Alternate(s) Local Government</b>	<b>Jun '21</b>	<b>Jul '21</b>	<b>Aug '21</b>	<b>Sep '21</b>	<b>Oct '21</b>	<b>Nov '21</b>	<b>Dec '21</b>	<b>Jan '22</b>	<b>Feb '22</b>	<b>Mar '22</b>	<b>Apr '22</b>	<b>May '22</b>
Robert Weinroth, Mayor – CHAIR Palm Beach County	P	P	NO MEETING HELD – SCHEDULED BREAK	MEETING CANCELLED	P	P	P	NO MEETING HELD – SCHEDULED BREAK	P	P	P	P
Chelsea Reed, Mayor – VICE CHAIR Marcie Tinsley, Councilmember City of Palm Beach Gardens	ALT	P			P	P	P		P	P	P	P
Steve B. Wilson, Mayor City of Belle Glade	P	P			E	P	E		P	E	P	P
Yvette Drucker, Councilmember Scott Singer, Mayor Monica Mayotte, Councilmember City of Boca Raton	ALT	E			P	P	E		P	ALT	ALT	P
Andy Thomson, Council Member Andrea O'Rourke, Councilmember City of Boca Raton	P	P			P	P	P		P	P	ALT	P
Angela Cruz, Vice Mayor City of Boynton Beach	P	P			P	P	A		P	P	E	P
Shelly Petrolia, Mayor Juli Casale, Deputy Vice-Mayor City of Delray Beach	ALT	P			P	P	A		P	E	P	ALT
Joel Flores, Mayor Paula Bousquet, Commissioner City of Greenacres	P	A			P	P	P		P	E	P	ALT
Jim Kuretski, Mayor Cameron May, Vice Mayor Town of Jupiter	P	P			E	P	E		E	ALT	**P	E
Reinaldo Diaz, Commissioner City of Lake Worth Beach	P	P			P	P	A		P	P	**P	P
Joni Brinkman, Mayor Pro Tem Doug Gunther, Vice Mayor Village of Palm Springs	P	P			P	P	P		P	P	P	P
Katherine Waldron, Commissioner Port of Palm Beach	P	P			E	P	P		P	P	P	A
Melissa McKinlay, Commissioner Mack Bernard, Commissioner Dave Kerner, Commissioner Palm Beach County	P	E			P	ALT	P		P	P	P	ALT
Maria Marino, Commissioner Palm Beach County	P	P			P	P	P		P	P	P	P
Maria Sachs, Commissioner Mack Bernard, Commissioner Dave Kerner, Commissioner Palm Beach County	P	P			ALT	P	P		ALT	P	P	E
Gregg Weiss, Vice Mayor Mack Bernard, Commissioner Palm Beach County	P	ALT			P	P	P		P	P	P	P

\*\* New Appointment

P - Representative Present

ALT- Alternate Present

E - Excused

A - Absent

**EXHIBIT A (cont'd)**

<b>Representative Alternate(s) Local Government</b>	<b>Jun '21</b>	<b>Jul '21</b>	<b>Aug '21</b>	<b>Sep '21</b>	<b>Oct '21</b>	<b>Nov '21</b>	<b>Dec '21</b>	<b>Jan '22</b>	<b>Feb '22</b>	<b>Mar '22</b>	<b>Apr '22</b>	<b>May '22</b>
Shirley Lanier, Councilwoman City of Riviera Beach	E	P	NO MEETING HELD – SCHEDULED BREAK	MEETING CANCELLED	A	P	A	NO MEETING HELD – SCHEDULED BREAK	P	A	P	P
Fred Pinto, Mayor Village of Royal Palm Beach	P	P			P	P	P		E	P	P	P
Michael Napoleone, Councilman Village of Wellington	P	P			P	P	P		P	P	P	P
Christy Fox, Commissioner City of West Palm Beach	ALT	P			P	P	P		P	P	**P	P
Joseph Peduzzi, Commissioner City of West Palm Beach	A	P			A	P	A		P	P	P	P

\*\*\* New Appointment

P - Representative Present

ALT- Alternate Present

E - Excused

A - Absent

**OTHERS PRESENT**

Wanda Cordoba  
 Andrea McCue  
 Commissioner Christopher McVoy  
 Joel Engelhardt  
 Michael Morrow  
 Thuha Nguyen  
 Nancy Condemi  
 Abygale Hines  
 Danna Ackerman White  
 Shannel Gordon  
 Thuc Le  
 Christine Fasiska  
 John Krane  
 Marsha Taylor  
 John Scarlatos  
 Victoria Williams  
 Paul Gavin  
 Osmara Maria Fernandez  
 Todd Bonlarron  
 Motasem Al-Turk  
 Rasem Awwad  
 Nicholas Junqueira  
 Richard Radcliffe  
 Khurshid Mohyuddin  
 Conor Campobasso  
 Valentina Facuse  
 Alaura Hart  
 Matthew Komma  
 Matthew Masa  
 Valerie Neilson

**REPRESENTING**

Calvin, Giordano & Associates  
 City of Greenacres  
 City of Lake Worth Beach  
 City of Palm Beach Gardens  
 City of Palm Beach Gardens  
 City of Westlake  
 Colliers Engineering & Design  
 Colliers Engineering & Design  
 Commissioner Dave Kerner  
 Councilwoman Shirley Lanier  
 FDOT  
 FDOT District 4  
 FDOT District 4  
 FDOT District 4  
 FDOT - SCALAR  
 Florida's Turnpike Enterprise  
 General Public  
 General Public  
 Palm Beach County Administration  
 Palm Beach County Engineering  
 Palm Beach County Engineering  
 Palm Beach County Engineering/FDOT  
 Palm Beach County League of Cities  
 Palm Beach County Planning  
 Palm Beach TPA  
 Palm Beach TPA  
 Palm Beach TPA  
 Palm Beach TPA  
 Palm Beach TPA  
 Palm Beach TPA

**EXHIBIT A (cont'd)**

**OTHERS PRESENT**

Margarita Pierce  
Jason Price  
Cassidy Sparks  
Andrew Uhler  
Amanda Williams  
Paul Gougelman  
Levi McCullom  
DeBorah Posey Blocker  
Steven Abrams  
Loraine Cargill  
Vicki Gatanis  
Angel Gardner

**REPRESENTING**

Palm Beach TPA  
Palm Beach TPA  
Palm Beach TPA  
Palm Beach TPA  
Palm Beach TPA  
Palm Beach TPA – Weiss Serota et al.  
Palm Tran  
Palm Tran  
SFRTA/Tri-Rail  
SFRTA/Tri-Rail  
SFRTA/Tri-Rail  
The Valerin Group



## **TPA EXECUTIVE COMMITTEE MEETING AGENDA**

DATE: **Tuesday, May 3, 2022**  
TIME: **3:00 p.m.**  
PLACE: **301 Datura Street | West Palm Beach, FL 33401**

Attendees may not enter the TPA workplace if in the previous 5 days, they have tested positive for COVID-19, exhibited symptoms of COVID-19, or been in close contact with someone with COVID-19 and are unvaccinated.

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 3.

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

- Via Zoom app using Webinar ID: 850-6733-8953 and Password: 057153
- Via web browser at [PalmBeachTPA.org/03MAY2022](https://PalmBeachTPA.org/03MAY2022)
- Via phone at 1-646-558-8656 using the above Webinar ID and Password
- View a live simulcast at [PalmBeachTPA.org/LIVE](https://PalmBeachTPA.org/LIVE)

Please call 561-725-0800 or e-mail [info@PalmBeachTPA.org](mailto:info@PalmBeachTPA.org) for assistance joining the virtual meeting.

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### **1. REGULAR ITEMS**

- A. Call to Order and Roll Call
- B. Modifications to the Agenda
- C. Review the Committee's Charge

Pursuant to TPA Operating Procedures Section 2.2.F.2., the Executive Committee shall meet as necessary to review and recommend content related to other TPA initiatives (e.g. the 561 Mobility Plan, the Vision Zero Action Plan, transportation surtax funding strategies, and other plans and strategies) for consideration by the Governing Board.

- D. General Public Comments

Members of the public are invited to offer comments or questions as follows:

- A written comment may be submitted at [PalmBeachTPA.org/Exec-Comment](https://PalmBeachTPA.org/Exec-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.

Note that the Chair may limit comments to 3 minutes or less depending on meeting attendance.

- E. Comments from the Chair and Member Comments

- F. Interim Executive Director's Report
- G. MOTION TO APPROVE Meeting Minutes from April 12, 2022

## **2. ACTION ITEMS**

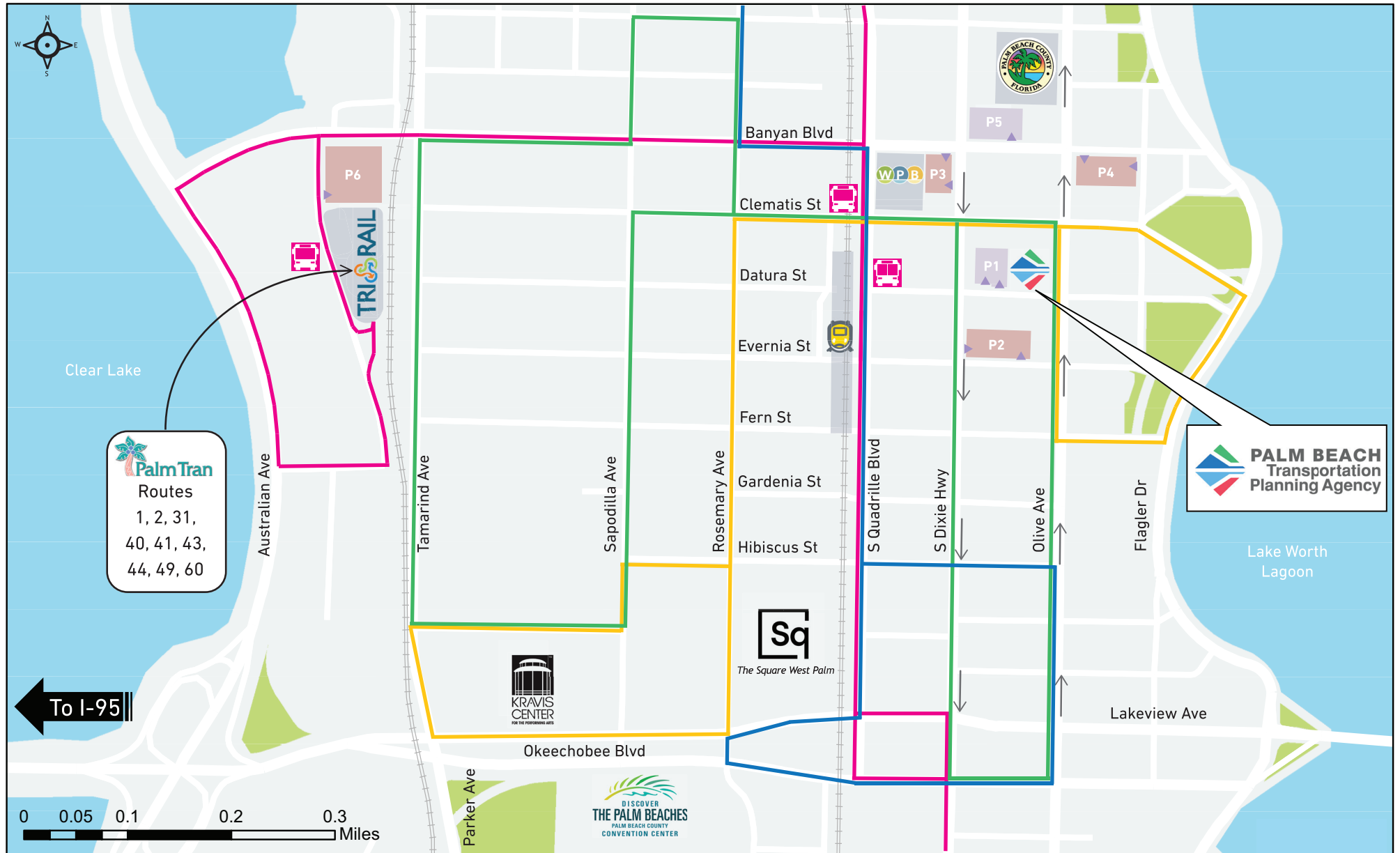
- A. MOTION TO RECOMMEND APPROVAL of TPA Legislative and Policy Positions  
TPA staff will present the attached 2022 Florida Metropolitan Planning Organization Advisory Council (MPOAC) adopted Legislative Priorities and Policy Positions and the attached draft TPA Legislative Priorities and Policy Positions. Staff is seeking direction on whether the TPA should annually adopt its own or endorse the MPOAC's legislative priorities and policy positions.
- B. MOTION TO RECOMMEND APPROVAL of an Amendment to the TPA Operating Procedures  
The TPA's Fiscal Year 2022 Strategic Plan Action 6.B directed staff to modify the TPA Committees to support TPA Initiatives. TPA staff will present an overview of the structure and role of the agency's advisory committees to solicit feedback. TPA Operating Procedures Sections 3-5 with draft track changes are attached.

## **3. INFORMATION ITEMS**

- A. Executive Director Recruitment Update  
Slavin Management Consultants will provide an update on the status of the Executive Director job search. There is no backup for this item.

## **4. ADMINISTRATIVE ITEMS**

- A. Next Meeting
- B. Adjournment



TPA Office Location

Public Parking

Private Parking

\*Metered on-street parking available citywide  
(free with Handicap placard up to 4 hours)

**Palm Tran**  
PalmTran.org

Palm Tran Bus Stop

Palm Tran Route 1

**WEST PALM BEACH**  
DowntownWPB.com

Yellow Trolley

Green Trolley

Blue Trolley

**TRI & RAIL**  
Tri-Rail.com

**brightline**

GoBrightline.com  
Brightline Station

**CIRCUIT**

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West Palm Beach & Palm Beach  
7 days a week. Download the  
app to ride.

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App Store

GET IT ON  
Google Play

**Robert S. Weinroth, Mayor**  
**TPA Chair**  
Palm Beach County

**Chelsea S. Reed, Mayor**  
**TPA Vice Chair**  
City of Palm Beach Gardens

**Joel Flores, Mayor**  
**At Large Member**  
City of Greenacres

**Maria Marino, Commissioner**  
**At Large Member**  
Palm Beach County

**Michael J. Napoleone, Councilman**  
**At Large Member**  
Village of Wellington

**Paul Gougelman, Esq.**  
**TPA General Counsel**  
Non-Voting Advisory

**NOTICE**

This is a meeting of the Palm Beach MPO doing business as the Palm Beach Transportation Planning Agency.

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 send email to [Info@PalmBeachTPA.org](mailto:Info@PalmBeachTPA.org) at least five business days in advance. Hearing impaired individuals are requested to telephone the Florida Relay System at #711.





**OFFICIAL MEETING MINUTES OF THE  
PALM BEACH TRANSPORTATION PLANNING AGENCY (TPA)  
EXECUTIVE COMMITTEE**

**May 3, 2022**

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

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*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 and video recordings are available for review  
at [PalmBeachTPA.org/Executive-Committee](http://PalmBeachTPA.org/Executive-Committee)*

**1. REGULAR ITEMS**

**1.A. Call to Order and Roll Call**

CHAIR WEINROTH called the meeting to order at 3:06 p.m.

The recording secretary called the roll. A quorum was present in-person as depicted in the table below.

Member	Attendance	Member	Attendance
Joel Flores	P	Chelsea Reed	P
Maria Marino	P	Robert Weinroth	P
Michael Napoleone	P		

P = Present A = Absent

**1.B. APPROVED: May 3, 2022 Agenda**

There were no modifications to the published agenda.

**MOTION to Approve May 3, 2022 Agenda made by Mayor Flores, seconded by Vice Chair Reed, and carried unanimously 5-0 as depicted in the table below.**

Member	Vote	Member	Vote
Joel Flores	Y	Chelsea Reed	Y
Maria Marino	Y	Robert Weinroth	Y
Michael Napoleone	Y		

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

**1.C. Review the Committee's Charge**

CHAIR WEINROTH stated pursuant to TPA Operating Procedures Section 2.2.F.2, the Executive Committee shall meet as necessary to review and recommend content related to other TPA initiatives (e.g. the 561 Mobility Plan, the Vision Zero Action Plan, transportation surtax funding strategies, and other plans and strategies) for consideration by the Governing Board.

**1.D. General Public Comments**

There were no general public comments received.

**1.E. Comments from the Chair and Member Comments**

There were no comments received.

## 1.F. Interim Executive Director's Report

VALERIE NEILSON, TPA Interim Executive Director, provided a presentation, which can be viewed at [PalmBeachTPA.org/Executive-Committee](http://PalmBeachTPA.org/Executive-Committee).

Member discussion ensued on the target audience for the Okeechobee Boulevard and State Road 7 Workshop.

## 1.G. **APPROVED Meeting Minutes from April 12, 2022**

**MOTION to Approve Meeting Minutes made by Vice Chair Reed, seconded by Mayor Flores, and carried unanimously 5-0 as depicted in the table below.**

Member	Vote	Member	Vote
Joel Flores	Y	Chelsea Reed	Y
Maria Marino	Y	Robert Weinroth	Y
Michael Napoleone	Y		

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

## 2. ACTION ITEMS

### 2.A. **DISCUSSED: TPA Legislative and Policy Positions**

VALERIE NEILSON provided a presentation, which can be viewed at [PalmBeachTPA.org/Executive-Committee](http://PalmBeachTPA.org/Executive-Committee). Valerie stated the TPA's FY 22 Strategic Plan Action 3.D directed staff to advocate for TPA adopted legislative and policy positions. Valerie provided background of the process that occurred previously, and the current procedures staff follows. Staff recommendations included: TPA provides input in the creation of the Florida Metropolitan Planning Organization Advisory Council (MPOAC) policy positions; shares MPOAC Policy Positions with the TPA Governing Board; stays engaged in the status of policy positions; and the TPA Executive Director and Board assigns staff tasks on specific issues when necessary to support a policy position.

There were no public comments on this item.

Member discussion ensued on the funding source for legislative consultant services, deferring this task to the permanent Executive Director, utilizing the MPOAC and Palm Beach County legislative avenues, utilizing the TPA's legislative consultant services for knowledge of grant opportunities, emphasizing the need to have shovel ready projects, and support of the staff's recommendations.

It was a consensus of the committee for the TPA staff to present their recommendations to the TPA Board to support and endorse the MPOAC Legislative Policies and Positions.

### 2.B. **RECOMMENDED APPROVAL: Amendment to the TPA Operating Procedures**

VALERIE NEILSON provided a presentation, which can be viewed at [PalmBeachTPA.org/Executive-Committee](http://PalmBeachTPA.org/Executive-Committee). Valerie stated the TPA's FY 22 Strategic Plan Action 6.B directed staff to modify the TPA committees to support TPA initiatives. Valerie provided an overview of the structure and role of the three advisory committees as well as the staff's recommendations.

Member discussion ensued on the committee membership, emphasis on filling vacancies and concerns with the meeting time hindering volunteers for the Citizen's Advisory Committee (CAC), funding programs scoring and ranking oversight, process on how committees add agenda items to the Governing Board's agenda, allowing committee member documents to be shared with the caveat that it was at the direction of the committee, and allowing for the Vision Zero Advisory Committee (VZAC) to have subjective reordering as long as a reason is provided to the Governing Board in the final document.

CHAIR WEINROTH directed staff to include a 12-month attendance record when sending reminders to TPA Governing Board members of their committee appointments.

**MOTION to Recommend Approval of an Amendment to the TPA Operating Procedures made by Commissioner Marino, seconded by Councilman Napoleone, and carried unanimously 5-0 as depicted in the table below.**

Member	Vote	Member	Vote
Joel Flores	Y	Chelsea Reed	Y
Maria Marino	Y	Robert Weinroth	Y
Michael Napoleone	Y		

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

### **3. INFORMATION ITEMS**

#### **3. DISCUSSED: Executive Director Recruitment Update**

BOB SLAVIN, TPA Consultant from Slavin Management Consultants, provided an update on the status of the Executive Director job search. He confirmed the Committee's approval of the job description and announcements and stated it would be posted within the week.

There were no public comments on this item.

Member discussion ensued on the timeline to fill the position, consultant concerns with Florida's open records law and the limitations it may have on the number of applicants, and an emphasis for the consultant to have an update for the June 6<sup>th</sup> meeting.

### **4. ADMINISTRATIVE ITEMS**

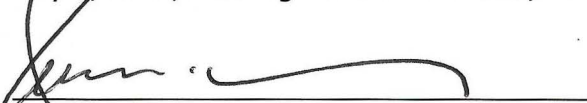
#### **4.A. Next Meeting – June 6, 2022**

#### **4.B. Adjournment**

There being no further business, the Chair declared the meeting adjourned at 4:11 p.m.

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This signature is to attest that the undersigned is the Chair, or a designated nominee, of the TPA Executive Committee and that the information provided herein is the true and correct Minutes for the May 3, 2022, meeting of the Committee, dated this 6th day of June 2022.



Chair Robert S. Weinroth  
Palm Beach County Mayor

**EXHIBIT A**  
TPA Executive Committee  
Attendance Record

<b>Representative Local Government</b>	<b>Dec '21</b>	<b>Mar '22</b>	<b>Apr '22</b>	<b>May '22</b>
Robert Weinroth, Mayor – TPA CHAIR Palm Beach County	P	P	P	P
Chelsea Reed, Vice Mayor – TPA VICE CHAIR City of Palm Beach Gardens	P	P	P	P
Joel Flores, Mayor City of Greenacres	P	P	P	P
Maria Marino, Commissioner Palm Beach County	P	P	P	P
Michael Napoleone, Councilman Village of Wellington	P	P	P	P

\*\*\* New Appointment      P - Representative Present      ALT- Alternate Present      E - Excused      A - Absent

**OTHERS PRESENT**

Alaura Hart  
Valerie Neilson  
Margarita Pierce  
Cassidy Sparks  
Amanda Williams  
Bob Slavin  
Paul Gougelman  
Daniel Crotty

**REPRESENTING**

Palm Beach TPA  
Palm Beach TPA  
Palm Beach TPA  
Palm Beach TPA  
Palm Beach TPA  
Palm Beach TPA – Slavin Management Consultants  
Palm Beach TPA – Weiss Serota et al.  
SEPI, Inc.



**Palm Tran**

**Administrative Offices**

100 N. Congress Avenue

Delray Beach, FL 33445

(561) 841-4200

FAX: (561) 841-4291

**Palm Tran Connection**

50 South Military Trail

Suite 101

West Palm Beach, FL 33415-3132

(561) 649-9838

FAX: (561) 656-7156

www.palmtran.org



**Palm Beach County**

**Board of County  
Commissioners**

Robert S. Weinroth, Mayor

Gregg K. Weiss, Vice Mayor

Maria G. Marino

Dave Kerner

Maria Sachs

Melissa McKinlay

Mack Bernard

**County Administrator**

Verdenia C. Baker

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Affirmative Action Employer"*

Official Electronic Letterhead

## MEMORANDUM Palm Beach County

**DATE:** June 8, 2022

**TO:** Valerie Neilson, Interim Executive Director, Palm Beach  
Transportation Planning Agency

**FROM:** Clinton B. Forbes, Executive Director

**RE:** Technical Advisory Committee Alternate Representative

Palm Tran respectfully requests to remove Ms. Anna Bielawska as the alternate representative to the Palm Beach Transportation Planning Agency's Technical Advisory Committee due to her recent departure from the organization. Additionally, Palm Tran is requesting to add Mr. Yash Nagal as the alternate representative. Levi McCollum will remain the primary representative.

Attached is a copy of Mr. Nagal's resume.

**CC:** Levi McCollum, Planning Director  
Yash Nagal, Planning Manager

## OVERVIEW

- Resilient and professional Transit Leader with interdisciplinary education and research experience in **Civil Engineering, Urban & Regional Planning and Project Management** with a focus on integrating **transit innovation, operations** and **safer street design** initiatives to create sustainable solutions.
- **“Trifecta” Leadership Style: Servant–Transformational-Coaching**, to support team goals and organizational priorities while developing staff leadership and performance.

---

## CORE COMPETENCIES

- |   |  |
|---|--|
| ▪ Employee Development                          | ▪ Innovative Partnerships              |
| ▪ Cross-functional & Inter-Agency Collaboration | ▪ Project Development & Implementation |
| ▪ Public Engagement                             | ▪ Service Planning                     |
| ▪ Strategic Planning                            | ▪ Operational Collaboration            |
| ▪ Succession Planning                           | ▪ Customer Experience                  |

---

## PROFESSIONAL EXPERIENCE

**Palm Tran, West Palm Beach, Florida**

### APTA Emerging Leaders Program

**June 2022 – April 2023**

- Participate in a national professional development program specifically designed to meet career needs.
- Deepen knowledge of the public transportation industry outside the area of specialization.
- Benefit from a local and national mentoring program.
- Develop a strong network of transit professionals.

### Manager of Transit Planning

**August 2021- Present**

- Oversee all Scheduling, Service Planning, Bus Stop Maintenance and Strategic Planning efforts.
- Collaborate with municipal, state and internal stakeholders to implement best practices.
- Create and manage employee development programs.
- Support problem resolution and decision making.
- Conduct and manage performance evaluations.
- Hiring and staffing.
- Relationship building with both internal and external stakeholders.

- Strategize and innovate work flows.
- Staff training.

### **Senior Transit Planner**

**June 2019- August 2021**

- Project Manager for Quarterly Service Changes.
- Project Manager for Route Performance Maximization 2.0 to introduce first and last mile services and expand mobility on demand services.
- Project Manager for construction/installation of Capital Bus Stop Improvements, including Simme-Seats, Bus Shelters, Bus Benches and other innovative amenities.
- Project Manager for bus stop improvement program.
- Lead Service Enhancement Super-Team and collaborated with operators and other team leads in maintaining peak performance to enhance operations.
- Secured 150K grant for ADA improvements in Palm Beach County as Palm Tran's Representative at Palm Beach TPA's BTPAC committee.
- Leveraged interpersonal skills to manage bus stop operations and customer feedback processes of 3000 bus stops.
- Project Manager for Planning Studies- Okeechobee Blvd Premium Transit Corridor Study, Transit Signal Priority System-Wide Implementation, System Evaluation through Telecommunication Data, Bus Stop Consolidation, Inventory and ADA Transition Plan.

**Palm Tran, West Palm Beach, Florida**

### **Transit Planner II**

**February 2019- June 2019**

- Assisted with post Route Performance Maximization changes.
- Team lead for PT STAT On Time Performance

**Central Florida Regional Transportation Authority (LYNX), Orlando, Florida**

### **Planning Technician**

**March 2018 - January 2019**

- Deputy Project Manager SR 50 Station Area Analysis and Public Outreach Plan
- Managed LYNX TOD Readiness Evaluation project
- Researched and analyzed the potential for NeighborLink vehicles for the application of Micro-Transit as a part of Route Optimization Study
- Analyzed and mapped Fixed Route and NeighborLink Transit Service access by time of day to low income households for public outreach at Central Florida Poverty Conference
- Assisted with renewing and reviewing of Automated Passenger Counters Benchmarking Plan for National Transit Database reporting

**University of Florida, Port Salut, Haiti/Punta Cana, Dominican Republic**

### **Research Student**

**May 2016 – June 2016**

- Complied observational data for Restavek Freedom Foundation and volunteered within transitional homes to integrate cultures with formerly abused at risk youth
- Developed and implemented community needs assessment for low income urban areas by generating observational, qualitative and quantitative data.

**Mehta and Associates**, Indore, India

**Assistant Project Engineer**

**July 2015 – November 2015**

- Researched Station Area Development for Bus Rapid Transit
- Researched Smart City Initiatives for peer cities

**Gammon India**, Bhopal, India

**Civil Engineer Trainee**

**May 2014 – May 2015**

- Site construction observation and analysis

## **EDUCATION**

**Harrisburg University**, Harrisburg, PA

**Masters in Project Management**

**December 2020**

- Presented Thesis in “Impact of Investments in Soft Skill on Public Sector Project Manager”.

**University of Florida**, Gainesville, Florida

**Masters in Urban & Regional Planning**

**December 2017**

- Presented Thesis in “Evaluating Smart Land Use and Mobility in India: A Case Study on the City of Indore”.

**Oriental Institute of Science & Technology**, Bhopal, India

**Bachelors in Civil Engineering**

**May 2015**

- Major Project in “Amritam River Cleaning System”

## **PROFESSIONAL DEVELOPMENT**

- |   |  |
|---|--|
| • Project Management NTI Training                               | • Skillshare – Core principles of leadership |
| • Public Involvement in Transportation Decision Making          | • TBEST Training                             |
| • APTA Tech 2019 and 2020                                       | • Remix Training                             |
| • COMTO National – member since 2019                            | • Optibus Training                           |
| • APTA Mobility & Rail 2020                                     | • Trapeze Training                           |
| • Udemy – Master Emotional Intelligence                         |  |
| • Skillshare – Productivity and Time Management                 |  |
| • Skillshare – Importance of Political Acumen in the work place |  |
| • Skillshare – Conflict Management in the work place            |  |
| • Skillshare – Entrepreneurial Mindset in the work place        |  |
| • Skillshare – Leadership through Coaching                      |  |





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**Palm Beach County  
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Robert S. Weinroth, Mayor  
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Maria G. Marino  
Dave Kerner  
Maria Sachs  
Melissa McKinlay  
Mack Bernard

**County Administrator**

Verdenia C. Baker

*"An Equal Opportunity  
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Official Electronic Letterhead

**MEMORANDUM  
Palm Beach County**

**DATE:** June 8, 2022

**TO:** Valerie Neilson, Interim Executive Director, Palm Beach  
Transportation Planning Agency

**FROM:** Clinton B. Forbes, Executive Director

**RE:** Vision Zero Advisory Committee Representatives

A handwritten signature in blue ink, likely belonging to Clinton B. Forbes, is written over the "FROM:" line of the memorandum.

Palm Tran respectfully requests to remove Mr. Yash Nagal as the primary representative to the Palm Beach Transportation Planning Agency's Vision Zero Advisory Committee and reassign the current alternate, Mr. Bruce Guyton, as the primary representative. Additionally, Palm Tran would like to nominate Mr. Chris Walker as the alternate to Mr. Guyton.

Attached are copies of Mr. Guyton and Mr. Walker's resumes.

**CC:** Levi McCollum, Planning Director  
Yash Nagal, Planning Manager

# Bruce A. Guyton

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## Professional Objective

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Seeking a challenging and rewarding mid to senior level transit related staff position.

## Professional Summary

---

Seasoned public sector professional with over twenty five (25) years of municipal and county government experience, which includes seventeen plus 17 plus years of transit experience. In addition to staff level experience, also served three (3) terms as a Riviera Beach City Councilman (1991-1993, 1993-1995, 2013-2016).

## Experience

---

### **Senior Transit Planner Palm Beach County – Palm Tran**

**Sept 2021 – Present  
West Palm Beach, FL**

- Managing Bus Stop Complaints
- Coordinating Detours with Operations and Marketing
- Attending Pre-Construction Meetings
- Monitoring Road Construction Projects for Possible Detours
- Reviewing Construction Plans
- **Project** Manager – Bus Bench Contract
- **Project** Manager – Bus Shelter Contract
- Co-Manage Simme Seat Expansion Project
- Assist with bus driver bid process
- Special projects, as assigned

### **Transit Planner II Palm Beach County - Palm Tran**

**July 2019 – Sept 2021  
West Palm Beach, FL**

- **Project** Manager – Bus Bench Contract
- **Project** Manager – Bus Shelter Contract
- Co-Manage Simme Seat Expansion Project
- Assist with bus driver bid process
- Special projects, as assigned

### **Senior Site Planner Palm Beach County - Zoning Division**

**Nov 2018 – June 2019  
West Palm Beach, FL**

- Professional site planning work involving all phases of the land development process
- Enforcing and interpreting Palm Beach County Unified Land Development Code (ULDC)
- Supervising three site planners

### **Manager of Governmental Affairs Palm Beach County – Palm Tran**

**Feb 2018 – Nov 2018  
West Palm Beach, FL**

- Monitored legislative issues at the local, state and federal levels
- Attended legislative sessions at the county, state and federal levels
- Met with policymakers, and staff at all levels, regarding legislative issues that impact Palm Tran
- In collaboration with the Executive Leadership team, developed a legislative strategy and agenda
- Initiated community outreach and engagement, as needed, to advance the legislative agenda
- Identified potential funding and/or grants to advance Palm Tran's goals and operations

### **City Councilman City of Riviera Beach**

**Mar 2013 – Mar 2016  
Riviera Beach, FL**

- One of five elected officials who set policy for the city
- One of five elected officials who evaluated the performance of the City Manager, City Attorney and the Community Redevelopment Agency Executive Director

**Planner  
Palm Beach County – Palm Tran**

**May 2002 – Feb 2018  
West Palm Beach, FL**

- Facilitated and oversaw process for Palm Tran to receive Automatic Passenger Counter (APC) certification from the Federal Transit Agency (FTA)
- Monitored the Automatic Passenger Counter (APC) system to comply with the certification issued by the Federal Transit Administration (FTA)
- Collected Ridership Data
- Managed Bus Shelter Contract
- Managed Bus Bench Contract
- Assisted bid process for bus drivers
- Assisted with the Disadvantaged Business Enterprise (DBE) outreach program.
- Responded to rider complaints
- Assisted with special projects, as assigned

**Planner  
Palm Beach County - Housing and Community Development**

**Jan 1998- May 2002  
West Palm Beach, FL**

- Ran day-to-day operations of the Westgate Community Redevelopment Agency (CRA) for the first 3 years, including but not limit to: annual budget preparation; overseeing major infrastructure project; grant preparation; monitoring of the tax increment fund (TIF); advising the Westgate CRA Board of Directors on issues impacting the agency; prepared all reports required by outside agencies and governmental entities
- Reviewed Community Development Block Grant (CDBG) applications
- Provided professional and technical assistance to grant applicants
- Monitored grant recipients for contract compliance
- Reviewed and analyzed data submitted by grant recipients

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## **Education**

**Master's Degree: Urban and Regional Planning**

Florida Atlantic University  
Boca Raton, Florida  
2010

**Bachelor of Science Degree: Business Administration (Major), Accounting (Minor)**

Wiley College  
Marshall, Texas  
1982

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## **Affiliations**

Founding President, Conference of Minority Transportation Officials (COMTO) Palm Beach County  
Member, COMTO Council of Presidents  
Member, COMTO National Legislative Advisory Council  
Chair, COMTO 2019 National Convention Legislative Committee  
Member, Government Affairs Committee, American Public Transportation Association (APTA)  
Member, Government Affairs Committee, Florida Public Transportation Association (FPTA)  
Member, Kappa Alpha Psi Fraternity, Inc.

# Christopher Walker

## Education

*Florida Atlantic University*, Boca Raton, FL  
**Bachelor of Urban and Regional Planning**, August 2020

*Palm Beach State College*, Lake Worth, FL  
**A.S. Business Administration and Management**, December 2014

## Experience

*Palm Tran*, West Palm Beach, FL  
**Transit Planner II**, January 2022-Present

- Develop quarterly service changes, including proposing service enhancements and route modifications to improve efficiency and increase ridership.
- Assist in the management of bus stops including responding to customer feedback, placement of stops, and placement of stop amenities.
- Responsible for coordinating detours that impact fixed route bus service.

*Broward County Transit*, Plantation, FL  
**Service Planner**, February 2021-January 2022

- Responsible for Service Planner functions of Broward County Transit's local fixed bus, commuter bus, and community shuttle service.
- Coordinated with multiple departments within the agency to lead reviews of new route segments and certify new corridors for use by articulated buses.
- Worked with city partners within the county to implement new community shuttle routes and audit existing routes.
- Assisted with gathering data for completing the agency's Community Shuttle Program Title VI Major Update.

*Palm Tran*, West Palm Beach, FL  
**Planning Intern**, September 2018-September 2020

- Participated in outreach events to inform riders of route changes.
- Compiled ridership information using Avail APC data.
- Performed APC verification counts.
- Assisted the planning department in analyzing areas where service can be modified and improved for efficiency and customer convenience.
- Used Remix software to create cost scenarios for route modifications and new routes.
- Provided support during the bus operator bid process.
- Responded to customer concerns related to the planning department.

## TPA RESOLUTION 2022-XX

### **A RESOLUTION APPROVING THE FINANCIAL POLICIES OF THE PALM BEACH TRANSPORTATION PLANNING AGENCY FINANCIAL POLICIES; MAKING FINDINGS; PROVIDING AN EFFECTIVE DATE.**

**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 mission to collaboratively plan, prioritize and fund the transportation system is carried out pursuant to 23 United States Code (U.S.C.) §134, 49 U.S.C. §5303, 23 Code of Federal Regulations (C.F.R.) §450 Subpart C, and Section 339.175, Florida Statutes (F.S.); and

**WHEREAS** the TPA is subject to Generally Accepted Accounting Principles (GAAP), Defense Contract Audit Agency (DCAA) standards, Federal Single Audit Requirements, and 2 CFR part 200 regulations as a recipient of funding from the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Florida Department of Transportation (FDOT), Florida Commission for the Transportation Disadvantaged (CTD), Palm Beach County, and local Palm Beach County municipalities; and

**WHEREAS**, GAAP, Federal Single Audit, and DCAA Compliance requirements stipulate the importance of sound internal controls, clear governance, and effective financial reporting to ensure the protection and effective use of public tax dollars; and

**WHEREAS**, the TPA Financial Policies codify the requirements, expectations, and reporting to be delivered by TPA staff and ensure compliance with all federal and state regulations for financial controls.

**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 hereby:

1. Approves the TPA Financial Policies, attached hereto as "Exhibit A" and by reference is incorporated herein.
2. Authorizes the Executive Director to:
  - a. Execute administrative modifications as defined in the policy; and
  - b. Modify links, references, and procedures to maintain compliance with the adopted policy without approval from the TPA Governing Board.

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**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 June 2022.

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

By: \_\_\_\_\_  
Mayor Robert S. Weinroth, as its Chair

ATTEST:

\_\_\_\_\_  
Margarita Pierce, TPA Executive Administrator

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

\_\_\_\_\_  
Paul R. Gougelman, TPA General Counsel



# FINANCIAL POLICIES

ADOPTED JUNE 16, 2022



**PALM BEACH**  
Transportation  
Planning Agency



### **Financial Policies for Transportation Planning Activities**

Approved by the Palm Beach Transportation Planning Agency on  
June 16, 2022

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Robert S. Weinroth, Palm Beach County Mayor  
TPA Chair



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## APPENDICES

Appendix A – Acronyms

Appendix A – Resolution Adopting the TPA Financial Policies

## INTRODUCTION

The Palm Beach MPO, doing business as the Palm Beach Transportation Planning Agency (TPA or MPO), serves as the designated Metropolitan Planning Organization to administer the federally mandated transportation planning process for all of Palm Beach County. The TPA is part of a larger South Florida urbanized area referred to as the Miami FL Urbanized Area (UZA) that also includes the Miami-Dade Transportation Planning Organization (TPO) and the Broward MPO.

The TPA's mission to collaboratively plan, prioritize and fund the transportation system is carried out pursuant to 23 United States Code (U.S.C.) §134, 49 U.S.C. §5303, 23 Code of Federal Regulations (C.F.R.) §450 Subpart C, and Section 339.175, Florida Statutes (F.S.).

### **Mission**

*To collaboratively plan, prioritize, and fund the transportation system*

### **Vision**

*A safe, efficient, and connected multimodal transportation system*

The TPA receives funding from the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Florida Department of Transportation (FDOT), Florida Commission for the Transportation Disadvantaged (CTD), Palm Beach County, and local Palm Beach County municipalities and is therefore subject to Generally Accepted Accounting Principles (GAAP), Defense Contract Audit Agency (DCAA), Federal Single Audit Requirements, and 2 CFR part 200 regulations.

GAAP, Federal Single Audit, and DCAA Compliance requirements stipulate the importance of sound internal controls, clear governance, and effective financial reporting to ensure the protection and effective use of public tax dollars.

The TPA operates on a July 1 through June 30 fiscal year.

The TPA is funded via a reimbursement program with FDOT. FDOT serves as the direct recipient of federal funds and passes those funds through to the TPA. This funding relationship requires the TPA to expend the dollars first and then submit a reimbursement report to FDOT. The TPA compiles the expenditures, activities, and a progress report, followed by a reimbursement request to FDOT for processing.

The TPA Financial Policies codify the requirements, expectations, and reporting to be delivered by TPA staff and ensure compliance with all federal and state regulations for financial controls.

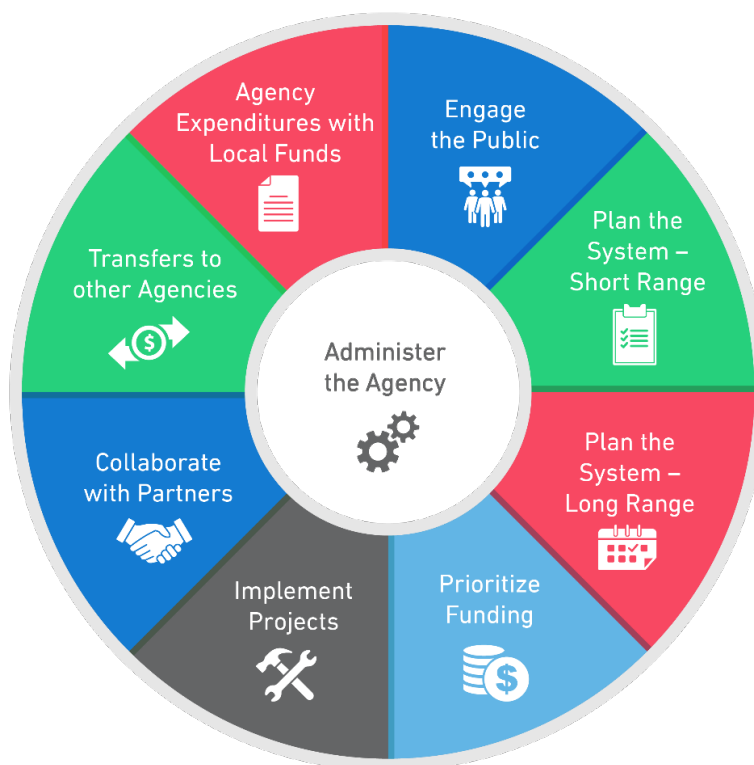
## Unified Planning Work Program

The TPA is funded via the agency's two (2) year Unified Planning Work Program (UPWP) which serves as the TPA's plan of operations and budget and identifies the agency's transportation planning activities for the two-year period. The UPWP is approved by the TPA Governing Board and approved by FDOT, FHWA, and FTA as required. The UPWP is guided by the TPA's vision of a safe, efficient,

and connected multimodal transportation system. The UPWP includes a description of planning work and resulting products, responsible agencies, schedules, costs, and funding sources.

Annual and multi-year activities, deliverables, and estimated completion dates are identified within each task. Each task is budgeted individually with funding amounts identified by source.

The UPWP consists of the following tasks:



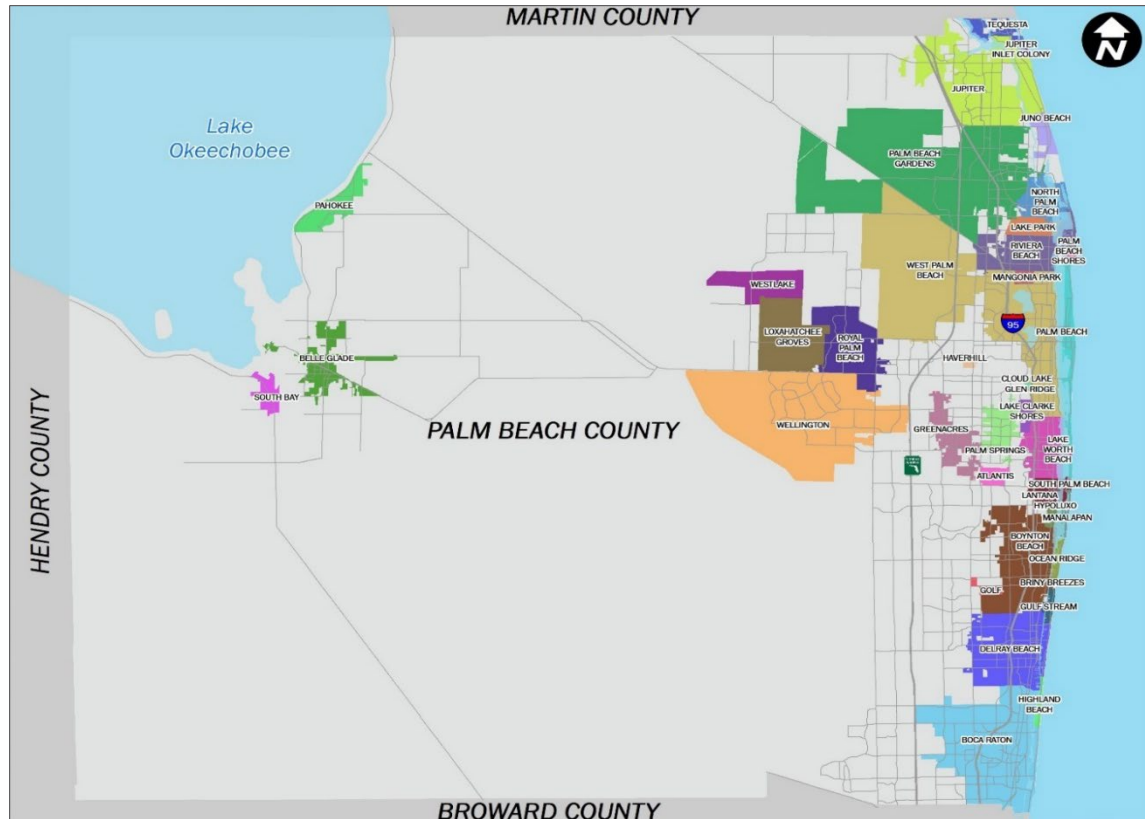
**Figure 1. Required Activities**

## Procurement Policy

The TPA has adopted the TPA Procurement Policy which directs the procurement of goods and services and maintains compliance with 2 CFR Part 200 requirements for the agency.

## Planning Area

The TPA is part of the Miami FL UZA/TMA with the primary planning area being the whole of Palm Beach County as identified in **Figure 1**.



**Figure 2. Palm Beach TPA Planning Area**

## Public Participation Process

The TPA prioritizes public engagement to promote greater awareness of TPA functions and increase information and analysis of TPA projects and programs. The TPA presents at public meetings, participates in outreach events, and provides comprehensive information on the TPA's website ([PalmBeachTPA.org](http://PalmBeachTPA.org)) and social media platforms.

The TPA's Public Participation Plan (PPP) guides the process to provide complete information, timely public notice, full public access to key decisions, and support for early and continued involvement.

## STAFF RESPONSIBILITIES & ROLES

### Executive Director

Directs the activities and efforts of TPA staff with final authority on all policy, procedure, accounting functions, personnel decision-making, bid/no bid decisions, investments, banking, and finance. The Executive Director has final authority on all Agency matters subject to policies and decisions of the TPA Governing Board. The Executive Director has binding signature authority and is authorized to execute agreements up to \$25,000.

### Chief Financial Officer (CFO)

Directs the Finance Department in financial management, accounting, budgeting, procurement, grant compliance, investment, reporting, audit, payroll execution, retirement, IT, and operational activities necessary to support the TPA in delivering the Metropolitan Planning Process for Palm Beach County. The CFO drafts the necessary policies and procedures to maintain federal, state, and local grant funding compliance. The CFO has binding signature authority and is authorized to execute agreements up to \$5,000. The CFO is further authorized to release payments upon contract manager approval.

### Procurement & Grants Coordinator

Member of the Finance Department supporting the CFO in procurement, purchasing, contract management, cost proposals, grant compliance, asset management coordinator, and grant reimbursement submissions.

### Staff Accountant

Member of the Finance Department supporting the accounting, financial reporting, audit, payroll, travel, mileage, and retirement coordination.

### Contract Manager

The Executive Director or staff member authorized by the Executive Director to manage the efforts of a contract or work order. The Contract Manager is responsible for verifying invoices, funds expended, funds remaining, assessing work progress, and approving the satisfactory delivery of the goods or services in the assigned agreement.

### Receiver

TPA staff member other than the staff member executing payment for the goods or services. Members of the Finance Department shall not be the receiver.

### Human Resources Representative

Responsible for administering personnel policies and procedures, which includes recruitment correspondence, reference checks, employee policy manual updates/revisions, employee onboarding, terminations, employer legal compliance, and timesheet policy guidance. Regularly available point of contact for all employees on HR matters.

**Custodian**

Responsible for the custody and control of assets assigned to their respective department.

**Depositor**

Staff member charged to deposit funds for the TPA. This may be any member of the Finance Department or the Executive Director.

**FINANCIAL REPORTING**

The TPA is required to administer funding, monitor progress, deliver activities, and report the financial outcomes and expenses as directed by the adopted UPWP.

TPA staff shall provide a quarterly fiscal report to the TPA Governing Board. The fiscal report shall include at minimum current budget vs submitted grant reimbursements and travel reports.

The TPA shall obtain the services of and fully cooperate with an external auditor to provide an annual single audit of TPA grant funded programs as required by federal and state statutes.

The Executive Director shall provide a report on the status of corrective actions to the external auditors' Management Letter to the members of the TPA Governing Board no later than six months after receipt of the Management Letter.

**FINANCIAL POLICIES****Fraud, Waste, and Abuse**

Fraud, Waste, and Abuse are known areas of exploitation of federal, state, and other sources of public funding. Government Auditing Standards require the implementation of sufficient internal controls to mitigate and resolve all instances of potential or actual Fraud, Waste, and Abuse.

**Policy**

TPA Leadership is responsible for the prevention, detection, investigation, and correction of all instances of Fraud, Waste, and/or Abuse.

TPA Leadership shall take all measures necessary to ensure that staff are free to report any concerns they may have without fear of prejudice or harassment.

The TPA will not tolerate fraud, impropriety or dishonesty and will investigate all instances of suspected fraud, impropriety, or dishonest conduct by TPA staff, officials, or external organizations (contractor or client). An investigator assigned by the Executive Director shall conduct related fact-finding and issue an investigative report unless an external investigating body with jurisdictional authority conducts fact-finding.

The TPA employs a zero-tolerance attitude to criminal breaches of business practices which may be reported to the appropriate law enforcement authorities.

The TPA will take action – including dismissal, civil prosecution, and/or seeking criminal prosecution – against any member of staff defrauding (or attempting to defraud) the TPA, other TPA staff, TPA clients or contractors.

The TPA will take action – including civil prosecution or seeking criminal prosecution – against external organizations defrauding (or attempting to defraud) the TPA, TPA staff in the course of their work, TPA clients or contractors.

The TPA will co-operate fully with an external investigating body.

The TPA will always seek to recover funds lost through fraud.

All frauds will be recorded and reported to the TPA's External Auditor.

## Grant Expense Reporting

The TPA will review the latest Compliance Supplement to determine that the applicable compliance requirements are properly controlled for in accordance with Part 6 of the most recently issued Compliance Supplement.

The TPA shall maintain grant funds separately within the accounting system for each funding program.

TPA staff shall designate purchases, contracts, agreements, and work orders eligible for grant reimbursement during procurement, contract execution, and work order issuance phases.

TPA staff shall include at minimum the following information for grant expense records:

Vendor Name, Invoice Number, Amount, Service Period, Fiscal Year, Payment Date, UPWP task, Expense Approval, Check #, Voucher # or Credit Card Account #, Payment Record, Procurement Reference, Work Order Reference, Purchase Request Form, or Purchase Order, as applicable.

TPA staff shall record grant expenditures in the correct accounting fund. Errors shall be corrected in a timely manner via corrected payment release form, journal entry, or written communication by the CFO.

TPA staff shall prepare grant progress reports within 30 days of period closure.

TPA staff shall compile, review, and submit grant reimbursement reports within 90 days of period closure.

TPA staff shall maintain complete records of all Grant Expenses for audit purposes for a period of at least five (5) non-calendar years after the closure of the grant.

TPA staff shall complete the Schedule of Expenditures of Federal Aid Report (SEFA) and all supporting documents, ledgers, and reports by August 31 each year.

A copy of all grant audits and monitoring reports shall be made available to the TPA Governing Board.

The Executive Director shall establish policies and procedures relating to grant applications and related award agreements, accounting, indirect costs, and Single Audit requirements. The TPA will review each expenditure charged to each grant to ensure that the indirect expenses chargeable to the applicable grants will be done so in accordance with the specific agreements and the Uniform Guidance.

## **Time and Effort Reporting**

All TPA staff members shall complete a timesheet that accurately details their daily efforts including time worked by task and any unpaid leave. The staff member shall account for 100% of scheduled work hours within a pay period, including both paid and unpaid hours regardless of standard workday duration.

TPA staff shall date and sign their timesheets and submit their timesheets to their respective supervisors for approval. Erroneous or rejected timesheets shall be returned to the staff member for prompt correction or revision and resubmission.

Timesheets shall be approved prior to payroll execution. The Executive Director's timesheets shall be collected and approved by the TPA Governing Board at the next Governing Board Meeting following the submission of a timesheet.

## **Asset Management**

All TPA staff have a fiduciary responsibility to the citizens of Palm Beach County to safeguard the TPA's assets. The Executive Director shall establish sufficient controls to protect public funds and property from theft, damage, misuse, or other potential loss.

The TPA shall tag newly acquired assets with an acquisition cost exceeding \$5000 and a useful life greater than one (1) non-calendar year. Additional items to be barcoded regardless of their value include controlled items such as overhead projectors, printers, televisions, DVD players, video cameras, digital cameras, PCs, monitors, laptop computers, tablets, two-way radios, and any item which may be easily stolen.

The TPA shall maintain a record of all capital assets with unique assets numbers, purchase information, and location information.

The TPA shall conduct a physical inventory annually for all inventoriable assets. The physical inventory shall record a minimum of all quantities and locations of inventoried assets.

The TPA shall coordinate repairs, donation, destruction, transfer, theft, sale, abandonment, or disposition of assets in accordance with the TPA Procurement Policy and as directed by the CFO.

## **Checks, Vouchers, and Cash Receipts**

TPA staff shall safeguard all checks, vouchers, and cash receipts at all times with a clear chain of custody and storage of payments in locking safe equipment.



TPA staff shall deposit funds as soon as practicable.

TPA staff shall deposit all checks, vouchers, and cash within three (3) TPA working days of receipt.

TPA staff shall deposit checks and vouchers in excess of \$10,000 on the date of receipt.

TPA staff shall record receipt of payment and deposit of funds within the accounting system as soon as practicable but no later than the month end closing procedures.

## Bank Account Reconciliations

TPA staff shall reconcile each TPA bank account by the 15th day of the following month. Bank discrepancies will be communicated to the CFO or Executive Director for resolution with the bank within five (5) TPA working days of the bank reconciliation. Posting discrepancies will be documented and corrected in the accounting system within five (5) TPA working days of the bank reconciliation.

## Accounting Period Closing Activities

The TPA Finance Department shall conduct accounting on a modified accrual schedule in accordance with all DCAA, GAAP, and 2 CFR 200 requirements.

The TPA Finance Department shall conclude the transactions and close the books for each calendar month by the 20th day of the following calendar month.

The TPA Finance Department shall provide quarterly fiscal reports to the TPA Governing Board by the end of the following quarter.

The TPA Finance Department shall provide an audited annual financial report to the TPA Governing Board.

## Monthly Period Reporting

The TPA Finance Department shall transmit monthly financial reports to the Executive Director by the last day of the following month. The reports shall include but not be limited to the following:

- Accounts Payable Aging Report
- Accounts Receivable Aging Report
- Budget vs Expense Reports by fund source
- Non-Reimbursable Expenses Report
- Unbilled Receivables Report
- Contract Status Reports for contracts exceeding \$25,000 annually
- Journal Entries for Authorization Report including at a minimum the following:
  - Month-end accrual entries
  - Staffing charges allocations
- Bank Reconciliation Report
- Procurement Report
- Available Funding Report

## Annual Period Reporting

The TPA Finance Department shall transmit annual financial reports to the Executive Director by the last day of August. The reports shall include but not be limited to the following:

- Accounts Payable Aging Report
- Accounts Receivable Aging Report
- Budget vs Expense Reports by fund source
- Non-Reimbursable Expenses Report
- Unbilled Receivables Report
- Contract Status Reports for contracts exceeding \$25,000 annually
- Schedule of Prepaid Expenses
- Schedule of Accrued Payroll Liabilities (end of year)
- Accrued Wages
- Accrued Sick, Vacation, Comp Time, Holiday Pay
- Accrued Tax Obligations – Social Security & Medicare
- Accrued Fringe Benefit Obligations – 457b & FRS
- Schedule of Compensated Absence Obligations - Vacation, Sick and Comp Time
- Asset Additions and Disposals Report
- Journal Entries for Authorization Report including at a minimum the following:
  - Year-end expense accrual entries
  - Year-end accrued wages
- Booked vs Billed Report
- Schedule of Expenditures of Federal Aid Report (SEFA)
- Investments Report

## Budgeting

The TPA Governing Board shall consider for approval the UPWP as a two (2) fiscal year period with operating budgets for each fiscal year that projects income and expenses as well as provides for programs and support services as outlined in the work plan for the year.

TPA staff shall determine available funding for the upcoming UPWP cycle in coordination with FHWA, FDOT, FTA, and local funding partners.

TPA staff shall develop the UPWP inclusive of Federal and State planning requirements, TPA Governing Board directed activities, and staff identified projects necessary to deliver the Metropolitan Planning Process.

TPA staff shall present a draft UPWP and seek comment from the TPA Governing Board, advisory committees, FHWA, FTA, FDOT, and the public.

TPA staff shall incorporate comments as deemed feasible, eligible, and acceptable to the TPA Governing Board.

The TPA Governing Board will approve the annual budget prior to the start of the fiscal year.

TPA staff may make administrative modifications in coordination with FDOT, FTA and FHWA to deliver the work program adopted as the UPWP.

TPA staff shall prepare and coordinate draft UPWP amendments with FDOT, FTA and FHWA as required and present amendments for adoption by the TPA Governing Board.

### Budget Timeline

November 30 – TPA Finance Department completes Draft Revenue Forecast

December 15 – TPA Finance Department completes Carry-Forward Estimations

December 31 – TPA Finance Department completes personnel, direct and travel, transfers to other agencies, and consultants expense forecasts

January 8 – TPA staff completes review of UPWP tasks and activities

January 15 – Draft UPWP ready for TAC, CAC, and VZAC agendas

February – Draft UPWP presentations to TPA Governing Board and advisory committees; submission to FHWA, FTA and FDOT; and open for public comment

March 20 – Incorporation of UPWP comments

April – Final UPWP Adoption

### Authorizations

The TPA Governing Board authorizes and directs the Executive Director to manage the TPA in accordance with the approved UPWP and included annual operating budgets. Programmatic, scope, or operational changes that may have a material impact on the UPWP shall be reviewed by the TPA Governing Board between budget cycles and may lead to a budget amendment or administrative modification as required by FDOT's MPO Handbook and UPWP Guide.

The Executive Director is authorized to execute administrative modifications as defined herein.

The Executive Director is authorized to modify links, references, and procedures to maintain compliance with this adopted policy without approval from the TPA Governing Board.

## DEFINITIONS

**Abuse** – The excessive or improper use of government resources, including position and authority.

**Bank Statement** – List of all transactions for a bank account over a set period (usually monthly 1st - 31st but may be at any time through the month)

**Conflict of Interest** – A conflict of interest exists if there is "any matter that the public officer knows would inure to his or her special private gain or loss." "'Special private gain or loss' means an economic benefit or harm that would inure to the officer, his or her relative, business associate, or principal, unless the measure affects a class that includes the officer, his or her relative, business associate, or principal." F.S. §112.3143.

**Embezzlement** – The fraudulent taking of personal property with which one has been entrusted, especially as a fiduciary. The criminal intent for embezzlement — unlike larceny and false pretenses — arises after taking possession (not before or during the taking).

**Expense Approver** – The Executive Director has ultimate authority to approve or delegate the approval of expenses. The Executive Director may delegate contracts, work orders, or purchases to TPA staff to manage and approve. All invoices for services or goods shall be submitted to the Executive Director or the delegated staff member. The CFO is authorized to execute payments upon the authorization of the Executive Director or delegated staff member.

**Fraud** – A knowing misrepresentation or knowing concealment of a material fact, or the use of some other deceptive scheme, made to induce another to act to his or her detriment. Fraud is usually a tort, but in some cases (especially when the conduct is willful) it may be a crime. It is any *kind of artifice by which another is deceived*. Hence, all surprise, trick, cunning, dissembling, and other unfair way that is used to cheat anyone, is to be considered as fraud.” John Willard, *A Treatise on Equity Jurisprudence* 147 (Platt Potter ed., 1879). It also may be a reckless misrepresentation made without justified belief in its truth to induce another person to act, or a tort arising from a knowing or reckless misrepresentation or concealment of material fact made to induce another to act to his or her detriment. Additional elements in a claim for fraud may include reasonable reliance on the misrepresentation and damages resulting from this reliance. Thus, ‘fraud’ at common law is a false statement ...’, but fraud in equity has often been used as meaning unconscientious dealing.

**General Ledger** – Listing of all accounts, transactions, and account balances within the TPA’s Accounting System.

**Investigator** – Individual appointed by the Executive Director to conduct an investigation of alleged Fraud, Waste, and/or Abuse. The Investigator shall have open access to all files that the Investigator deems necessary to fully investigate the matter, authorization to conduct interviews, and full access to the TPA’s Legal Counsel during the course of the investigation.

**Key Person** – A key person is specified in the application or federal award. For the purposes of the UPWP, a key person is the MPO’s staff director per FDOT’s UPWP Guide.

**Metropolitan Planning Process** – A continuing, cooperative, and comprehensive performance-based multimodal transportation planning process, including the development of a metropolitan transportation plan and a Transportation Improvement Program, that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity buses and intercity bus facilities and commuter vanpool providers) fosters economic growth and development, and takes into consideration resiliency needs, while minimizing transportation-related fuel consumption and air pollution; and encourages continued development and improvement of metropolitan transportation planning processes guided by the planning factors set forth in 23 U.S.C. 134(h), 49 U.S.C. 5303(h) and 23 CFR 450.300.

**Misappropriation** – 1. The application of another’s property or money dishonestly to one’s own use. See Embezzlement. 2. The doctrine giving rise to such a tort claim. 3. To put property or funds over which a person has been entrusted to wrongful use.

**MPO** – A Metropolitan Planning Organization.

**Payment Date** – The date the payment was initiated to the vendor.

**Payment Record** – A payment record may be a voucher payment receipt, invoice marked “Paid”, Credit Card Statement or Vendor receipt.

**Public Officer** – Any person elected or appointed to hold office in any agency, including any person serving on an advisory body.

**Reconcile** – Process of review, comparison, and verification of financial transaction records in the TPA Accounting System’s general ledger with the statement(s) from the bank institution.

**Reconciliation Report** – Series of documents including the Reconciliation Summary and the Reconciliation Detail that are issued through the TPA Accounting System recording the completion of reconciliation activities.

**SEFA** – Schedule of Expenditures of Federal Awards required to be completed by the TPA and included in the Single Audit proceedings.

**Service Period** – The date or date range in which the services were provided to the TPA.

**Supporting Documents** – Documents detailing deposit or expense transaction that has been verified and signed by an approving authority.

**Theft** – The excessive or improper use of government resources, including position and authority.

**TIP** – The Transportation Improvement Program is a prioritized listing/program of transportation projects covering a period of four (4) years that is developed and formally adopted by an MPO as part of the metropolitan transportation planning process, consistent with the metropolitan transportation plan, and required for projects to be eligible for funding under title 23 U.S.C., title 49 U.S.C. chapter 53 and CFR 450.104.

**TPA** – The Palm Beach Transportation Planning Agency.

**UPWP** – Unified Planning Work Program constituting the TPA’s 2-year budget and operating plan.

**UPWP Amendment** – UPWP Amendments are required for the following actions per 2 CFR 200.308 and 49 CFR 18.30:

- a. Any revision resulting in the need to increase the UPWP budget ceiling by adding new funding or reducing overall approved funding;
- b. Adding new or deletion of tasks/subtasks;
- c. Change in the scope or objective of the program/task even if there is no associated budget revision (this also applies to when a task scope changes);
- d. A transfer between tasks/sub-tasks that exceeds a combined amount equal or greater than \$100,000 OR 10 percent of the total budget, whichever is more restrictive;
- e. Reducing the budget of a task/sub-task more than 50 percent, or to the point a task/sub-task could not be accomplished as it was originally approved;
- f. Change in key person;

- g. Extending the period of performance past the approved work program period (*i.e.*, no-cost time extension);
- h. Sub awarding, transferring, or contracting out any of the activities in the UPWP;
- i. The disengagement from a project for more than three (3) months, or a 25 percent reduction in time devoted to the project by the approved project director or principal investigator; and
- j. The inclusion of costs that require prior approval (*e.g.* - capital and equipment purchases \$5,000 and above per unit cost).

Waste – The intentional or unintentional, thoughtless or careless expenditure, consumption and management of government resources.

## **APPENDIX A**

### **Acronyms**

Acronym	Definition	Acronym	Definition
<b>ACES</b>	Automated/Connected/Electric/Shared-Use Vehicles	<b>FY</b>	Fiscal Year
<b>ADA</b>	Americans with Disabilities Act	<b>GIS</b>	Geographic Information System
<b>AV</b>	Automated Vehicles	<b>LCB</b>	Local Coordinating Board
<b>BMPO</b>	Broward Metropolitan Planning Organization	<b>LI</b>	Local Initiatives
<b>CAC</b>	Citizen's Advisory Committee	<b>LLC</b>	Limited Liability Company
<b>CFR</b>	Codes of Federal Regulation	<b>LOPP</b>	List of Priority Projects
<b>CMP</b>	Congestion Management Process	<b>L RTP</b>	Long Range Transportation Plan
<b>COOP</b>	Continuity of Operations Plan	<b>MDTPO</b>	Miami-Dade Transportation Planning Organization
<b>CPG</b>	Consolidated Planning Grant	<b>MOU</b>	Memorandum of Understanding
<b>CTC</b>	Community Transportation Coordinator	<b>MPO</b>	Metropolitan Planning Organization
<b>CTD</b>	Commission on Transportation Disadvantaged	<b>MPOAC</b>	Metropolitan Planning Organization Advisory Council
<b>CV</b>	Connected Vehicles	<b>PBAU</b>	Palm Beach Atlantic University
<b>DBE</b>	Disadvantaged Business Enterprise	<b>PBC</b>	Palm Beach County
<b>ERC</b>	Electronic Review Comments	<b>PBCHD</b>	Palm Beach County Health Department
<b>ETDM</b>	Efficient Transportation Decision Making	<b>PBSC</b>	Palm Beach State College
<b>FAST</b>	Fixing America's Surface Transportation	<b>PD&amp;E</b>	Project Development and Environment
<b>FAU</b>	Florida Atlantic University	<b>PEA</b>	Planning Emphasis Areas
<b>FDEP</b>	Florida Department of Environmental Protection	<b>PL</b>	Metropolitan Planning
<b>FDOT</b>	Florida Department of Transportation	<b>PM</b>	Performance Measures
<b>FEC</b>	Florida East Coast	<b>PPP</b>	Public Participation Plan
<b>FFY</b>	Federal Fiscal Year	<b>RTP</b>	Regional Transportation Plan
<b>FHWA</b>	Federal Highway Administration	<b>SEFTC</b>	Southeast Florida Transportation Council
<b>FTA</b>	Federal Transit Administration	<b>SERPM</b>	Southeast Florida Regional Planning Model
<b>FTP</b>	Florida Transportation Plan	<b>SFRPC</b>	South Florida Regional Planning Council
<b>SFRTA</b>	South Florida Regional Transportation Authority	<b>TDSP</b>	Transportation Disadvantaged Service Plan



Acronym	Definition	Acronym	Definition
<b>SHSP</b>	State's Strategic Highway Safety Plan	<b>TIP</b>	Transportation Improvement Program
<b>SIS</b>	Strategic Intermodal System	<b>TMA</b>	Transportation Management Area
<b>SRM</b>	State Road Modifications	<b>TPA</b>	Transportation Planning Agency
<b>STBG</b>	Surface Transportation Block Grant (SU)	<b>TPO</b>	Transportation Planning Organization
<b>TA</b>	Transportation Alternatives	<b>TRIP</b>	Transportation Regional Incentive Program
<b>TAC</b>	Technical Advisory Committee	<b>TSP</b>	Transit Signal Priority
<b>TCRPC</b>	Treasure Coast Regional Planning Council	<b>UPWP</b>	Unified Planning Work Program
<b>TD</b>	Transportation Disadvantaged	<b>UZA</b>	Urbanized Area
<b>TDP</b>	Transit Development Plan	<b>VZAC</b>	Vision Zero Advisory Committee

## **APPENDIX B**

### **Resolution Adopting the TPA Financial Policies**

## TPA RESOLUTION 2022-XX

**A RESOLUTION APPROVING AN AMENDMENT TO THE OPERATING PROCEDURES OF THE PALM BEACH TRANSPORTATION PLANNING AGENCY; MAKING FINDINGS; PROVIDING FOR SEVERABILITY/INTEPRATION; AND PROVIDING AN EFFECTIVE DATE.**

**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**, pursuant to Section 7 of the Operating Procedures, the TPA Governing Board may amend its Operating Procedures from time to time provided that the draft proposal for amendment is included in the agenda package at least 7 days prior to a Governing Board meeting; and

**WHEREAS**, the TPA Governing Board desires to amend Section 2 of its Operating Procedures to clarify the duties of the Executive Committee; and

**WHEREAS**, the TPA Governing Board finds these amendments to be in the public interest and in the interest of promoting its responsibilities pursuant to federal and Florida law.

**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.** Section 2.2.F of the TPA Operating Procedures be and the same are hereby amended as follows:

### **Section 2. TPA Governing Board**

\*\*\*

F. Duties of the Executive Committee – The Executive Committee shall:

1. Meet annually to review and recommend updates to the TPA's Strategic Plan for consideration by the Governing Board;
2. Meet as necessary to review and recommend content related to other TPA initiatives (e.g., the 561 Mobility Plan, the Vision Zero Action Plan, transportation surtax funding strategies, and other plans and strategies) for consideration by the Governing Board;
3. Meet as necessary to review and recommend updates to TPA policies and procedures as requested by the Executive Director;

4. Meet as necessary to participate on TPA procurement selection committees as requested by the Executive Director;
5. Meet as necessary to facilitate the process of hiring a new Executive Director, including but not limited to refining the job profile, evaluating candidates, recommending a candidate, negotiating an employment agreement for Board consideration, and recommending an interim director for Board consideration; and
6. Undertake other tasks as may be assigned by the Governing Board.

**SECTION 3.** Severability Clause/Interpretation.

a. In the event that any term, provision, clause, sentence or section of this Resolution shall be held by a court of competent jurisdiction to be partially or wholly unenforceable or invalid for any reason whatsoever, any such invalidity, illegality, or unenforceability shall not affect any of the other or remaining terms, provisions, clauses, sentences, or sections of this Resolution, and this Resolution shall be read and/or applied as if the invalid, illegal, or unenforceable term, provision, clause, sentence, or section did not exist.

b. In interpreting this Resolution, underlined words indicate additions to existing text, and ~~stricken through~~ words include deletions from existing text.

**SECTION 4.** This Resolution shall take effect upon adoption.

[Remainder of this page left blank intentionally]

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 June 2022.

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

By: \_\_\_\_\_  
Mayor Robert S. Weinroth, as its Chair

ATTEST:

\_\_\_\_\_  
Margarita Pierce, TPA Executive Administrator

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

\_\_\_\_\_  
Paul Gougelman, TPA General Counsel

## Section 2. TPA Governing Board

### 2.1 Membership

- A. Number of Governing Board Members - The number of Governing Board Members for the TPA shall be as determined by the Interlocal Agreement, as amended.
- B. Representatives - Each Governing Board Member shall designate a Representative and notify the TPA in writing of this designation. The qualifications of Representatives shall be as specified in the Interlocal Agreement.
- C. Alternates - Each Governing Board Member shall designate an Alternate(s) and notify the TPA in writing of this designation. The Alternate must meet the same qualifications as a Representative. An Alternate may serve as a Representative for the Governing Board Member during any meeting or portion of a meeting where that Governing Board Member's Representative is not in attendance.
- D. Term of Office - Representatives and Alternates shall serve until the TPA has been notified in writing of a new designation by the Governing Board Member or until their earlier death, resignation, disqualification, incapacity to serve, or removal in accordance with the law.

### 2.2 Officers

- A. Officers - The officers of the TPA shall consist of a Chair, a Vice Chair, and three at-large Representatives of the Governing Board. Together, the officers shall be referred to as the Executive Committee. Not more than two of the officers may be County Commissioners.
- B. Elections - The officers shall be elected annually at the last regularly scheduled meeting of the calendar year or earlier if desired by the TPA Governing Board. The newly elected officers shall take office on the first day of the following calendar year or earlier if desired by the TPA Governing Board. Additional elections may be held as necessary if an officer cannot carry out said officer's duties and complete the remainder of the appointed term.
- C. Officer Criteria - The Chair must have served on the TPA Governing Board as a Representative for a minimum of one year prior to taking office. All officers must have completed the MPOAC Institute training program for elected officials, attended a national Association of MPOs (AMPO) Conference, or received similar training. The training criteria can be waived by majority vote of the TPA Governing Board.
- D. Terms of Office - The term of office for officers shall be until their successors take office as provided in Section 2.2.B.
- E. Duties of the Chair - The Chair shall call and preside at TPA Governing Board meetings, set the order of business for each meeting and sign official documents for the TPA. In the Chair's absence, the Vice Chair shall preside and complete all other duties of the Chair. In the absence of both the Chair and the Vice Chair, the Representatives present shall elect a Chair Pro-Tem to preside and complete all other duties of the Chair.

In the event that the Chair is unable to carry out their duties for the remainder of the term, the Vice Chair shall automatically become Chair and a new Vice Chair shall be elected from the

remaining Representatives, including the at-large members of the Executive Committee, for the remainder of the term.

F. Duties of the Executive Committee – The Executive Committee shall:

1. Meet annually to review and recommend updates to the TPA's Strategic Plan for consideration by the Governing Board;
2. Meet as necessary to review and recommend content related to other TPA initiatives (e.g., the 561 Mobility Plan, the Vision Zero Action Plan, transportation surtax funding strategies, and other plans and strategies) for consideration by the Governing Board;
3. Meet as necessary to review and recommend updates to TPA policies and procedures as requested by the Executive Director;
4. Meet as necessary to participate in TPA procurement selection committees as requested by the Executive Director;
5. Meet as necessary to facilitate the process of hiring a new Executive Director, including but not limited to refining the job profile, evaluating candidates, recommending a candidate, negotiating an employment agreement for Board consideration, and recommending an interim director for Board consideration; and
6. Undertake other tasks as may be assigned by the Governing Board.

G. Agency clerk - The TPA Executive Director shall act as the Agency Clerk pursuant to Section 339.175(2)(e), F.S.

## 2.3 Meetings

- A. Regular Meetings - Meetings will be held on the third Thursday of each month, except as noted on the meeting calendar published to the public on the TPA website. The Chair may cancel regular meetings should there be insufficient business on the TPA's tentative agenda or a lack of anticipated quorum.
- B. Special Meetings - Special meetings may be called by the Chair with three (3) day notice. Whenever possible, at least seven (7) day notice shall be given.
- C. Workshops - Workshops may be called from time to time and shall not require a quorum; however, all workshops shall be noticed in the same manner as regular meetings of the TPA Governing Board. No official actions may be taken at a workshop.
- D. Attendance - Each Representative shall be expected to attend each regular meeting. It shall be the obligation of the Representative to provide at least 24-hours advance notice to the TPA when the Representative will not be attending a meeting. It shall be the obligation of a Representative to provide reasonable notice to the Alternate when the Representative will not be attending a meeting. An absence without advance notice or without having an Alternate in attendance will be considered unexcused.

When a Representative or Alternate for a Governing Board Member does not attend three (3) consecutive regular meetings, the TPA Executive Director will send a letter to the chief elected officer of the Governing Board Member indicating the number of absences and requesting reaffirmation or reappointment of the Governing Board Member's Representative.

- E. Agenda - The Executive Director, in consultation with the Chair, shall create a published list of items for decision (consent and action items), discussion (special presentations, reports, and information items), and receipt without discussion (administrative items) at a meeting. The agenda and any backup material for a TPA Governing Board meeting shall be published on the TPA website seven (7) days prior to the meeting or as early as practicable. Only when extenuating circumstances warrant, a Representative, Alternate, or the TPA Executive Director may propose an additional item or a modification to the agenda at the commencement of a given meeting, subject to approval by a majority of the Representatives/Alternates at the meeting; provided that consideration of such item(s) is consistent with the TPA's PPP noticing requirements.

TPA advisory committee requests to add an item to a TPA Governing Board meeting agenda or to furnish work product (*e.g.*, written report, video, *etc.*) of a specific topic to the TPA Governing Board shall first be approved by the committee in the manner and format in which the matter should be presented.

Organizations wishing to make a presentation to the TPA Governing Board must contact the Executive Director at least ten (10) days prior to the meeting. The Executive Director shall consult with the Chair to determine if the presentation should take place during the public comment period or be added as a regular agenda item. Presentations added to the regular agenda shall be limited to ten (10) minutes or as allowed by the Chair.

Members of the public wishing to add an item to a future agenda must first request the item during a Board meeting by submitting a public comment. The Board will determine whether to add the item to a future meeting.

- F. Voting Procedures - The Chair and any Representative may call for a vote on any issue, provided that it is seconded and within the purposes set forth on the agenda. Representatives must be physically present to vote unless a Representative is approved to participate remotely by the physically present Representatives. At any given meeting, if a Representative(s) is absent, the Alternate(s), may vote in place of the absent Representative(s).

Voting shall be by voice, but the minutes shall contain sufficient detail to record the vote of each Representative/Alternate. A Roll Call vote shall be held upon the request of the Chair, a Representative, or the TPA Executive Director. Pursuant to Section 339.175(13) F.S. a recorded roll call vote shall be taken for the Long Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP), and any corresponding amendments. A tie vote shall be interpreted as a failure to pass.

Any Representative who voted on the prevailing side may make a motion for reconsideration at the meeting during which the vote was taken or at the next regularly scheduled meeting unless the action for which the vote was taken has been completed by the next regularly scheduled meeting and cannot be undone. A Representative desiring to request reconsideration of a matter shall advise the Executive Director no less than ten (10) days prior to the meeting. The Executive Director shall endeavor to provide notice of the request to the TPA Governing Board Members prior to the meeting. Any Representative who was not present at the meeting at which the vote was taken shall be deemed to be on the prevailing side unless the absence was unexcused. A motion to reconsider cannot be renewed if it has been voted on and defeated except by unanimous consent of those present at the meeting.



Board Representatives/Alternates may not abstain from voting, unless the Representative/Alternate has a voting conflict of interest as defined by Section 112.3143, F.S., or unless the matter is quasi-judicial in nature and the abstention is to avoid prejudice or bias as provided in Section 286.012, F.S. If a Representative/Alternate abstains from voting, the Representative/Alternate must declare the conflict at the introduction of the item and not participate in the discussion of the item. The Representative/Alternate must then submit a completed Florida Commission on Ethics - Form 8B to the TPA Agency Clerk within 15 days after the abstention occurs.

In the absence of any direction from these Operating Procedures or other duly adopted voting procedures pursuant to certain approval actions, Robert's Rules of Order will designate procedures governing voting over any TPA Governing Board, advisory committee, subcommittee or ad hoc committee meeting. In the interest of efficiency or flexibility, a majority consensus of the TPA Governing Board may approve departures from Robert's Rules of Order.

Proxy and absentee voting are not permitted.

- G. Public Comment Procedures - All TPA Governing Board meetings shall be open to the public. Members of the public are permitted to speak on any topics not on the Agenda during the General Public Comment period by providing a Speaker Card to the Executive Director or designee prior to the commencement of the meeting. Members of the public are allowed to speak on agenda items following presentation of the item to the TPA Governing Board but prior to Representative discussion, by providing a Speaker Card to the Executive Director or designee prior to the presentation of the item. Public comment shall be limited to three (3) minutes. The deadlines for submitting a Speaker Card and time limits for public comment may be waived by the Chair.
- H. Florida's Open Meetings Law - Every Representative/Alternate shall comply with the State's Open Meetings Law. This includes not discussing current board items or other matters that may foreseeably come before the TPA Governing Board for action with other members outside of a noticed meeting.

## 2.4 TPA Board Committees

As necessary, the TPA Governing Board may establish a committee of Representatives and/or Alternates to investigate and report on specific subject areas of interest to the TPA Governing Board.

A TPA Board Committee shall consist of at least three (3) Representatives and/or Alternates. A majority of the committee members must be physically present for the committee to take formal action. The committee shall meet and establish a chair and vice chair. The chair or vice chair shall report to the TPA Governing Board at its next regular meeting on the committee's activities.

A TPA Board Committee's authority shall be limited to making recommendations regarding items to be considered by the TPA Governing Board.

## 2.5 TPA Advisory Committees and Ad Hoc Committees

The TPA Governing Board relies on the standing advisory committees as outlined below to review and make recommendations regarding items to be considered by the TPA Governing Board. No advisory

committee member may serve on more than one advisory committee to the TPA Governing Board at any time; however, advisory committee members may serve on more than one ad hoc committee in addition to serving on an advisory committee.

- A. Technical Advisory Committee (TAC) - The TAC is comprised of representatives of local governments, airports, seaports, public transit agencies, the school superintendent or designee, and other entities as deemed appropriate by the TPA Board pursuant to Section 339.175(6)(d), F.S.
- B. Citizen's Advisory Committee (CAC) - The CAC is responsible for providing the TPA Governing Board with a "citizen's eye" view of ongoing transportation issues in Palm Beach County. Members are appointed by the TPA Governing Board according to required special designations in accordance with Section 339.175(e.)1., F.S. and other categories as identified by the TPA Governing Board.
- C. Vision Zero Advisory Committee (VZAC) – The VZAC is comprised of county and municipal planners, law enforcement and fire rescues services, school district, health department, active transportation advocacy groups, or other entity as deemed appropriate by the TPA Governing Board to advance those elements of the TPA's Vision Zero Action Plan oriented around pedestrian and bicycle safety.

From time to time, an advisory committee or the Executive Director may form an ad hoc committee for the purpose of investigating specific subject areas of interest. Ad hoc committees shall report to the advisory committee(s) on their activities at the next available meeting.

## 2.6 Transportation Disadvantaged Local Coordinating Board (LCB)

The TPA Governing Board is the Designated Official Planning Agency (DOPA) for the Palm Beach County Transportation Disadvantaged (CTD) program, as designated by the Florida Commission for the Transportation Disadvantaged. In accordance with Section 427.0157, F.S., all members of the LCB shall be appointed by the DOPA. Membership and conduct are established by separate by-laws adopted by the LCB.

The LCB is an advisory body to the CTD and identifies local service needs and provides information, advice and direction to the Palm Beach County Community Transportation Coordinator (CTC) on the coordination of services to be provided to the transportation disadvantaged through the Florida Coordinated Transportation System.

**PALM BEACH TRANSPORTATION PLANNING AGENCY TIME SHEET  
FY 2022**

# 1.H.6

NAME: Valerie Neilson  
FROM: May 7, 2022  
Period Date

TITLE: Interim Executive Director  
TO: May 20, 2022  
Period Date

OVERTIME EXEMPT STATUS: YES X NO       

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	M	T	W	T	F	M	T	W	T	F	
	05/09	05/10	05/11	05/12	05/13	05/16	05/17	05/18	05/19	05/20	TOTAL
<b>LEAVE - USED</b>											
VACATION											
SICK*											
HOLIDAY											
OTHER LEAVE - PAID											
OTHER LEAVE - UNPAID											
COMPENSATORY TIME TAKEN											
<b>WORK TASKS</b>											
1.0 ENGAGE THE PUBLIC	1	1	1	1	1	1	1	1	1	1	10.0
2.0 PLAN THE SYSTEM	2	2	2	2	2	2	2	2	2	2	20.0
2.C TRANSPORTATION DISADVANTAGED PLANNING											
3.0 PRIORITIZE FUNDING	2	2	2	2	2	2	2	2	2	2	20.0
4.0 IMPLEMENT PROJECTS	1	1	1	1	1	1	1	1	1	1	10.0
5.0 COLLABORATE WITH PARTNERS	2	2	2	2	2	2	2	2	2	2	20.0
6.0 ADMINISTER THE AGENCY											
8.0 AGENCY EXPENDITURES WITH TPA LOCAL FUNDS											
<b>TOTAL</b>	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	80.0
COMPENSATORY TIME EARNED											

I HEREBY CERTIFY THAT THE ABOVE EFFORTS HAVE BEEN EXPENDED BY THE UNDERSIGNED IN THE PERFORMANCE OF MY OFFICIAL DUTIES

  
SIGNATURE

05/20/22  
DATE

\_\_\_\_\_  
SUPERVISOR SIGNATURE

\_\_\_\_\_  
DATE

**EXPLANATION OF COMPENSATORY TIME EARNED**

Date Description of Work Performed

**LEAVE BALANCE SUMMARY**

	Start	Earned	Taken	Finish
Vac	53.54	3.69	0.00	57.23
Sick	32.00	4.00	0.00	36.00
Comp	0.00	0.00	0.00	0.00

Scheduled Work Hours 80

\*Sick time cannot be taken in the same pay period that comp time is earned.

**PALM BEACH TRANSPORTATION PLANNING AGENCY TIME SHEET  
FY 2022**

NAME: Valerie Neilson  
FROM: May 21, 2022  
Period Date

TITLE: Interim Executive Director  
TO: June 3, 2022  
Period Date

OVERTIME EXEMPT STATUS: YES X NO       

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	M	T	W	T	F	M	T	W	T	F	TOTAL
	05/23	05/24	05/25	05/26	05/27	05/30	05/31	06/01	06/02	06/03	
<b>LEAVE - USED</b>											
VACATION											
SICK*											
HOLIDAY						8					8.0
OTHER LEAVE - PAID											
OTHER LEAVE - UNPAID											
COMPENSATORY TIME TAKEN											
<b>WORK TASKS</b>											
1.0 ENGAGE THE PUBLIC	1	1	1	1	1		1	1	1	1	9.0
2.0 PLAN THE SYSTEM	2	2	2	2	2		2	2	2	2	18.0
2.C TRANSPORTATION DISADVANTAGED PLANNING											
3.0 PRIORITIZE FUNDING	2	2	2	2	2		2	2	2	2	18.0
4.0 IMPLEMENT PROJECTS	1	1	1	1	1		1	1	1	1	9.0
5.0 COLLABORATE WITH PARTNERS	2	2	2	2	2		2	2	2	2	18.0
6.0 ADMINISTER THE AGENCY											
8.0 AGENCY EXPENDITURES WITH TPA LOCAL FUNDS											
<b>TOTAL</b>	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	80.0
COMPENSATORY TIME EARNED											

I HEREBY CERTIFY THAT THE ABOVE EFFORTS HAVE BEEN EXPENDED BY THE UNDERSIGNED IN THE PERFORMANCE OF MY OFFICIAL DUTIES

  
SIGNATURE

06/03/2022  
DATE

\_\_\_\_\_  
SUPERVISOR SIGNATURE

\_\_\_\_\_  
DATE

**EXPLANATION OF COMPENSATORY TIME EARNED**

Date Description of Work Performed

**LEAVE BALANCE SUMMARY**

	Start	Earned	Taken	Finish
Vac	57.23	3.69	0.00	60.92
Sick	36.00	4.00	0.00	40.00
Comp	0.00	0.00	0.00	0.00

Scheduled Work Hours 80

\*Sick time cannot be taken in the same pay period that comp time is earned.

## TPA RESOLUTION 2022-XX

### **A RESOLUTION APPROVING TRAVEL FOR UP TO TWELVE (12) PARTICIPANTS TO ATTEND A PEER EXCHANGE FROM SEPTEMBER 29 TO 30, 2022 IN AUSTIN, TEXAS TO LEARN ABOUT THEIR MOBILITY AND ENHANCED TRANSIT PLANS AND FUNDING MECHANISMS**

**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**, pursuant to Task 8.A of the TPA's adopted Fiscal Year (FY) 21-22 Unified Planning Work Program (UPWP), the TPA shall maximize agency effectiveness by advocacy activities including TPA travel expenses, TPA staff time and peer exchanges; and

**WHEREAS**, pursuant to Goal 5.B of the TPA's adopted FY 22 Strategic Plan, the TPA shall conduct events on topics of interest; and

**WHEREAS**, the TPA wishes to take up to twelve (12) participants to Austin, Texas from September 29 to 30, 2022 to participate in a Peer Exchange to learn about their mobility and enhanced transit plans and funding mechanisms; and

**WHEREAS**, the TPA Interim Executive Director wishes to travel with up to seven (7) TPA Governing Board member(s) as designated by the full Board, one (1) Palm Beach County Administration representative, one (1) Palm Tran representative, one (1) South Florida Regional Transportation Authority (SFRTA)/Tri-Rail representative, and one (1) Economic Development Community representative; and

**WHEREAS**, pursuant to Section 2.5.B of the TPA's adopted Personnel Handbook, the TPA Governing Board Chair must authorize travel by the Executive Director, any Governing Board members, all committee members, and all community representatives in advance to be eligible for reimbursement by the TPA; and

**WHEREAS**, the TPA Governing Board must authorize travel by the TPA Governing Board Chair in advance to be eligible for reimbursement by the TPA.

**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 Governing Board hereby approves travel for the following individuals:

1. TPA Interim Executive Director
2. TPA Governing Board Chair or Delegate Board Member
3. TPA Governing Board Vice Chair or Delegate Board Member
4. TPA Governing Board Member
5. TPA Governing Board Member
6. TPA Governing Board Member
7. TPA Governing Board Member
8. TPA Governing Board Member
9. Palm Beach County Administration Representative
10. Palm Tran Representative
11. SFRTA/Tri-Rail Representative
12. Economic Development Community Representative

**SECTION 3.** The Governing Board directs TPA staff to publicly advertise the peer exchange event and meeting agenda on their website as dictated by the TPA's adopted Public Participation Plan (PPP) and in compliance with Florida's Sunshine Law.

**SECTION 4.** 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 June 2022.

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

By: \_\_\_\_\_  
Mayor Robert S. Weinroth, as its Chair

ATTEST:

\_\_\_\_\_  
Margarita Pierce, TPA Executive Administrator

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

\_\_\_\_\_  
Paul Gougelman, TPA General Counsel

**Palm Beach TPA Peer Exchange - Austin, TX****September 29 – 30, 2022****Draft Agenda****Thursday, September 29**

- 9:00 a.m. Kickoff Briefing** (Austin Chamber – 555 E 5<sup>th</sup>)  
Kickoff briefing with coffee and light refreshments, opening remarks by CapMetro Chair and CapMetro CEO.  
Following opening remarks and introductions, overview of CapMetro and the multi-billion-dollar Project Connect transit expansion program.
- 10:30 a.m. Building a Culture of Transit** (Austin Chamber – 555 E 5<sup>th</sup>)  
Discussion with CapMetro, Austin Transit Partnership, City of Austin executive staff, policymakers (board/elected), and transit advocates on the passage of Proposition A (Project Connect funding).  
Building a culture of transit in the sunbelt; how to get buy-in.
- 12:00 p.m. Project Connect Working Lunch** (Austin Chamber – 555 E 5<sup>th</sup>)  
Discussion with CapMetro, Austin Transit Partnership (ATP), City of Austin senior staff on the details of Project Connect as a program, timeline, and steps from concept to implementation.  
Catered lunch in Austin Chamber board room from a local restaurant.
- 2:00 p.m. Austin Field Trip 1** (Downtown Station – 209 E 4<sup>th</sup>)  
Meet in plaza adjacent to Downtown Station (MetroRail), discussion with CapMetro staff of placemaking near transit facilities.  
Red Line trip to Plaza Saltillo Station for walk around a TOD development with CapMetro planning staff, followed by Red Line trip further north to Crestview Station for further discussion of TOD, multimodal connections.
- 5:00 p.m. Delegation Dinner** (TBD )  
Return to Downtown Station for delegation dinner with Austin guests.



**Friday, September 30**

- 9:00 a.m.                      Building Community: Housing and Transit** (CapMetro - 700 Lavaca)  
Discussion with CapMetro, ATP, City of Austin senior staff and board members of economic development, working with private developers, debrief on TOD from previous day's tour, placemaking, designing transit systems and facilities for the customer and non-customer alike.
- 11:30 a.m.                      Strategy Lunch** (TBD – Downtown Austin)  
Discussion with policymakers, CapMetro senior staff, business leaders on Project Connect and transit expansion strategy, coalition-building. How to build a vision for transit projects (large and small) that inspires.
- 1:30 p.m.                      Austin Field Trip 2** (TBD – Delegation Hotel)  
Meet in front of delegation hotel for special bus trip up Project Connect light rail corridor with briefings from CapMetro and ATP senior staff.  
Tour CapMetro North Ops facility to see electric charging infrastructure, rail maintenance facility, Operations Control Center.  
Brief tour of CapMetro Red Line-adjacent Austin FC MLS stadium, including site of future infill station and discussion of P3s. Return to delegation hotel via special CapMetro bus.
- 5:00 p.m.                      Delegation Dinner** (TBD)



## TPA RESOLUTION 2022-XX

### **A RESOLUTION APPROVING AMENDMENT 4 TO THE FISCAL YEAR (FY) 2022-2026 TRANSPORTATION IMPROVEMENT PROGRAM (TIP); MAKING FINDINGS; PROVIDING FOR SEVERABILITY/INTERPRETATION; AND PROVIDING AN EFFECTIVE DATE.**

**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**, both 23 U.S.C. §134(j) and 23 CFR §450.326 mandate that the TPA develop and update a TIP at least every 4 years that reflects the investment priorities of the TPA's adopted Long Range Transportation Plan and covers a period of no less than 4 years; and

**WHEREAS**, the TPA's FY 22-26 TIP is a staged program encompassing a five-year period and including all regionally significant transportation improvements to all modes of travel in Palm Beach County as well as locally funded transportation improvement projects; and

**WHEREAS**, the TIP identifies projects for maintaining and improving the transportation system funded by federal, state and local sources in order to assist local governments with their transportation planning efforts; and

**WHEREAS**, the Florida Department of Transportation (FDOT) has requested approval of a modification to one (1) existing project and the addition of one (1) new project to the FY 22-26 TIP as shown in "Exhibit A" attached hereto.

**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 hereby approves Amendment 4 to the FY 22-26 Transportation Improvement Program, attached hereto as "Exhibit A" and by this reference incorporated herein, and authorizes its Executive Director to execute any and all corresponding documents to memorialize this approval. This amendment does not affect or re-adopt any other provision of the TIP.

**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 June 2022.

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

By: \_\_\_\_\_  
Mayor Robert S. Weinroth, as its Chair

ATTEST:

\_\_\_\_\_  
Margarita Pierce, TPA Executive Administrator

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

\_\_\_\_\_  
Paul R. Gougelman, TPA General Counsel



**2.A.2**  
**PALM BEACH**  
Transportation  
Planning Agency

# TRANSPORTATION IMPROVEMENT PROGRAM

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## FY 2022-2026

Proposed for Adoption  
June 16, 2022

Amendment #4

Requested amendment to  
modify 1 project and add  
1 new project

Phase	Fund Source	2022	2023	2024	2025	2026	Total
<b>EXISTING TIP</b>							
<b>I-95 AT BELVEDERE RD SB OFF RAMP - Proj# 4441211</b>					<b>Length: 0.46 MI</b>	<b>*SIS*</b>	
<b>Type of Work: PRELIMINARY ENGINEERING</b>					<b>Lead Agency: FDOT</b>		
					<b>LRTP#: SIS007</b>		
Description: PRELIMINARY ENGINEERING FOR SB OFF RAMP.							
RRU	SA	0	0	10,000	0	0	<b>10,000</b>
CST	SA	0	0	0	51,384	0	<b>51,384</b>
CST	ACNP	0	0	0	1,841,313	0	<b>1,841,313</b>
<b>Total</b>		<b>0</b>	<b>0</b>	<b>10,000</b>	<b>1,892,697</b>	<b>0</b>	<b>1,902,697</b>
<i>Prior Years Cost</i>		<i>529,415</i>	<i>Future Years Cost</i>		<i>Total Project Cost</i>		<i>2,432,112</i>

## PROPOSED TIP

<b>I-95 AT BELVEDERE RD SB OFF RAMP - Proj# 4441211</b>					<b>Length: 0.46 MI</b>	<b>*SIS*</b>	
<b>Type of Work: INTERCHANGE JUSTIFICA/MODIFICA</b>					<b>Lead Agency: FDOT</b>		
					<b>LRTP#: SIS007</b>		
Description: Lengthen off ramp auxiliary lane and widen off ramp shoulder pavement and includes pavement widening, milling and resurfacing, drainage, shoulder barrier walls, signing, pavement markings, and safety improvements (such as installation of high friction surface treatment, a wrong-way driving system, and advance warning system as vehicles approach exit ramp).							
CST	ARPA	0	2,031,592	0	0	0	<b>2,031,592</b>
CST	DIH	0	56,084	0	0	0	<b>56,084</b>
CST	DDR	0	81,757	0	0	0	<b>81,757</b>
<b>Total</b>		<b>0</b>	<b>2,169,433</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,169,433</b>
<i>Prior Years Cost</i>		<i>529,415</i>	<i>Future Years Cost</i>		<i>Total Project Cost</i>		<i>2,698,848</i>

PROPOSED TIP - NEW PROJECT

Phase	Fund Source	2022	2023	2024	2025	2026	Total
I-95 OFF RAMP TO WB PGA BLVD - FM# 4492801					Length: .902	*Non-SIS*	
Type of Work: SKID HAZARD OVERLAY					Lead Agency: FDOT		
Skid hazard overly - high friction surface, mill and resurface ramp locations, extend guardrail							
PE	ACSS	0	367,586	14,507	0	0	382,093
CST	ACSS	0	0	0	0	2,379,509	2,379,509
Total		0	367,586	14,507	0	2,379,509	2,761,602
Prior Years Cost			Future Years Cost			Total Project Cost	2,761,602



## Florida Department of Transportation

RON DESANTIS  
GOVERNOR

3400 West Commercial Boulevard  
Fort Lauderdale, FL 33309

JARED W. PERDUE, P.E.  
SECRETARY

April 25, 2022

Ms. Valerie Neilson, AICP  
Interim 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  
444121-1 SR-9/I-95 AT BELVEDERE RD; SOUTHBOUND OFF RAMP**

Dear Ms. Neilson:

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. The project is being advanced to Fiscal Year 2023 using American Rescue Plan Act (ARPA) funds for Construction phase.

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:

EXISTING	FM#	Project Title		Project Description	Project Length
	444121-1	SR-9/I-95 AT BELVEDERE RD.; SOUTHBOUND OFF RAMP		PRELIMINARY ENGINEERING FOR SB OFF RAMP	0.460 MI
	Phase	Fund	FY 2023		
	RRU	SA	0		
	CST	SA	0		
	CST	ACNP	0		
	TOTAL		0		

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<b>PROPOSED</b>	<b>FM#</b>	<b>Project Title</b>		<b>Project Description</b>	<b>Project Length</b>
	<b>444121-1</b>	I-95 AT BELVEDERE RD. SB OFF RAMP		PRELIMINARY ENGINEERING FOR SB OFF RAMP	1.375 MI
	<b>Phase</b>	<b>Fund</b>	<b>FY 2023</b>		
	<b>CST</b>	<b>ARPA</b>	<b>2,031,592</b>		
	<b>CST</b>	<b>DDR</b>	<b>81,757</b>		
	<b>CST</b>	<b>DIH</b>	<b>56,084</b>		
	<b>TOTAL</b>		<b>2,169,433</b>		

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

Sincerely,



Marsha Taylor  
Planning Specialist  
District Four

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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

JARED W. PERDUE, P.E.  
SECRETARY

May 20, 2022

Ms. Valerie Neilson, AICP  
Interim 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  
449280-1 NB I-95 OFF RAMP TO WB SR-786/PGA BLVD.**

Dear Ms. Neilson:

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 a new project has been added to the work program and needs to be reflected in the TIP. The project is being added with funds to be used for skid hazard overlay, mill and resurfacing four ramp locations, as well as extend and modify guardrail to meet current standards.

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:

PROPOSED	FM#	Project Title		Type of Work		Project Length
	449280-1	NB I-95 OFF RAMP TO WB SR-786/PGA BLVD.		SKID HAZARD OVERLAY		0.902 MI
	Phase	Fund	FY 2023	FY 2024	FY 2025	FY 2026
	PE	ACSS	367,586	14,507	0	0
	CST	ACSS	0	0	0	2,379,509
	TOTAL		367,586	14,507	0	2,379,509



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

Sincerely,



Marsha Taylor  
Planning Specialist  
District Four

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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

## TPA RESOLUTION 2022-XX

**A RESOLUTION APPROVING THE FISCAL YEAR (FY) 2023-2027 TRANSPORTATION IMPROVEMENT PROGRAM (TIP); AUTHORIZING THE TPA'S EXECUTIVE DIRECTOR TO APPROVE ADMINISTRATIVE TIP AMENDMENTS AND MODIFICATIONS; MAKING FINDINGS; PROVIDING FOR SEVERABILITY/INTEPRATION; AND PROVIDING AN EFFECTIVE DATE.**

**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**, both 23 U.S.C. §134(j) and 23 CFR §450.326 mandate that the TPA develop and update a TIP at least every 4 years that reflects the investment priorities of the TPA's adopted Long Range Transportation Plan and covers a period of no less than 4 years; and

**WHEREAS**, s. 339.175(8), Florida Statutes, mandates that the TPA develop and annually update a TIP that considers Florida's prevailing principles (preserve infrastructure, enhance economic competitiveness, and improve travel choices), is consistent with local comprehensive plans to the maximum extent feasible, and covers a period of no less than 5 years; and

**WHEREAS**, the TPA's FY 23-27 TIP is a staged program encompassing a five-year period and including all regionally significant transportation improvements to all modes of travel in Palm Beach County as well as locally funded transportation improvement projects; and

**WHEREAS**, the TIP is developed through a continuing, cooperative, comprehensive and coordinated effort involving the Florida Department of Transportation (FDOT), the Palm Beach County Board of County Commissioners, the Port of Palm Beach, the South Florida Regional Transportation Authority (SFRTA), and municipalities within the County; and

**WHEREAS**, the TIP identifies projects for maintaining and improving the transportation system funded by federal, state and local sources in order to assist local governments with their transportation planning efforts; and

**WHEREAS**, the TIP is based on and reflects FDOT's FY 23-27 Work Program for Palm Beach County and the planned transportation capital and operating expenditures of transit agencies and local governments within Palm Beach County, and generally moves forward the projects in the time frame from previous TIPs; and

**WHEREAS**, there is a three (3) month gap (July 1 to September 30) between the start of the State fiscal year (July 1) and the start of the Federal fiscal year (October 1) during which the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) still regard the old State Transportation Improvement Program (STIP) and TIPs as being in effect; and

**WHEREAS**, during the TIP cycle, locally funded projects may require modifications to remain consistent with local decisions; and

**WHEREAS**, the document narrative may require additional modifications to address federal and/or state agency review comments.

**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 hereby:

- a. Approves the FY 23-27 Transportation Improvement Program, attached hereto as “Exhibit A” and by this reference incorporated herein; and
- b. Authorizes the TPA Executive Director to:
  1. Approve administrative amendments to the FY 22-26 TIP during the three (3) month gap between July 1 and September 30, when FHWA and FTA still recognize the FY 22-26 TIP as being effect, so long as the project amendment is exactly as it appears in the FY 23-27 TIP;
  2. Approve administrative modifications (add/modify/delete) to locally funded projects in the FY 23-27 TIP to remain consistent with local decisions; and
  3. Approve administrative modifications to the document narrative in the FY 23-27 TIP to address errata and/or agency review comments.

**SECTION 3.** This Resolution shall take effect upon adoption.

[Remainder of this page left blank intentionally]

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 June 2022.

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

By: \_\_\_\_\_  
Mayor Robert S. Weinroth, as its Chair

ATTEST:

\_\_\_\_\_  
Margarita Pierce, TPA Executive Administrator

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

\_\_\_\_\_  
Paul R. Gougelman, TPA General Counsel



## TRANSPORTATION IMPROVEMENT PROGRAM

FY 2023-2027

First Draft - May 2022  
Scheduled for Adoption June 16, 2022

### EXECUTIVE SUMMARY



## **TRANSPORTATION IMPROVEMENT PROGRAM**

**FY 2023-2027**

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This Transportation Improvement Program was developed consistent with federal and state requirements. State and federally funded projects were approved by the Palm Beach TPA on June 16, 2022.

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TPA Chair Robert Weinroth, Palm Beach County - District 4

The preparation of this report was financed in part through grants from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation; the Florida Department of Transportation; and participating local governments. The contents of this report do not necessarily reflect the official views or policy of the U. S. Department of Transportation.

**301 Datura St, West Palm Beach, FL 33401**  
**561.725.0800**  
**[www.PalmBeachTPA.org](http://www.PalmBeachTPA.org)**

**FY 2023 – 2027  
TRANSPORTATION IMPROVEMENT PROGRAM  
PALM BEACH TPA**

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## EXECUTIVE SUMMARY

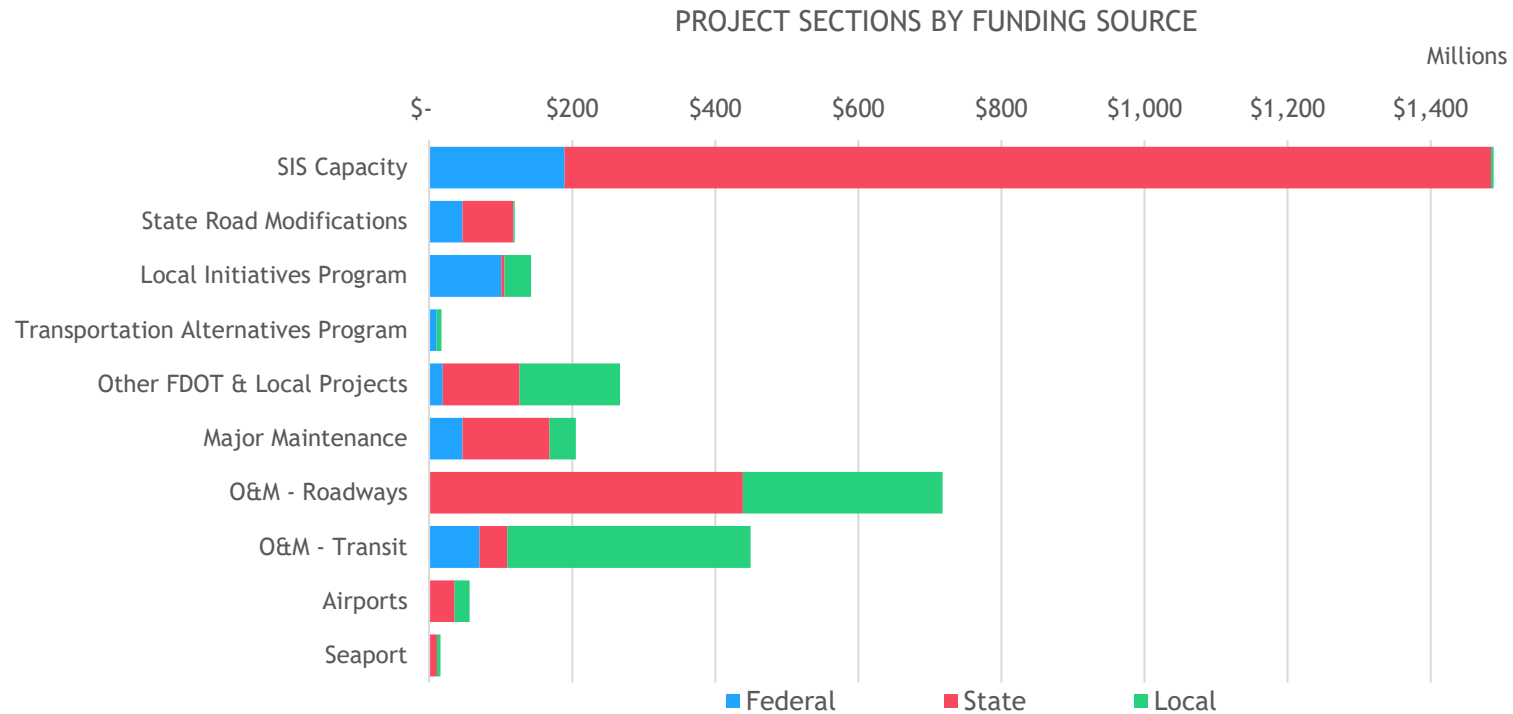
The Transportation Improvement Program (TIP) is the five-year funding program for transportation projects covering all modes of travel in Palm Beach County. The TIP is developed through a continuous, cooperative and comprehensive effort involving the Florida Department of Transportation (FDOT), the Board of County Commissioners, the Port of Palm Beach and municipalities within the County. The TIP was developed in cooperation with the public transit operators such as South Florida Regional Transportation Authority (SFRTA) and Palm Tran. Consultation is also carried out with the Miami-Dade TPO, the Broward MPO, the Martin County MPO, and the St. Lucie TPO during the TIP process. The document complies with the requirements set forth in Section 134 of Title 23, USC and 23 CFR 450.324.

The TIP identifies transportation improvements funded by federal, state and local sources. The TIP incorporates FDOT's Fiscal Year (FY) 23-27 Work Program along with local capital improvement plans and operating budgets, and generally moves forward the projects in the timeframe from previous TIPs. Please note that the identified projects may experience unforeseen changes and the TIP may be amended or modified throughout the year.

To provide continuity and ease of use, the projects in the TIP have been aggregated by section, as shown in the graph and table below.

<b>Project Section</b>	<b># of Projects</b>	<b>Funding</b>	<b>% of Total Funds</b>
SIS Capacity	37	\$1,488,020,385	40.97%
State Road Modifications	31	\$118,469,501	3.26%
Local Initiatives Program	24	\$124,714,931	3.43%
Transportation Alternatives Program	13	\$16,756,519	0.46%
Other FDOT & Local Projects	98	\$268,597,091	7.40%
Major Maintenance	87	\$255,965,507	7.05%
O&M - Roadways	99	\$718,019,813	19.77%
O&M - Transit	9	\$568,529,057	15.56%
Airports	24	\$56,760,774	1.56%
Seaport	2	\$15,800,000	0.44%
<b>TOTAL TIP FY 2023-2027</b>	<b>424</b>	<b>\$3,631,663,578</b>	<b>100%</b>





### **Time Frame**

This document includes a five-year implementation schedule for Fiscal Year 2023 through Fiscal Year 2027 following the federal fiscal calendar beginning October 1st and ending September 30th (i.e. Fiscal Year 2023 addresses the dates of October 1, 2022 to September 30, 2023). Projects utilizing state funds are based on a fiscal year beginning July 1st and ending June 30th.

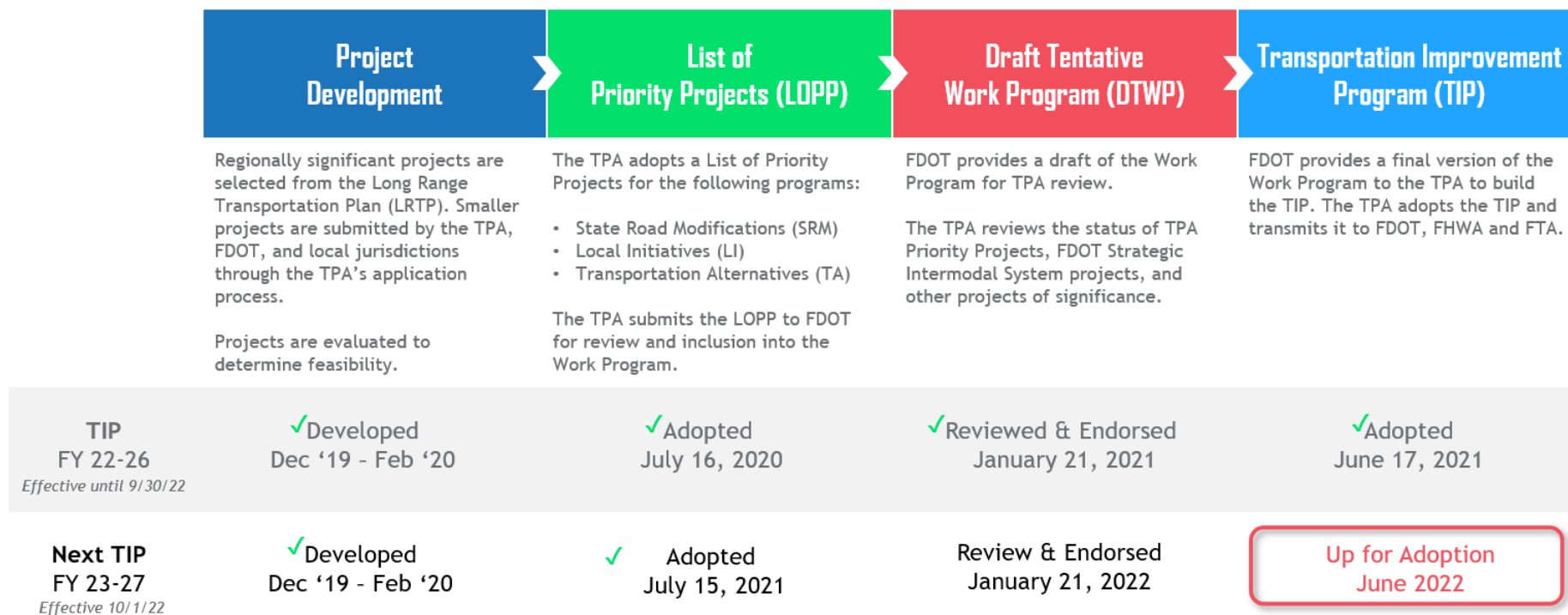
### **Certification Review**

The Palm Beach TPA undergoes a certification review process annually with FDOT and a quadrennial review with Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). The certification review process ensures the TPA is carrying out the metropolitan planning process in adherence with federal and state regulations. The last joint FHWA and FTA Certification Review was completed on October 28, 2019 and the next review is anticipated to be completed in August 2023. The last Joint State/TPA Certification Review was completed on February 28, 2022.

## Prioritization of Projects

The TIP includes specific investment projects that support the TPA's established goals in the adopted 2045 Long Range Transportation Plan (LRTP). State Road Modifications, Local Initiatives, and Transportation Alternatives are scored based on the goals of the LRTP and prioritized for inclusion in the TIP. Project selection is made in accordance with the requirements of 23 CFR 450.332.

The adopted LRTP is Cost Feasible; it prioritizes projects based on anticipated available revenue. The LRTP is referenced and seeks consistency with local comprehensive plans to the maximum extent feasible. The TPA adopted a list of Priority Projects from the LRTP in July and transmitted them to FDOT for use in preparing the tentative Work Program – these are included in Appendix B and highlighted in the summary of projects section. FDOT then developed the Draft Tentative Work Program and provided the program of projects for creation of the TIP. The TIP development process is seen in the diagram below. Major projects were screened through the State's Efficient Transportation Decision Making (ETDM) review process. This review provides for an early examination of the projects, allowing for timely and effective decision making and early National Environmental Policy Act (NEPA) reviews and approvals.



The LRTP Report Card, below, provides the implementation status breakdown of cost feasible projects identified in the adopted 2045 LRTP. The table summarizes projects by category, number of projects, and their status: underway or complete, programmed through construction in the TIP, programmed but no construction programmed in TIP, and not yet programmed. Specific projects are not identified for Local Initiatives, Transportation Alternatives, and Air, Rail & Sea in the LRTP.

Project Category	LRTP 2045 Cost Feasible Plan	Fiscal Year 23-27 TIP			Not Programmed
		Underway/ Complete	In TIP with CST Phase	In TIP w/o CST Phase	
SIS, Turnpike	40	2	15	15	11
State Road Modifications	25+	0	12	12	18
*Local Initiatives	N/A	20	19	0	5
*Transportation Alternatives	N/A	5	15	0	N/A
County, City, Private	85	7	19	6	53
*Air, Rail, Sea	N/A	N/A	31	0	N/A

\*N/A is noted because specific projects for the Local Initiatives, Transportation Alternatives, and Air, Rail and Sea categories are not indicated in the LRTP as line items.

### **Public Participation Process**

The public participation process for the Draft FY 2023-2027 TIP is in accordance with the policies and procedures of the TPA's Public Participation Plan. Appendix C provides detailed information on the schedule and outreach opportunities for the public to review the Draft FY 2023-2027 TIP. More information on the TPA's public participation process can be found at [palmbeachtpa.org/PPP](http://palmbeachtpa.org/PPP)

### **Congestion Management Process**

Projects and system-wide effectiveness for all modes of transportation are evaluated through the Congestion Management Process (CMP). A CMP is a systematic and regionally accepted approach for managing congestion that provides accurate, up-to-date information on transportation system performance and assesses alternative strategies for congestion management that meet TPA needs. The process is integrated into the TPA's performance measures that cover multiple modes of transportation including travel time reliability of people and trucks, transit v. car vehicle commute time, and walk, bike, transit commuter mode splits.

## PROJECT SECTIONS IN THE TIP

The projects in the TIP are presented in major categories that are explained in greater detail below.

**SIS Capacity** - Strategic Intermodal System projects are prioritized by FDOT to support regional mobility.

**State Road Modifications** - The TPA Governing Board annually prioritizes highway, transit, freight and additional projects on state roadways based on the Goals, Objectives and Values in the LRTP.

**Local Initiatives Program** - Lower cost, non-regionally significant projects submitted to the TPA annually by local agencies and prioritized using a project scoring system based on the goals, objectives and values in the LRTP and prioritized through the TPA Governing Board.

**Transportation Alternatives Program** - Active transportation projects submitted to the TPA annually by local agencies and prioritized through the TPA Governing Board.

**Other FDOT and Local Projects** - These projects are advanced by agencies other than the TPA with outside discretionary funding sources (e.g. local gas taxes, local impact fees, county incentive grant funds, highway safety program funds, etc.).

**Major Maintenance** - Projects proposed by the maintaining agencies based on the condition of the transportation infrastructure. These are larger projects representing an opportunity to enhance existing facilities through scope modifications or additions.

**O&M - Roadways** - Operations and maintenance projects proposed by the maintaining agencies based on the condition of the transportation infrastructure and the need to operate it efficiently.

**O&M – Transit** - Projects proposed by the transit agencies to continue to operate existing services.

**Airports, Railroads and Seaports** - Projects identified by facility owner/operators consistent with their respective master plans.

## FEDERAL PERFORMANCE MEASURES

Performance measures connects investment and policy decisions to achieve the goals adopted in the TPA's Long Range Transportation Plan (LRTP). The TPA's aim is to provide measures that use data-driven, quantitative criteria to set and analyze achievable targets. Using a performance-based method ensures the most efficient investment public funds by increasing accountability, transparency, and providing for better investment decisions geared towards specific outcomes. The TPA is required to adopt targets for established federal performance measures based on national goals enacted by Congress in Moving Ahead for Progress in the 21st Century (MAP-21). The TPA's adopted federal performance measures and targets are summarized in the table on the following page. Please refer to Appendix D for more information on the federal performance measures.

## Federal Performance Measures and Targets

Category	Performance Measure	TPA Target
Safety	Fatalities	Zero (2022)
	Serious Injuries	Zero
	Rate of Serious Injuries per 100M vehicle miles travelled (VMT)	Zero
	Rate of Fatalities per 100M VMT	Zero
	Nonmotorized Fatalities and Serious Injuries	Zero
System Performance	Percent of reliable person-miles traveled on the Interstate	≥ 85% (2022)
	Percent of reliable person-miles traveled on the non-Interstate NHS	≥ 93%
	Truck travel time reliability ratio (TTTR) on the Interstate	≤ 1.75
Bridges	Percent of NHS bridges classified as in Good condition by deck area	≥ 50% (2022)
	Percent of NHS bridges classified as in Poor condition by deck area	≤ 5%
Pavement	Percent of Interstate pavements in Good condition	≥ 60% (2022)
	Percent of Interstate pavements in Poor condition	≤ 5%
	Percent of non-Interstate NHS pavements in Good condition	≥ 40%
	Percent of non-Interstate NHS pavements in Poor condition	≤ 5%
Transit (Palm Tran)	Percent of Vehicles exceeding useful life	(2022)
<i>Vehicles</i>	Vehicles - Articulated Bus	≤ 0%
	Vehicles - Fixed Route Bus	≤ 0%
	Vehicles - Paratransit Bus	≤ 0%
	Vehicles - Paratransit Van	≤ 0%
<i>Equipment</i>	Percent of Equipment exceeding useful life	
	Equipment - Automobiles	≤ 0%
	Equipment - Trucks	≤ 0%
<i>Facilities</i>	Percent of Facilities exceeding useful life	≤ 0%
Transit (SFRTA)		
<i>Equipment</i>	Support & Maintenance Vehicles older than 8yrs	≤ 22%
	Other vehicles scoring lower than 2.5 (1-5 scale)	≤ 22%
<i>Rolling Stock</i>	Locomotives, Coach cars, self-propelled cars older than 39 yrs.	≤ 25%
	Bus (Cutaway) older than 10 yrs.	≤ 25%
<i>Infrastructure</i>	Rail fixed-guideway track with performance restrictions	≤ 3.5%
	Passenger terminals scoring lower than 2.5 (1-5 scale)	≤ 22%
	Maintenance facilities scoring lower than 2.5 (1-5 scale)	≤ 22%
	Administrative offices scoring lower than 2.5 (1-5 scale)	≤ 22%
Transit Safety (Palm Tran)	Fixed Route / Paratransit	Fixed Route/Paratransit
	Fatalities	Zero/Zero (2022)
	Fatality Rate per 100k vehicle revenue miles (VRM)	Zero/Zero
	Injuries	63/34
	Injury Rate per 100k VRM	0.9/0.4
	Safety Events	43/32
	Safety Event Rate per 100k VRM	0.6/0.3
	System Reliability (VRM per failure)	14,000/7,700

## SUMMARY OF PROJECTS

The following tables highlight the status of TPA Priority Projects, projects scheduled for construction in FY 2020, and new projects added by FDOT between the Adopted FY 21-25 TIP and the FY 22-26 TIP. A typical project includes a Project Development and Environment (PD&E) phase, a Design (PE) phase, a Right of Way (ROW) phase and a Construction (CST) phase. An explanation of all potential project phases included in the TIP is provided below.

### *Project Phases*

<b>CODE</b>	<b>NAME</b>
CAP	Capital
CST	Construction Scheduled
DSB	Design Build
ENV	Environmental
INC	Contract Incentives
MNT	Maintenance
MSC	Miscellaneous Construction Scheduled

<b>CODE</b>	<b>NAME</b>
OPS	Operations
PDE	Project Development and Environmental
PE	Preliminary Engineering Scheduled
PLN	Planning Scheduled
ROW	Right of Way Acquisition Scheduled
RRU	Railroad & Utilities

For a list of additional terms and their definitions, see Appendix A.

Table 1: State Road Modifications

Projects are predominantly on state roadways using state funding sources, including but not limited to District Dedicated Revenue (DDR) and Primary Highways & Public Transportation Funds (DS).  
Projected funding availability is approximately \$20.4 Million/year.

Shown in \$1,000s

Year - Rank	Applicant/ Lead Agency	Proj. No.	Location	Description	Total Cost	<FY 23	TIP FY 2023-2027						Addt'l Funds Needed	Notes	
							FY23		FY24		FY25				FY 26
04-1	FDOT	2296643 2296645 2296646	SR-7 from 60th St to Northlake Blvd	Construct new 4L road	\$72,772	\$68,727	CEI \$109	PE \$29	CST \$737					CST funding retained in FY22	
							PE \$228	ROW \$100	ENV \$2,841						
04-2	FDOT	2296644 2296647	SR-7 from Okeechobee Blvd to 60th St	Widen from 2L to 4L	\$24,897	\$24,793	CEI \$104							CST funding retained in FY22	
14-1	FDOT/ SFRTA	4170317	Tri-Rail: West Palm Beach to Jupiter	Extend commuter rail service onto the FEC corridor via the Northwood Crossover and construct 5 new stations – 45th St, 13th St, Park Ave, PGA Blvd, and Toney Penna Dr	\$109,507	\$1,157				PDE \$1,350			\$107,000	PDE Delayed FEC easement/ access fee and O&M commitment required	
14-3	FDOT	2296584	Atlantic Ave from SR-7 to E of Lyons Rd	Widen from 2L to 4L, including 7' bike lanes and 6' sidewalks	\$27,887	\$4,816	ROW \$6,580 CST \$150	ROW \$12 CST \$16,329							
16-1	FDOT	4405755 4405752 4405754	Atlantic Ave from W of Lyons Rd to Jog Rd	Widen from 4L to 6L, including 10'+ shared-use pathway	\$103,303	\$6,633		ROW \$2,808  PE \$94	ROW \$13,757  PE \$94	ROW \$2,174  CST \$4,099	ROW \$14,702		\$58,942	Reduce ROW at Jog Rd intersection, fully fund project. See TPA RESOLUTION 2021-15	
16-3	Lake Worth Beach/ FDOT	4400461	Lake Worth Rd from Erie St to A St	Construct Pedestrian enhancements, reconfigure traffic circle	\$1,792	\$536	CST \$1,255								
17-1	FDOT/ Palm Tran	4383861	US-1: Camino Real Rd to Indiantown Rd	561 Plan Transit Corridor: New enhanced transit service with associated multimodal facilities											
17-1a	Palm Tran	4383863	US-1: Palmetto Park Rd to Northlake Blvd	Implement Transit Signal Prioritization for entire corridor	\$2,000		CST \$2,000								
17-1b	Palm Tran/ FDOT	4383864 4464431	US-1: Palmetto Park Rd to Northlake Blvd	Construct 14 enhanced transit shelters within existing ROW	\$6,400		PE \$938	PE \$238		CST \$5,225					
17-1c	Boca Raton/ FDOT	4383865	US-1: Camino Real to NE 8th St/Mizner Blvd in Boca Raton	Lane Repurposing from 6L to 4L between Camino Real and SE Mizner Blvd; associated multimodal facilities	\$5,418			PE \$652	PE \$1,533				\$3,233		
17-1d	WPB/ FDOT	4383866	US-1: 25th St to 45th St in West Palm Beach	Reconstruct roadway to include pedestrian and bicycle facilities and safety enhancements	\$13,008			PE \$558	PE \$58	PE \$1,500			\$10,893	WPB coordinating with DOT and community on revised concept	

Table 1: State Road Modifications

Shown in \$1,000s

Year - Rank	Applicant/ Lead Agency	Proj. No.	Location	Description	Total Cost	<FY 23	TIP FY 2023-2027					Addt'l Funds Needed	Notes
							FY23	FY24	FY25	FY 26	FY 27		
17-1e	TPA/ FDOT	4383862	US-1: 59th St to Northlake Blvd in Riviera Beach and Lake Park	Reconstruct as 4L, add bike lanes and medians; move barrier wall on bridge to protect bike lanes;-add street lights/ped-scale lights where feasible	\$6,869	\$1,520			CST \$5,349				
17-1g	Lake Worth Beach/ FDOT	TBD	US-1: Dixie/Federal Junction to Gregory Rd in Lake Worth Beach	Lane Repurposing from 4L to 3L; associated multimodal facilities	\$5,674							\$5,674	LWB authorized traffic study
17-2	Boynton Beach/ FDOT	4440791	Boynton Beach Blvd from I-95 to US-1	Reconstruct: narrow vehicle lanes, construct 9' sidewalk on N, 15' shared use path on S, pedestrian lighting	\$7,489	\$884		CST \$6,577	CST \$29				
17-5	FDOT	4416321	Lake Worth Rd from Raulerson Dr to Palm Beach St College Ent	Resurfacing with separated bike lanes, new mid-block crossings, enhanced crosswalks	\$8,628	\$797	CST \$26						CST September 2022
18-1	TPA & Palm Tran /FDOT	4417581	Okeechobee Blvd from SR-7 to US-1; SR-7 from Forest Hill Blvd to Okeechobee Blvd	561 Plan Transit Corridor: New enhanced transit service with associated multimodal facilities									
18-1a	Palm Tran	4417582	Okeechobee Blvd from SR-7 to US-1; SR-7 from Forest Hill Blvd to Okeechobee Blvd	Implement Transit Signal Prioritization for entire corridor	\$1,000			CAP \$1,000					
18-1b	Palm Tran/ FDOT	4417583	Okeechobee Blvd from SR-7 to US-1; SR-7 from Forest Hill Blvd to Okeechobee Blvd	Construct 36 enhanced transit shelters within existing ROW	\$7,979				PE \$742	PE \$37		\$7,200	
18-2	FDOT	4417561 4417562	SR-80 from SR-15 to CR-880	Add street lighting	\$24,639	\$1,639	CST \$15,268			CST \$7,732			Uses LI Funds. PBC has signed maintenance commitment.
18-3	FDOT	4417571	US-27 Connector from US-27 to SR-715	Construct new 2L road	\$250	\$250							Study underway
19-1	TPA & Palm Tran /FDOT	TBD	Lake Worth Rd from SR-7 to US-1; SR-7 from Lake Worth Rd to Forest Hill Blvd	561 Plan Transit Corridor: New enhanced transit service with associated multimodal facilities									
19-1a	Palm Tran	TBD	Lake Worth Rd from SR-7 to US-1; SR-7 from Lake Worth Rd to Forest Hill Blvd	Implement Transit Signal Prioritization	\$1,000							\$1,000	
20-1	Boca Raton/ FDOT	4482641	Federal Hwy at Spanish River Blvd	Convert EB to SB right turn only to right/through with bike lane and mast arm conversion	\$1,715					PE \$279	PE \$21	\$1,415	



Table 1: State Road Modifications

Shown in \$1,000s

Year - Rank	Applicant/ Lead Agency	Proj. No.	Location	Description	Total Cost	<FY 23	TIP FY 2023-2027					Addt'l Funds Needed	Notes
							FY23	FY24	FY25	FY 26	FY 27		
20-2 & 20-4	Palm Beach County/ FDOT	4479441	Atlantic Ave at Military Trl; Belvedere at Military Trl; Forest Hill Blvd at I-95	Replace span wire traffic signals with mast arms and steel strain pole span wires and upgrade supporting infrastructure. Upgrade to mast arm signals; enhanced pedestrian signals and detection; upgrade ITS elements and roadway lighting; curb ramp and sidewalk upgrades to meet ADA.	\$11,095					PE \$147	PE \$18	\$9,985	
		4480731	US-1 at Silver Beach Rd, Military at Investment Ln, Okeechobee at Quadrille Blvd, Lakeview Ave at Quadrille Blvd							PE \$287	PE \$21		
		4481071	US-1 at SE 1st St, 7th Ave N, 10th Ave N, 13th Ave N; Boynton Beach Blvd at US-1, Congress Ave, Seacrest Blvd, Military Trl, Hagen Ranch Rd; Congress Ave at Dolan Rd; Atlantic Ave at Hamlet Dr; Lake Ave at SR-A1A (include w/ FM 4476631)							PE \$609	PE \$27		
20-3	Boca Raton/ FDOT	4480641	Glades Rd/SR-808 at Town Center Blvd; I-95 NB off ramp at W Palmetto Park Rd; I-95 SB off ramp at Palmetto Park Rd; US-1 at Royal Palm Way; US-1 at Hidden Valley Blvd	Replace span wire traffic signals with mast arms and upgrade supporting infrastructure	\$5,827					PE \$458	PE \$21	\$4,994	
		4481351	US-1 at Glades Rd, NE 15th Ter, and NE 24th Ter							PE \$329	PE \$24		
20-5	Palm Beach County/ FDOT	4479451	SR-715 from Hatcher Rd to Paul Rardin Park SR-715 from Airport Rd to SW 14th St	Construct 6' sidewalk on W side of roadway.	\$752					PE \$229	PE \$17	\$507	
20-6	TPA/ FDOT	4398451	SR-715 from SR-80 to W of Canal St South	Add buffered bicycle lanes, missing sidewalk connections to SR-80 and to PB State College entrance, and roadway lighting to resurfacing project.	\$5,661	\$983	CST \$4,678						\$1.16M added to supplement resurfacing
20-8	Lake Worth Beach/ FDOT	4461041	Lake Ave/Lucerne Ave/SR-802 from E of A St to E of Golfview Rd	Add stamped concrete crosswalks, replacement of sidewalk pavers, and improved stormwater drainage to resurfacing project.	\$5,548	\$324		CST \$5,224					\$200K added to supplement resurfacing
21-1	TPA/ FDOT	4498771	Forest Hill Blvd from W of Jog Rd to Military Trl	Add roadway lighting on N side and pedestrian lighting, bus bay layover facility, enhanced crosswalks at three signalized intersections, green markings in bicycle conflict zones	\$2,616						PE \$700	\$1,916	

Table 1: State Road Modifications

Shown in \$1,000s

Year - Rank	Applicant/ Lead Agency	Proj. No.	Location	Description	Total Cost	<FY 23	TIP FY 2023-2027					Addt'l Funds Needed	Notes
							FY23	FY24	FY25	FY 26	FY 27		
21-2	TPA/ FDOT	4498791	Congress Ave from Lake Worth Rd to Forest Hill Blvd	Add pedestrian lighting, enhanced crosswalks at six signalized intersections, and bus stop amenities	\$2,966						PE \$464	\$2,502	
21-3	Boca Raton/ FDOT	4495531 4498751	SR-A1A at Spanish River Blvd and Camino Real (include w/ FM 4476611); US-1 at Jeffery St, NE 32nd St, NE 20th St, Fire Station #1, NE Mizner Blvd, and Camino Real; Yamato Rd at NW 2nd Ave (include w/ FM 447657.1); Glades Rd at NW 2nd Ave and Pinehurst Ln; I-95 NB Ramp at Peninsula Corp Dr; I-95 SB Ramp at Peninsula Corp Dr	Replace span wire traffic signals with mast arms and steel strain pole span wires and upgrade supporting infrastructure	\$5,090						PE \$880	\$4,210	
21-4	TPA/ FDOT	4476701	SR-7 from Glades Rd to Bridgebrook Dr	Add shared use pathway on W side, sidewalk on E side (combine with FM 4479931), pedestrian lighting, and green markings in bicycle conflict zones to resurfacing project	\$11,382				CST \$7,549			\$3,832	FDOT to incorporate requested scope items
21-5	TPA/ FDOT	4358041 4476671	Boynton Beach Blvd from Congress Ave to E of I-95	Modify resurfacing project and interchange capacity project to provide wider sidewalks and separated bike lanes on both sides of roadway	\$57,807		ROW \$5,746	ROW \$12,898  CST \$2,300	CST \$36,705	CST \$159			FDOT incorporated requested scope items
21-6	FDOT		Indiantown Rd at Central Blvd	Conduct PD&E to evaluate congestion mitigation alternatives with minimal adverse impacts to pedestrians, bicycles, and local businesses	\$2,500							\$2,500	Funding not available for this project
Cost Summary					\$543,471	\$113,058	\$37,083	\$48,819	\$70,743	\$19,165	\$20,995	\$225,801	

Table 2: Local Initiatives Program

This program is for projects on non-state roadways that are federal-aid eligible. Sources of funding are from the approximately \$22.8 Million/year of the federal Surface Transportation Block Grant (STBG) program, known locally as SU funds, that is allocated to the TPA for prioritization. STGB funds allocated to FDOT, known as SA, sometimes supplement the projects.

Shown in \$1,000s

Year - Rank	Applicant/ Lead Agency	Proj. No.	Location	Description	Total Cost	< FY 23	TIP FY 2023-2027					Addt'l Funds Needed	Notes
							FY 23	FY 24	FY 25	FY 26	FY 27		
--	Palm Beach TPA	4393253 4393254 4393255	Surface Transportation (SU) funds to support TPA Planning & Administration as outlined in greater detail in the UPWP		\$18,829		PL \$1,852 SU \$1,733	PL \$1,852 SU \$1,820	PL \$1,852 SU \$1,911	PL \$1,852 SU \$2,006	PL \$1,852 SU \$2,100		
13-6	Palm Tran	4317611	Palm Tran system-wide	Implement Fare Technology, Regional Interoperability	\$5,325	\$5,325							Completed 2021
14-3	Riviera Beach/ FDOT	4383841	Australian Ave from 1st St to Blue Heron Blvd	Construct pedestrian scale lighting	\$3,463	\$3,463							Under Construction Exp Complete Spring 2023
14-6	SFRTA	4297671	Tri Rail Northern Layover Facility: CSX tracks E of I-95 in Mangonia Park/WPB	Construct new facility to enhance O&M for existing system and support Jupiter extension	\$40,733	\$36,150	DSB \$4,583						Tri-Rail advertised for Design. Proposals due in Jun 2022.
15-1	Lake Worth Beach	4420941	Boutwell Rd from Lake Worth Rd to 10th Ave N	Add turn lanes and other operational improvements	\$3,100	\$3,100							
15-2	West Palm Beach	4383901	West Palm Beach: 25th St to Tri-Rail Station to SR 80	Purchase seven (7) vehicles to support new N/S trolley service	\$1,505	\$1,505							Implementation in FY 2023
15-3	Palm Tran	4383921	Various locations along existing Palm Tran bus routes	Construct 30 transit shelters	\$600	\$600							Implementation in FY 2023
15-4	West Palm Beach	4383961	Various locations along existing WPB trolley lines	Construct seven (7) trolley shelters	\$571	\$571							Implementation in FY 2023
15-5	Delray Beach/ FDOT	4383941	Homewood Blvd from Old Germantown Rd to Lowson Blvd	Install designated bike lanes and sidewalks	\$2,920	\$2,920							Under Construction Exp Complete Dec 2022
15-6	Delray Beach/ FDOT	4383951	George Bush Blvd from NE 2nd Ave to A1A (excluding Intracoastal Waterway bridge)	Widen to provide two 10' travel lanes, 5' designated bike lanes and 5-6' sidewalks. Add street lighting and drainage.	\$4,071	\$4,071							Under Construction Exp Complete Mar 2023
16-3	Delray Beach/ FDOT	4400431	Brant Bridge over C-15 Canal in Delray Beach	Replace bridge and install 10' shared use paths	\$2,713	\$2,713							Under Construction Exp Complete Aug 2022
17-1 & 17-5	West Palm Beach/ FDOT	4415701	36th St & bridge from Australian Ave to Poinsettia Ave in West Palm Beach	Construct buffered bike lanes, pedestrian enhancements and bridge	\$6,523	\$1,323		CST \$5,183	CEI \$17				
17-2	Delray Beach	4415331	Lindell Blvd from Linton Blvd to Federal Hwy/US 1	Construct sidewalks and separated bike lanes	\$12,143		CST \$12,143						
17-3	Jupiter	4415721	Indiantown Rd from US 1 to A1A	Construct 4' designated bike lanes and 10' shared use path	\$431								Project cancelled
17-4	Palm Tran	4415711	Various Palm Tran bus stops	Replace 40 transit shelters	\$800								Implementation in FY 2023

**Table 2: Local Initiatives Program**

*Shown in \$1,000s*

Year - Rank	Applicant/Lead Agency	Proj. No.	Location	Description	Total Cost	< FY 23	TIP FY 2023-2027					Addt'l Funds Needed	Notes
							FY 23	FY 24	FY 25	FY 26	FY 27		
17-6	Delray Beach	4415321	Barwick Rd from Atlantic Ave to Lake Ida Rd	Construct sidewalks and separated bike lanes	\$10,446		CST \$10,446						
17-7	Delray Beach	4415861	Brant Bridge connector from Lindell Blvd to Brant Bridge	Construct sidewalks and separated bike lanes	\$2,540	\$5			CST \$2,535				
18-1	Westgate CRA/ Palm Beach County	4443711	Westgate Ave from Wabasso Dr to Congress Ave	Lane repurposing from 5L to 3L to add designated bike lanes and widen sidewalks	\$4,832								Project pending CRA loan approval
18-2	West Palm Beach	4443761	Parker Ave from Forest Hill Blvd to Nottingham Blvd	Construct buffered/separated bicycle lanes and pedestrian lighting	\$7,408	\$5	CST \$5,760	CST \$1,642					
18-3	Palm Beach County	4443701	Lyons Rd/ Sansbury Way from Forest Hill Blvd to Okeechobee Blvd	Construct separated bicycle lanes	\$6,096								CST Summer 2022
18-5	Boca Raton	4443791	Yamato Rd: W of Jog to I-95, and 16 Intersections in the downtown area	Install Adaptive Traffic Control Systems	\$2,625								CST Summer 2022
18-6	Delray Beach	4443771	Germantown Rd from Old Germantown Rd to Congress Ave	Construct sidewalks and separated bike lanes	\$11,635	\$5		CST \$500	CST \$11,130				
19-1	Palm Tran	4460981	Palm Tran electric buses and Palm Tran Maintenance Facility (Electronics Way) charging stations	Purchase 3 electric buses and install electric charging at maintenance facility	\$4,336			CAP \$4,336					
19-2	Palm Beach County	4460861	Cresthaven Blvd from S Jog Rd to S Military Trl	Construct 7' buffered bike lanes and three intersection modifications	\$4,603		PE \$5		CST \$4,598				
19-3	Palm Beach/Palm Beach County	4460881	Royal Poinciana & Cocoanut Royal Poinciana & South County Royal Palm & Cocoanut Royal Palm & South County	Connect 4 signals to Palm Beach County traffic signal network	\$445								Project cancelled
19-4	West Palm Beach	4460901	25th St from Australian Ave to Broadway Ave	Lane Repurposing from 4 lanes to 3, construct R/R gate enhancements, ADA upgrades, buffered bike/designated bike lanes, lighting, sidewalks	\$7,038		PE \$5		CST \$7,033				
19-5	Loxahatchee Groves/Palm Beach County	4460921	Okeechobee Blvd at Folsom Rd	Construct roundabout and sidewalks/lighting	\$1,438			CST \$1,438					
19-6	Wellington	4460821	Greenview Shores Blvd from Binks Forest Dr to Wellington Tr	Construct 4' designated bike lanes	\$1,258		PE \$5		CST \$1,253				

Table 2: Local Initiatives Program

Shown in \$1,000s

Year - Rank	Applicant/ Lead Agency	Proj. No.	Location	Description	Total Cost	< FY 23	TIP FY 2023-2027					Addt'l Funds Needed	Notes
							FY 23	FY 24	FY 25	FY 26	FY 27		
20-1	Palm Tran	4482951	Palm Tran electric buses & Palm Tran Maintenance Facility (Electronics Way) charging stations	Purchase 4 electric buses and install electric charging at maintenance facility	\$5,000						CAP \$5,000		
20-2	SFRTA	4481031	SFRTA - Tri-Rail Service	Purchase one (1) passenger rail car	\$5,000					CAP \$5,000			
20-3	Lake Worth Beach	4483541	South East Coast Street and S. H Street	Reconstruct roadways to one-way pair with 4' designated bike lanes	\$7,889				PE \$5		CST \$7,884		
20-4	Wellington	4482991	Greenbriar Blvd from Aero Club Drive to Greenview Shored Blvd.	Construct 4' designated bike lanes	\$2,453			PE \$5		CST \$2,421			
20-5	Wellington	4483061	C-2 Canal from Greenview Shores Blvd to Bent Creek Rd	Construct 10' shared use pathway	\$616			PE \$5		CST \$549			
20-6	Royal Palm Beach	4483051	Various Locations - Residential Roads	Construct ADA Improvements - Sidewalks and Curb Ramps	\$671			PE \$5		CST \$666			
21-1	SFRTA	4498501	SFRTA - Tri-Rail Service	Purchase one (1) passenger rail car	\$2,500						CAP \$2,500		
21-2	Palm Beach County	4498471	Prosperity Farms from 800' N of Northlake Blvd to Donald Ross Rd	Construct 4' designated bike lanes	\$7,700			PE \$5		CST \$2,447	CST \$3,528		
21-3	ITID	TBD	Temple Blvd from Seminole Pratt to 140th; Hall Blvd from Keylime to Northlake Blvd; 140th Ave N from Orange Blvd to Temple Blvd	Construct 10' unpaved pathways and widen sidewalks	\$3,335							\$3,335	Insufficient LI Funding
21-4	West Palm Beach	TBD	Mercer Ave from Australian Ave to Centrepark Blvd	Construct 10' shared use paths, designated bike lanes, and missing sidewalks	\$6,642							\$6,642	Insufficient LI Funding
Cost Summary					\$210,233	\$61,756	\$36,533	\$16,792	\$30,333	\$14,941	\$22,864	\$9,977	

Table 3: Transportation Alternatives Program

This program is for non-motorized projects on or off the federal-aid eligible network. Sources of funding are from the approximately \$3.1 Million/year of the federal STBG Transportation Alternatives (TA) set-aside program, known locally as TA, that is allocated to the TPA for prioritization.

Shown in \$1,000s

Year Rank	Applicant/Lead Agency	Proj. No.	Location	Description	Total Cost	< FY 23	TIP FY 2023-2027					Addt'l Funds Needed	Notes
							FY 23	FY 24	FY 25	FY 26	FY 27		
16-2	West Palm Beach/ FDOT	4400151	North Shore Bridge in West Palm Beach	Construct pedestrian bridge west of existing roadway bridge	\$1,289	\$423		CST \$927					
19-1	Westgate CRA/ Palm Beach County	4460771	Seminole Blvd from Okeechobee Blvd to Oswego Ave	Construct 10-12' shared use paths, high visibility crosswalks, and pedestrian lighting	\$1,645	\$5	CST \$1,640						
19-2	Boynton Beach	4460781	SE 1st St from Boynton Beach Blvd to Woolbright Rd	Construct 10' shared use path on western side of roadway	\$3,247	\$5	CST \$3,242						
19-3	Loxahatchee Groves/Palm Beach County	4460801	Okeechobee Blvd from A Rd to Folsom Rd	Construct 6' unpaved path with fence on south side of roadway	\$190	\$5		CST \$1,185					
19-4	Palm Beach Gardens	4460841	Various existing pedestrian crossings	Install pedestrian activated flashers at 12 existing crossings	\$412	\$5	CST \$407						
20-1	Lake Worth Beach	4483011	Various Locations - Local Roads	Construct ADA Curb Ramps and Sidewalk	\$1,095	\$5		CST \$1,090					
20-2	Palm Beach Gardens	4483021	Kyoto Gardens Drive from Military Trail to Alt A1A	Construct 5' bike lane and 8' pathway on north side of roadway	\$1,203	\$5	CST \$1,015						
20-3	Westgate CRA/ Palm Beach County	4483031	Cherry Rd from Military Trl to Quail Dr	Construct 10-12' shared use path and pedestrian lighting on north side of roadway	\$1,889			CST \$1,889					
20-4	Palm Tran	4483041	Countywide - 110 bus stops	Install 5' sidewalk connections and ADA bus stop enhancements	\$281			CAP \$281					
21-1	Palm Beach Gardens	4490051	Burns Rd from Military Trl to Alt A1A	Construct 9.5' separated two-way bicycle track	\$1,405		PE \$5		CST \$1,400				
21-2	Boca Raton	4489991	El Rio Trail from Glades Rd to Yamato Rd	Install lighting	\$1,274		PE \$5		CST \$1,269				
21-3	ITID	4490021	Grapeview Blvd from Key Lime Blvd to 60th St and Key Lime Blvd from Hall to M-1 Canal	Construct 10' shared use path and 8' pathway	\$1,663		PE \$5		CST \$1,658				
21-4	Wellington	4490061	C-8 Canal from Forest Hill Blvd to Stribling Way	Construct 10' shared use path	\$739		PE \$5		CST \$734				
Cost Summary					\$16,332	\$453	\$6,324	\$5,372	\$5,061				

**Table 4: Other FY 2023 Construction/Implementation Projects**

Project Number	Location	Description	5-YR Total Cost
4192511	BEELINE HWY/SR-710 FROM NORTHLAKE BLVD TO BLUE HERON BLVD/SR-708	Widen from 4 lanes to 6 lanes.	\$155,792,473
4461021	SR-15 FROM N OF 1ST ST TO PALM BEACH/MARTIN COUNTY LINE	Resurfacing	\$16,121,438
4443401 4369631	I-95 AT 6TH AVE S	Reconstruct interchange (add lanes) to increase capacity.	\$14,949,652
20239905	LYONS RD FROM S OF FLAVOR PICT RD TO BOYNTON BEACH BLVD	Widen to 4 lanes, add designated bike lanes	\$12,000,000
4428911	US-1 OVER EARMAN RIVER BRIDGE	Replacement of existing bridge, including sidewalks	\$9,965,705
4397581	I-95 AT INDIANTOWN RD	Reconstruct and signalize I-95 NB off ramp	\$7,972,406
4461771	SR-7/US-441 FROM NORTH OF SOUTHERN BLVD/SR-80 TO OKEECHOBEE BLVD/SR-704	Resurfacing	\$7,088,993
20175152	60TH ST N FROM AVOCADO BLVD TO E OF 120TH AVE N	Widen to 3 lanes	\$6,000,000
4398451	SR-715 FROM SR-80 TO W OF CANAL ST SOUTH	Resurfacing	\$4,658,284
4417551	US-1/SR-5 FROM BROWARD COUNTY LINE TO SPANISH RIVER BLVD	ATMS deployment on US-1 in Southern Palm County. Part of TSM&O Master Plan.	\$4,583,800
4461012	SR-80/US-98 FROM EAST OF PARKER AVE TO WEST OF WASHINGTON RD	Bridge Deck Expansion Joint Rehab and Resurfacing	\$4,441,394
4457691	A1A / BLUE HERON BLVD OVER INTRACOASTAL WATERWAY	Partial deck replacement. Bridge #930269	\$4,156,094
20239901	KIRK RD FROM SUMMIT BLVD TO GUN CLUB RD	Widen to 3 and 5 lanes	\$3,950,000
4461001	SR-80 FROM SR-25/US-27 TO EAST OF GLADES GLEN DR	Resurfacing	\$3,861,549
4460971	BEELINE HWY/SR-710 FROM E OF PRATT & WHITNEY TO E OF RAILROAD TRACKS	Resurfacing	\$3,439,416
20229917	GUN CLUB RD FROM FOREST ESTATES DR TO LWDD E-3 CANAL	Widen to 3 lanes.	\$3,320,000
4331093	I-95 FROM BROWARD COUNTY LINE TO LINTON BLVD - EXPRESS LANES	Bold landscape for Palmetto Park Rd Interchange, Spanish River Blvd Interchange, and Yamato Road/SR-794 Interchange	\$3,236,864
4407051	PORT OF PALM BEACH UPLAND CARGO IMPROVEMENTS	Demolish existing obsolete office building and adjacent parking lot and redevelop as refrigerated container laydown area.	\$2,800,000
2017517	FLORIDA MANGO RD FROM S OF BARBADOS RD TO MYRICA RD	Widen to 3 lanes, includes LWDD L-7 Canal Culvert Replacement	\$2,600,000
4397591	I-95 AT BELVEDERE RD NB	Add a second NB to EB off-ramp.	\$2,440,470

Table 5: New FDOT Projects

Shown in \$1,000s

Lead Agency	Proj. No.	Location	Description	Total Cost	< FY 23	TIP FY 2023-2027					Notes
						FY 23	FY 24	FY 25	FY 26	FY 27	
FDOT	4484151	US-1 from Belvedere Rd to Lakeview Ave	Resurfacing	\$2,500		PE \$334	PE \$14		CST \$2,153		
FDOT	4484171	A1A from N of Ibis Way to S of Southern Blvd	Resurfacing	\$2,637		PE \$288	PE \$15		CST \$2,334		
FDOT	4484351	S Dixie Highway E from RCA Blvd to N of Donald Ross Road	Resurfacing	\$9,816		PE \$1,094	PE \$60		CST \$8,623	CEI \$39	
FDOT	4484361	Lake Worth Rd from W of Cypress Edge Dr to W of Cypress Isles Way	Resurfacing	\$2,324		PE \$329	PE \$13		CST \$1,983		
FDOT	4484371	Boynton Beach Blvd from Orchid Grove Trail to W of Palm Isles Dr	Resurfacing	\$2,090		PE \$361	PE \$25		CST \$1,654	CEI \$50	
FDOT	4492791	Okeechobee Blvd from Riverwalk Blvd to Jog Road	Add and upgrade street lighting	\$309		PE \$92			CST \$217		
FDOT	4492831	Atlantic Ave at Homewood Blvd, Okeechobee Blvd at Haverhill	Traffic Signal Upgrade	\$5,074		PE \$413	PE \$35		CST \$4,574	CEI \$53	
FDOT	4493181	Bridge from 6th Ave S to Lake Worth Rd	Bridge Repair	\$9,273				CST \$9,273			
FDOT	4493471	Congress Ave at 10th Ave North	Traffic Signal Upgrade	\$323		PE \$323					
FDOT	4502131	I-95 and W Atlantic Ave	Landscaping	\$2,720			CST \$2,720				
				\$37,065		\$3,233	\$2,881	\$9,273	\$21,537	\$141	



## FUNDING SUMMARY

The TIP is financially constrained for each fiscal year. Federally funded projects identified in the TIP can be implemented using current proposed revenue sources based on the FDOT Tentative Work Program and locally dedicated transportation revenues. All Projects funded by FDOT with federal or non-federal dollars are included in a balanced 36-month forecast of cash and expenditures and a five-year finance plan supporting the FDOT Work Program. All local government projects (non-federally funded) that are included in the TIP are part of member local government's capital improvement programs. The following table provides a summary of federal, state and local funding codes as well as the dollar amounts allocated to projects within each funding code by fiscal year. Note that all project costs are shown in year of expenditure dollars, meaning the costs reflect the adjusted value of the work at the time the funds will be expended on the project.

**Total Programmed by Funding Code**

Fund Code / Name		2023	2024	2025	2026	2027	Total
<b>Federal</b>							
<b>NATIONAL HIGHWAY PERFORMANCE PROGRAM (NHPP)</b>							
ACNP	AC NATIONAL HWY FUNDS	73,524,095	29,535,522	23,380,162	28,606,021	20,103,050	175,148,850
ACNR	AC NATIONAL HWY RESURFACING	9,243,035	11,730,081	12,985,717	-	-	33,958,833
<b>SURFACE TRANSPORTATION BLOCK GRANT (STBG) PROGRAM</b>							
GFSU	GENERAL FUND - STPBG >200K (Urban)	10,143,671	-	-	-	-	10,143,671
SA	STP, ANY AREA STATEWIDE	7,630,952	10,843,302	2,326,261	1,022,233	-	21,822,748
SU	STP, PALM BEACH MPO	18,731,683	16,928,570	18,450,009	18,294,954	17,865,077	90,270,293
TALT	TRANSPORTATION ALTS- ANY AREA STATEWIDE	1,641,082	2,284,213	1,919,558	-	-	5,844,853
TALU	TRANSPORTATION ALTS PALM BEACH MPO	1,519,039	1,513,546	1,519,462	-	-	4,552,047
<b>HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)</b>							
ACSS	ADVANCE CONSTRUCTION (SS,HSP)	2,839,050	2,305,114	1,798,415	9,481,430	52,727	16,476,736
<b>OTHER FEDERAL PROGRAMS</b>							
ACFP	AC NATIONAL FREIGHT PROG (NFP)	-	-	1,115,000	11,352,888	-	12,467,888
ACBR	AC FED BRIDGE FUNDS	2,827,305	386,730	-	-	-	3,214,035
CM	CONGESTION MITIGATION FOR AIR QUALITY	370,465	538,019	73,013	-	-	981,497
FAA	FEDERAL AVIATION ADMIN	300,000	-	-	-	-	300,000
<b>FEDERAL TRANSIT ADMINISTRATION</b>							
5307	FEDERAL TRANSIT URBAN AREA FORMULA FUNDS	15,187,500	15,187,500	15,187,500	15,348,000	16,348,000	77,258,500
5311	FEDERAL TRANSIT RURAL AREA FORMULA FUNDS	328,580	333,180	328,968	369,052	374,641	1,734,421
5339	FTA BUS & BUS FACILITIES INFRASTRUCTURE	1,900,000	1,900,000	1,900,000	600,000	600,000	6,900,000
ARPA	AMERICAN RESCUE PLAN ACT	2,086,445	-	-	-	-	2,086,445
GFBR	GENERAL FUND - BRIDGE REPAIR	7,300,300	-	-	-	-	7,300,300
PL	PLANNING FUNDS	2,819,022	2,480,796	2,522,914	2,565,873	2,565,873	12,954,478
<i>Federal Subtotal</i>		<i>158,392,224</i>	<i>95,966,573</i>	<i>83,506,979</i>	<i>87,640,451</i>	<i>57,909,368</i>	<i>483,415,595</i>

**Total Programmed by Funding Code**

Fund Code / Name		2023	2024	2025	2026	2027	Total
<b>State</b>							
BNIR	INTRASTATE R/W & BRIDGE BONDS	13,878,128	11,965,439	-	-	-	25,843,567
BRRP	STATE BRIDGE REPAIR & REHAB	9,345,892	-	9,152,542	396,784	-	18,895,218
CIGP	COUNTY INCENTIVE GRANT PROGRAM	459,353	326,616	533,749	-	-	1,319,718
D	UNRESTRICTED STATE PRIMARY	20,797,542	21,223,525	19,617,888	19,852,059	19,489,577	100,980,591
DDR	DISTRICT DEDICATED REVENUE	57,004,826	54,731,462	57,074,681	39,444,618	34,575,797	242,831,384
DI	ST. - S/W INTER/INTRASTATE HWY	9,088,822	-	-	12,108,896	111,320,213	132,517,931
DIH	STATE IN-HOUSE PRODUCT SUPPORT	2,860,971	2,368,275	2,223,708	1,028,728	839,255	9,320,937
DIS	STRATEGIC INTERMODAL SYSTEM	-	-	8,361,630	-	-	8,361,630
DITS	STATEWIDE ITS - STATE 100%.	1,585,024	3,667,723	1,681,552	1,731,998	1,378,157	10,044,454
DPTO	STATE - PTO	9,571,295	11,814,419	22,190,564	950,704	98,052	44,625,034
DS	STATE PRIMARY HIGHWAYS & PTO	17,249,799	14,046,859	556,816	1,396,046	2,656,293	35,905,813
PKBD	TURNPIKE MASTER BOND FUND	-	208,046,011	176,785,751	-	194,598,754	579,430,516
PKYI	TURNPIKE IMPROVEMENT	41,981,360	114,157,856	151,294,691	145,673,954	12,221,168	465,329,029
PKYO	TURNPIKE TOLL COLLECTION/OPER.	54,716,207	57,716,207	54,716,207	57,716,207	54,716,207	279,581,035
PORT	SEAPORTS	1,400,000	-	-	-	-	1,400,000
SCRC	SMALL COUNTY OUTREACH PROGRAM - RURAL	1,059,685	-	-	-	-	1,059,685
SIWR	2015 SB2514A-STRATEGIC INT SYS	-	-	175,000	-	2,666,557	2,841,557
STED	2012 SB1998-STRATEGIC ECON COR	54,583,767	-	26,064,000	11,190,000	55,594,091	147,431,858
TDTF	TRANS DISADV - TRUST FUND	3,424,322	3,450,516	3,466,233	3,475,663	3,475,663	17,292,397
TMBD	I-95 EXPRESS LANES	-	1,451,696	725,848	725,848	725,848	3,629,240
TOBD	I-95 EXPRESS LANES	-	700,000	700,000	-	700,000	2,100,000
TRIP	TRANS REGIONAL INCENTIVE PROGM	-	-	-	3,664,806	-	3,664,806
TRWR	TRIP, WHEELS ON THE ROAD	-	2,168,194	-	1,027,788	-	3,195,982
<i>State Subtotal</i>		<i>299,006,993</i>	<i>507,834,798</i>	<i>535,320,860</i>	<i>300,384,099</i>	<i>495,055,632</i>	<i>2,137,602,382</i>

**Total Programmed by Funding Code**

Fund Code / Name		2023	2024	2025	2026	2027	Total
<b>Local</b>							
ADR	ADVERTISING REVENUE	725,000	725,000	725,000	725,000	725,000	3,625,000
ADV	AD-VALOREM	56,485,118	57,823,856	59,227,668	60,694,488	40,307,890	274,539,020
BOCA	BOCA RATON	375,000	375,000	375,000	375,000	375,000	1,875,000
CENW	CENTURY WEST	375,000	375,000	375,000	375,000	375,000	1,875,000
FBR	FAREBOX REVENUE	12,162,929	12,357,888	12,556,746	9,113,000	12,415,000	58,605,563
LGT	LOCAL OPTION GAS TAX	97,121,585	92,764,890	78,275,179	66,300,422	34,057,450	368,519,526
IF	IMPACT FEE	29,536,800	17,087,000	12,900,000	2,750,000	-	62,273,800
IST	INFRASTRUCTURE SUR TAX	18,059,034	13,603,175	27,884,000	9,802,000	23,930,000	93,278,209
LF	LOCAL FUNDS	48,316,118	20,891,963	54,167,571	13,891,981	3,232,504	140,500,137
LST	LOCAL SALES TAX	1,350,000	-	-	-	-	1,350,000
MF	MOBILITY FEE	-	140,000	437,146	-	-	577,146
PRV	PRIVATE FUNDS	267,200	-	-	-	-	267,200
RTA	SFRTA	666,000	666,000	666,000	666,000	666,000	3,330,000
<i>Local Total</i>		<i>265,439,784</i>	<i>216,809,772</i>	<i>247,589,310</i>	<i>164,692,891</i>	<i>116,083,844</i>	<i>1,010,615,601</i>

<b>Summary</b>							
Federal		158,392,224	95,966,573	83,506,979	87,640,451	57,909,368	483,415,595
State		299,006,993	507,834,798	535,320,860	300,384,099	495,055,632	2,137,602,382
Local		265,439,784	216,809,772	247,589,310	164,692,891	116,083,844	1,010,615,601
<b>Grand Total</b>		<b>722,839,001</b>	<b>820,611,143</b>	<b>866,417,149</b>	<b>552,717,441</b>	<b>669,048,844</b>	<b>3,631,633,578</b>

## UNDERSTANDING THE PROJECT DETAILS

The following informational guide assists the reader in understanding the layout and content of the Project Details provided on the following pages.

Phase	Fund Source	2023	2024	2025	2026	2027	Total
1	2	3	4	5			
36TH STREET FROM AUSTRALIAN AVE TO POINSETTA AVE	-Proj# 4415701	Length: 1.070 MI	*Non-SIS*				
6 Type of Work: BIKE LANE/SIDEWALK		7 Lead Agency: WEST PALM BEACH					
9 Description: Buffered bicycle lanes and pedestrian enhancements. Includes construction of bicycle and pedestrian bridge.		8					
10	11	12					
PE	SU	0	7,000	0	0	0	7,000
CST	LF	0	0	0	3,875,805	0	3,875,805
CST	SU	0	0	0	4,987,000	0	4,987,000
Total		0	7,000	0	8,862,805	0	8,869,805
13	14	15					
Prior Years Cost	Future Years Cost	Total Project Cost					8,869,805

1. Project Name and limits.
2. FDOT Financial Management Number.
3. Length of the project in miles.
4. Identifies whether the project is part of the Strategic Intermodal System.
5. Identifies whether the project is a Regionally Significant Project.
6. Shows the Type of Work accomplished by the project.
7. Lead agency for the project.
8. Identifies how the project is referenced in the Long Range Transportation Plan (LRTP).
9. Provides any explanatory description or notes for the project.
10. Phase of the project.
11. Funding source. See Fund Summary for descriptions.
12. Programmed cost estimates for each fiscal year.
13. Funds already encumbered/expended for the project in previous years.
14. Funds expected to be necessary for the project in future years beyond the five-year period addressed in the TIP.
15. Total project cost including prior years, the current TIP and future years.



**Florida Rail Safety Initiatives**

**Rickey Fitzgerald**  
 Manager, Freight & Rail Office  
 6/16/2022

**FDOT**   **FREIGHT & RAIL**

The slide features a large gear graphic on the left. Inside the gear, there is a photograph of a white semi-truck on a highway and a photograph of a freight train. The background of the slide is split into a red upper half and a blue lower half.

1



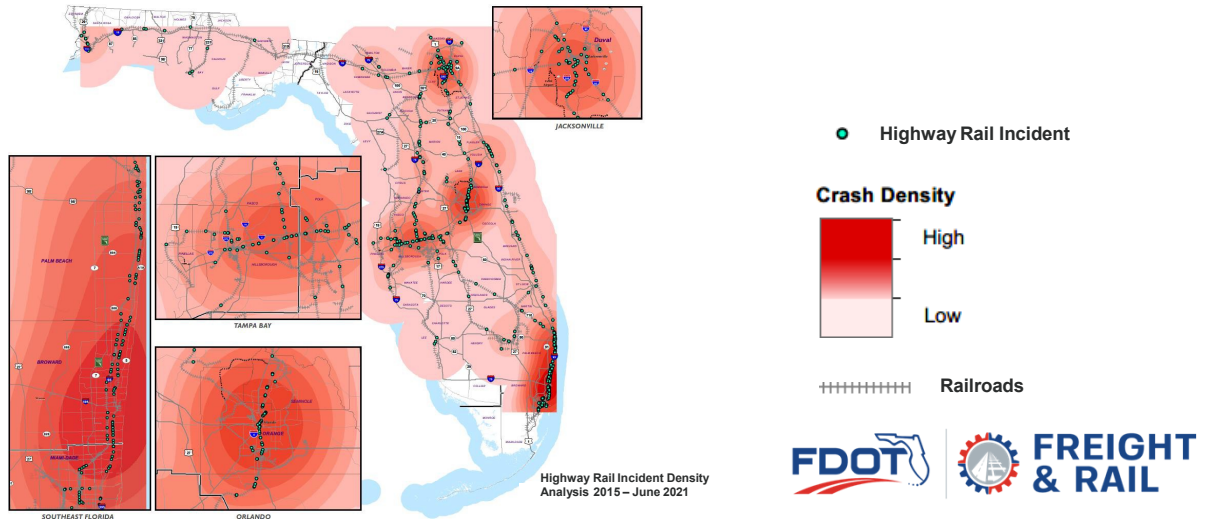
**Defining the Challenge**

- Analysis of Hotspots
- Identifying Partners

The slide features a photograph of a freight train with many colorful containers on the left. The right side of the slide is a solid blue background with a white diagonal line separating it from the image.

2

## Analysis of Hotspots



3

## Identification of Partners



4

# Implementation

## FOUR Es OF SAFETY



ENGINEERING



ENFORCEMENT



EDUCATION



EMERGENCY RESPONSE



5



## Engineering Solutions

- Section 130 crossing improvements
- Grade Crossing Closure Program
- Dynamic envelope installation
- Preemption signal inventory
- Higher Speed Grade Crossing Design Manual
- 2021 RAISE Grant with Indian River County and Brightline
- Collaborating SRRT anti-trespassing recommendations



**FREIGHT  
& RAIL**

6





## Educational Efforts

- Operation STRIDE
- Operation Lifesaver
- Media campaigns
- CFRC Task Force
- Partnering with mental health experts
- Safety messages on DMS
- Suicide prevention signage
- FLHSMV driver test collaboration



7



## Enforcement

- Rail Safety Week partnerships with local law enforcement at crossings
- Worked to expand Florida Operation Lifesaver Board of Directors to include law enforcement and Brightline



8

# Way Forward

- Defining roles and responsibilities
- Building a cohesive vision together
- FDOT and partners, building on current efforts, has developed matrix of safety strategies





## Safety Strategies

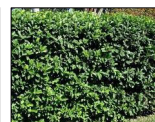
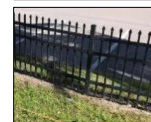
-  Pedestrian Trespassing
-  Vehicular Trespassing
-  Traffic Queuing Over Grade Crossings
-  Motorist and Pedestrian Behaviors

9



## Mitigation of Pedestrian Trespassing





	OBJECTIVES	MITIGATION STRATEGIES
	Improving pedestrian walkability	<ul style="list-style-type: none"> <li>• New pedestrian crossing</li> <li>• Sidewalk connection</li> <li>• Pedestrian gates</li> <li>• Barrier to keep pedestrians on the sidewalk</li> </ul>
	Preventing illicit activities through better boundaries	<ul style="list-style-type: none"> <li>• FDOT Type B fencing</li> <li>• Hardened fencing</li> <li>• Vegetative barrier</li> </ul>
	Artificial Intelligence monitoring technologies	<ul style="list-style-type: none"> <li>• CCTV</li> <li>• AI for detecting trespassers</li> <li>• Speakers and lights</li> <li>• Transmission of alerts</li> </ul>
	Enhancing lighting for pedestrian visibility	<ul style="list-style-type: none"> <li>• LED streetlight in each grade crossing quadrant</li> </ul>



10



## Mitigation of Vehicular Trespassing






	OBJECTIVES	MITIGATION STRATEGIES
	Implement a passive warning system	<ul style="list-style-type: none"> <li>• Continuous pavement markings across the grade crossing</li> <li>• RPMs</li> <li>• Delineators</li> </ul>
	Thwart access to the railroad	<ul style="list-style-type: none"> <li>• Guardrail</li> <li>• Nine button sign</li> </ul>
	Artificial Intelligence monitoring technologies	<ul style="list-style-type: none"> <li>• CCTV</li> <li>• AI for detecting trespassers</li> <li>• Speakers and lights</li> <li>• Transmission of alerts</li> </ul>
	HSR Grade Crossing Design Standards	<ul style="list-style-type: none"> <li>• FDOT At-Grade Railroad Crossings and Corridors for (80-110 mph) Design Criteria and Standards Manual addressing the planning, design, construction, maintenance and operational characteristics associated with highway–rail grade crossings located in Florida</li> </ul>

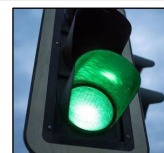
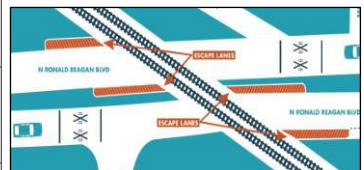
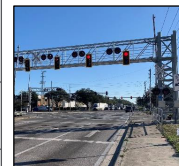


11



## Traffic Queued Over Grade Crossings


	OBJECTIVES	MITIGATION STRATEGIES
	Move queued vehicles through downstream traffic signals	<ul style="list-style-type: none"> <li>• Continue to conduct preemption studies, install preemption per Florida Administrative Code 14-57.013(5)</li> </ul>
	Hold traffic upstream of a grade crossing	<ul style="list-style-type: none"> <li>• Pre-signals</li> <li>• Queue cutter signals</li> </ul>
	Warn motorists to not block grade crossings	<ul style="list-style-type: none"> <li>• Sensor-activated LED R8-08 "Do Not Stop On Tracks" signage</li> </ul>
	Allow motorists to escape if stopped by queuing	<ul style="list-style-type: none"> <li>• Escape lanes</li> </ul>
	Restrict downstream vehicle movements on minor roadways with short clear storage distance	<ul style="list-style-type: none"> <li>• No trucks designation</li> <li>• Permit only right turns at downstream intersection</li> <li>• Merge/acceleration lane</li> <li>• Provide stop signs for all intersection approaches except from the grade crossing</li> </ul>



12




## Motorist and Pedestrian Behavior

	OBJECTIVES	MITIGATION STRATEGIES
	Bolster public outreach and education programs	<ul style="list-style-type: none"><li>• Grade crossing safety outreach</li><li>• Trespass prevention outreach</li><li>• Suicide prevention training</li></ul>

BE  
RAIL  
SMART



13



## Closing

- What are the next steps?
- How do we effectively implement with a diverse group?
- Any other challenges?
- Who else should be included in the effort?

14

**Why the  
Palm Beach County Transportation Planning Agency Governing Board  
should locally support the White House goal of 50% of all new light vehicles  
sold in 2030 be powered by clean energy**

**by**

**Mike Fitzpatrick**

PBC TPA Citizen Advisory Committee member 2016 – present

Boynton Beach City Commissioner 2013-2016

2021 National Sierra Club Volunteer Award recipient

**Information sources**

Beth	Bowers	Electric Vehicle Specialist	Florida Power and Light
Rebecca	Harvey	Sustainability Coordinator	City of Boynton Beach
Dory	Larsen	ET Program Manager	Southern Alliance for Clean Energy
Jake	Leech	Environmental Analyst	Palm Beach County
Holly	Lichtenfeld	Co-chair	Boca Raton Chapter of The Climate Reality Project
Linda	Smithe	Chair	Loxahatchee Group of the Sierra Club
Susan	Steinehauser	Co-chair	Boca Raton Chapter of The Climate Reality Project
Catherine	Toms	EV Chair	Boca Raton Chapter of The Climate Reality Project

21MAR2022

## *Executive Summary*

There are over one million light duty vehicles (car, pickups, and delivery vans) registered in Palm Beach County. Each year the heat and pressure of internal combustion engine (ICE) piston chambers render 5.25 million tons of breathable oxygen useless to sustain life as it combines with the hydrogen and carbon atoms of 1.65 million tons of gasoline. Each year from the Palm Beach County ICE light duty vehicle tail pipes spew newly formed molecules of over 1.9 million tons of water (steam) and over 5 million tons of carbon dioxide gas. Carbon dioxide (CO<sub>2</sub>) is a stable molecule which once formed will linger in the atmosphere between 300 to 1,000 years. Therefore nearly all of the carbon dioxide produced from fossil fuels burned over the last century is still in our atmosphere. The carbon dioxide made on I-95 today will add to the amount CO<sub>2</sub> in the air until at least the year 2322 and possibly the year 3022.

Carbon dioxide and atmospheric water are both major greenhouse gases. The EPA estimates 17% of the USA greenhouse gas pollution comes from light duty vehicles. Due to the lack of heavy industry, Palm Beach pollution percentages are different from the national average. Of the amount of pollution Palm Beach County generates it is likely 20% or higher of the total amount comes from ICE cars.

Global warming is and will have a greater impact on Palm Beach County than nearly any other area of the country because we are a low elevation, sub-tropical county with its most expensive infrastructure built near the Atlantic Ocean. The Atlantic Ocean has risen 12 inches in the last century and it will rise another 12 inches in less than 30 years. For the best outcome for the citizens of Palm Beach County, the political leadership must be proactive in this silent, invisible, touchless, odorless, tasteless, slow acting but implacable crisis.

On August 5<sup>th</sup>, 2021 President Biden signed the “Executive Order on Strengthening American Leadership in Clean Cars and Trucks” which states in part: “...Section 1. Policy. America must lead the world on clean and efficient cars and trucks. That means bolstering our domestic market by setting a goal that 50 percent of all new passenger cars and light trucks sold in 2030 be zero-emission vehicles, including battery electric, plug-in hybrid electric, or fuel cell electric vehicles.”



Actively assisting this goal lies within the mandate of the Palm Beach County Transportation Planning Agency. MPO enabling legislation states in part “In developing the long-range transportation plan and the transportation improvement program required under paragraph (a), each M.P.O. shall provide for consideration of projects and strategies that will: .... Increase the safety and security of the transportation system for motorized and nonmotorized users;.... Protect and enhance the environment, promote energy conservation, and improve quality of life;.... Promote efficient system management and operation;...”

More specifically at the March, 2022 PBC TPA Citizen Advisory Committee meeting TPA staff presented, “a MOTION TO RECOMMEND ADOPTION of 2022 Legislative and Policy Positions” which included the policies 1.d “Mandate adaptive cruise control, lane assistance, and collision avoidance systems on new vehicles.” and policy 4. “Provide funding to advance autonomous, connected, and electric vehicles and infrastructure.”

Achieving the “goal that 50 percent of all new passenger cars and light trucks sold in 2030 be zero-emission vehicles, including battery electric, plug-in hybrid electric, or fuel cell electric vehicles” is possible. Norway accomplished this between the years 2011 and 2018. Now in early 2022, 96% of all new cars sold in Norway are plug-in vehicles.

The estimated number of new cars in 2030 equaling 50% of those sold in PBC is over 52,000. If in 2030 new car sales are 50% plug-ins, this will cumulatively total only 13% of the cars on the road. Therefore 87% of light duty vehicles on the road will still be gasoline and diesel powered. Based on the Norway curve, in 2034 it is likely 100% of new light duty vehicles sold will be plug-ins. In 2034 still 62% of the cars on the road will be the older ICE propelled. Except for registered antiques, all cars on the road in 2042 will likely be plug-ins. When this happens here greenhouse gas pollution from Palm Beach County will have decreased by at least 1/5<sup>th</sup>.

Government planning at any level which stops the release of carbon dioxide will lower the heat peak and may shorten the negative effects on the planet by decades. Secondly, the infrastructure for ICE cars is a major pillar of the USA economy. The changeover from ICE to BEV will be highly disruptive but government intervention may help ease the transition for many to the new economy.

The actions requested of the PBCTPA Governing Board are:

- 1) Task the Technical Advisory Committee to perform an in depth review of the coming disruptive switch from ICE to BEV light duty vehicles and make recommendations as needed.
- 2) Form a sub committee headed by Governing Board members and composed of representatives from Agency staff, the Technical Advisory Committee and the Citizen Advisory Committee to consider the future direction of the Transportation Planning Agency with regards to Global Warming.
- 3) Make an inter-Agency request to the Florida Department of Highway Safety and Motor Vehicles that an accessible report be maintained categorizing PBC vehicle registrations by make, model and propulsion type.
- 4) The Governing Board wearing their other hats as City Commissioners, Mayors and County Commissioners should reactivate the initiative to establish an accurate accounting of the amount of greenhouse gas pollution generated by Palm Beach County.



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## Palm Beach County and Global Warming

Palm Beach County is low lying, coastal, subtropical with most of its expensive real estate infrastructure built within a few miles of the Atlantic Ocean. Therefore we will suffer earlier and more extensive damage from a warming planet than nearly any other place in the United States. The Atlantic Ocean has risen 12 inches in the last 100 years. In just 28 years, by 2050, the Atlantic Ocean is projected to rise another 10 to 14 inches on the East Coast<sup>1</sup>. The likelihood of a hurricane developing into a major one of Category 3 or higher is increasing by about 8 percent a decade<sup>2</sup>.

Floridians are well aware of the potential existential damage from hurricanes. September 2019 Hurricane Dorian pounded the Bahamas with sustained winds of 185mph and videos show 20 feet storm surges in Freeport. Freeport is only 84 miles east of the TPA offices in West Palm Beach. What happens if the next Category 5 hurricane does not veer away?

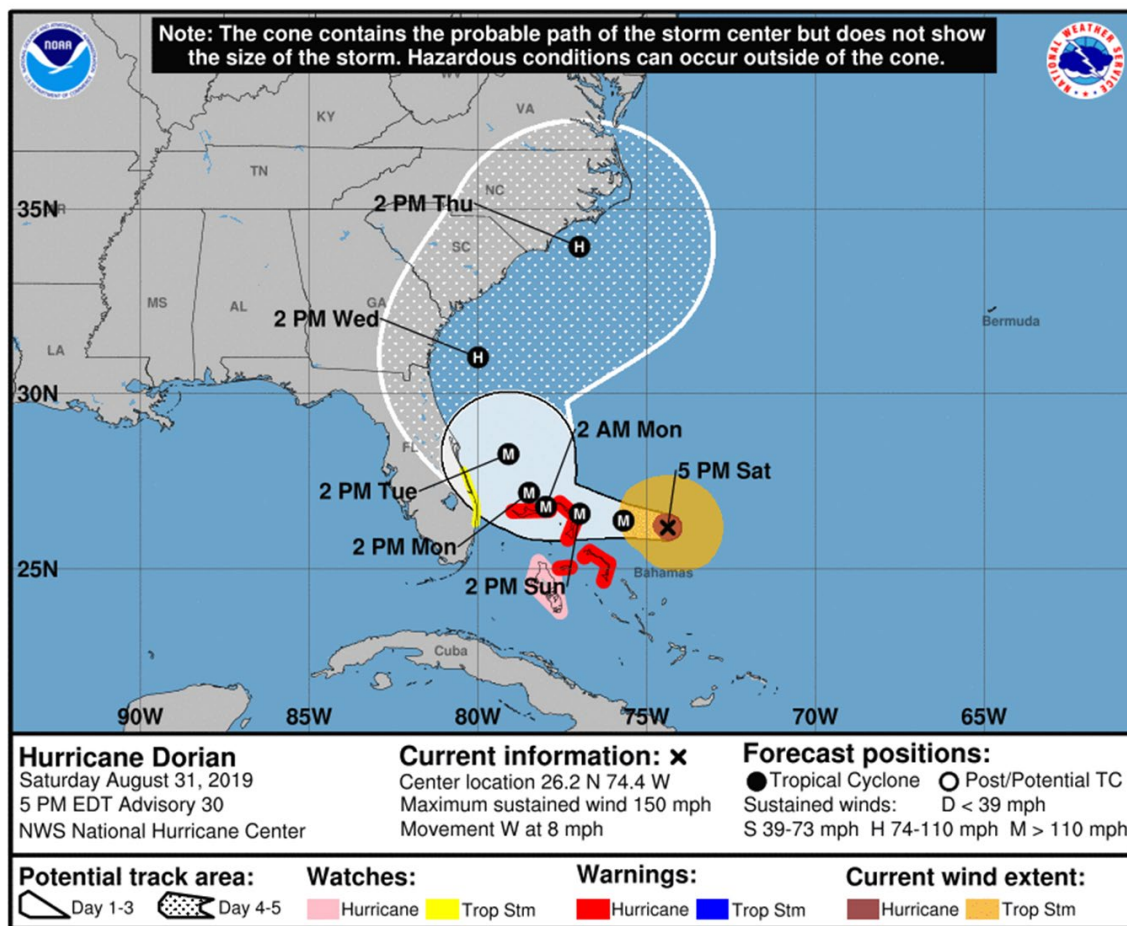


Figure 1 [https://www.nhc.noaa.gov/data/tcr/AL052019\\_Dorian.pdf](https://www.nhc.noaa.gov/data/tcr/AL052019_Dorian.pdf)

<sup>1</sup> <https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html#step1>

<sup>2</sup> <https://www.nytimes.com/2020/05/18/climate/climate-changes-hurricane-intensity.html>

Floridians are starting to understand the harm and costs of King Tides and salt water intrusion. Less understood by Floridians is how a warming ocean retains lower levels of oxygen. Many species of fish will have to leave our coast or be smothered. Coral reefs are also dying at an accelerated rate.

Evolving strategies to reverse Global Warming and its effects fall in to two categories: mitigation and adaptation. Mitigation strategies reduce greenhouse gas emissions from development, and adaptation strategies make communities more resilient to the effects of a changing climate<sup>3</sup>.

### **How much greenhouse gas pollution does Palm Beach County produce?**

The EPA does a good job of laying out the sources of Green House Gas (GHG) emissions<sup>4</sup>. “The transportation sector is one of the largest contributors to anthropogenic U.S. greenhouse gas (GHG) emissions. According to the *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2019* (the national inventory that the U.S. prepares annually under the United Nations Framework Convention on Climate Change), transportation accounted for the largest portion (29%) of total U.S. GHG emissions in 2019. Cars, trucks, commercial aircraft, and railroads, among other sources, all contribute to transportation end-use sector emissions.”

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<sup>3</sup> <https://www.epa.gov/smartgrowth/smart-growth-and-climate-change>

<sup>4</sup> For more information on U.S. GHG Emissions from Transportation and what the numbers in these pie charts represent, please see: [Fast Facts: U.S. Transportation Sector GHG Emissions \(PDF\)](#) (5 pp, 289 K, June 2021, EPA-420-F-21-049)

## 2019 U.S. GHG Emissions by Sector

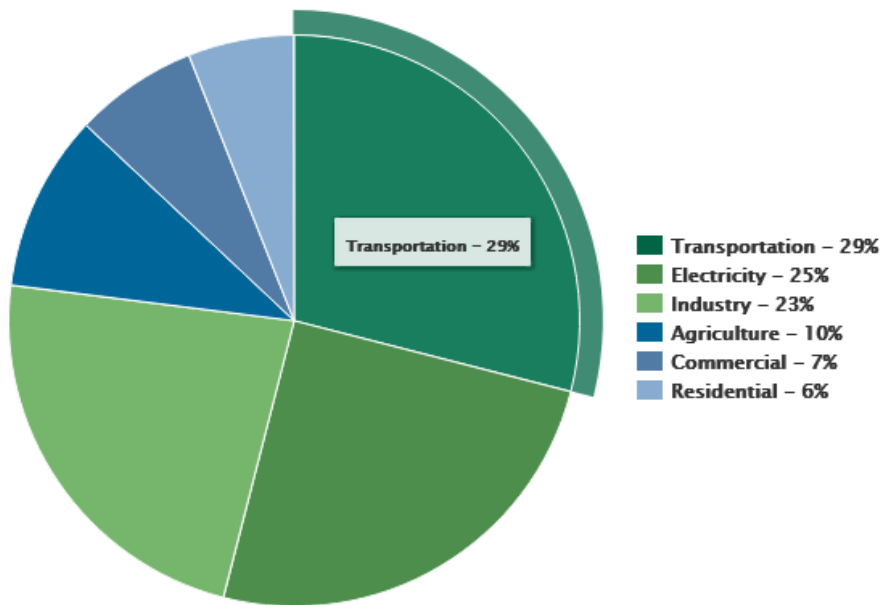


Figure 2 Transportation - 29% Electricity - 25% Industry - 23% Agriculture - 10% Commercial - 7% Residential - 6%

## 2019 U.S. Transportation Sector GHG Emissions by Source

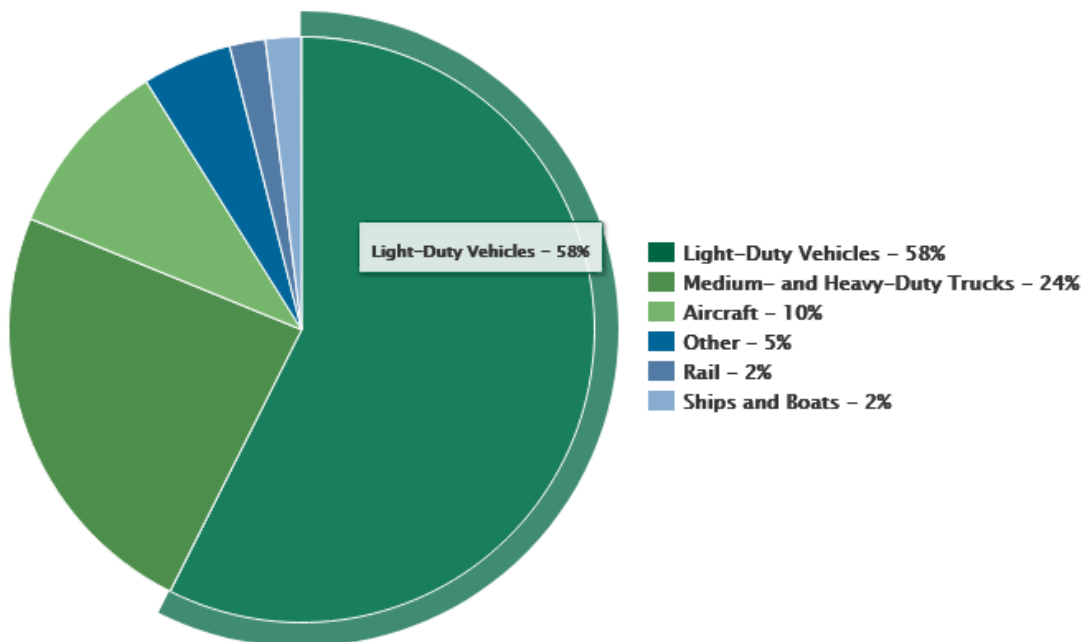


Figure 3 Light-Duty Vehicles - 58% Medium- and Heavy-Duty Trucks - 24% Aircraft - 10% Other - 5% Rail - 2% Ships and Boats - 2% Note: Totals may not add to 100% due to rounding. Transportation emissions do not include emissions from non-transportation mobile sources such as agriculture and construction equipment. "Other" sources include buses, motorcycles, pipelines and lubricants

Using the data from these two charts together we can see light-duty vehicles (the subject of President Biden's Executive Order) account for 17% of the nation's greenhouse gas pollution ( $.29 \times .58 = .1682$ ).

A rumor is three years ago a committee was gathering the data to create similar pie charts in Figures 3 and 4 specifically for Palm Beach County. For unspecified reasons this initiative was abandoned. For Palm Beach County the percentage of pollution from light-duty vehicles is most likely 20% or higher of our total because we have so little industry.

The most accurate way to determine how much pollution is produced by light-duty vehicles is to determine how many gallons of gasoline and diesel fuel are sold and burned per year in Palm Beach County. It should be possible to derive this number by the amount of gas tax money generated by Palm Beach County. Unfortunately, how gas tax money is handled is a complex and opaque process. Therefore this information is not available to the Palm Beach County Transportation Planning Agency.

An alternative method to determine the amount of CO<sub>2</sub> pollution in Palm Beach County from light duty vehicles is use the EPA's average values for cars. The average ICE car gets about 22.0 miles per gallon and drives around 11,500 miles per year<sup>5</sup>. This means a car burns about 523 gallons of gasoline per year ( $11,500 / 22$ ).

The weight of one gallon of gasoline is 6.3 pounds. Therefore the average ICE burns 3,295 pounds ( $523 \times 6.3$  lbs.) of gasoline per year. This weight is 1.65 tons ( $3,295$  lbs. / 2,000).

The weight of a gallon of gasoline (6.3 lbs.) is the total of the weight of carbon atoms (5.5 lbs or 87%) plus the weight of hydrogen atoms (0.8 lbs or 13%). Air is sucked through the carburetor of an internal combustion engine (ICE) into the piston chambers where atomized gasoline is burned using the oxygen component of air. In the heat and pressure of a piston chamber, the 5.5 pounds of carbon atoms (C) and the 0.8 pounds of hydrogen atoms (H) combine with 21 pounds of oxygen atoms (O). After combustion, this 27.3 pounds of atoms per gallon of gasoline reforms to become new molecules of 20 pounds of carbon dioxide (CO<sub>2</sub>) and 7.3 pounds of water (H<sub>2</sub>O) which is spewed from the engine tailpipe into the atmosphere<sup>6</sup>.

To recap:

Every year the average ICE car burns 1.65 tons of gasoline using 5.25 tons of breathable oxygen (O<sub>2</sub>) which is chemically transformed into 5 tons of carbon dioxide (CO<sub>2</sub>) and 1.9 tons of water (H<sub>2</sub>O).

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<sup>5</sup> <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle#typical-passenger>

<sup>6</sup> Appendix 3: How can 1 gallon of gas produce 20 pounds of CO<sub>2</sub>?

There are over 1 million light duty vehicles registered in Palm Beach County (see Figure 12).

Therefore **the light duty vehicles of Palm Beach County every year are sucking out of the air over 5.25 million tons of breathable oxygen to burn over 1.65 million tons of gasoline which then spews over 5 million tons of carbon dioxide back into the air.**

Carbon dioxide is a stable molecule. These new molecules will stay in the atmosphere between 300 to more than 1,000 years. They will not recycle to breathable oxygen again until a process such as photosynthesis in a living plant uses the energy of sunlight to break the chemical bonds to obtain the carbon for cell structure and release the oxygen back into the atmosphere. The only way to return to the weather patterns of the 1950's is return the atmosphere to the atmospheric chemistry of the 1950's. The first step to do this is stop new greenhouse gas pollution<sup>7</sup>.

Towards this end August 5<sup>th</sup>, 2021 President Biden released a White House Executive Order.

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<sup>7</sup> <https://news.climate.columbia.edu/2021/02/25/carbon-dioxide-cause-global-warming/>

# Executive Order on Strengthening American Leadership in Clean Cars and Trucks

BRIEFING ROOM

## Executive Order on Strengthening American Leadership in Clean Cars and Trucks

AUGUST 05, 2021 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to promote the interests of American workers, businesses, consumers, and communities, it is hereby ordered as follows:

Section 1. Policy. America must lead the world on clean and efficient cars and trucks. That means bolstering our domestic market by setting a goal that 50 percent of all new passenger cars and light trucks sold in 2030 be zero-emission vehicles, including battery electric, plug-in hybrid electric, or fuel cell electric vehicles. My Administration will prioritize setting clear standards, expanding key infrastructure, spurring critical innovation, and investing in the American autoworker. This will allow us to boost jobs — with good pay and benefits — across the United States along the full supply chain for the automotive sector, from parts and equipment manufacturing to final assembly.

It is the policy of my Administration to advance these objectives in order to improve our economy and public health, boost energy security, secure consumer savings, advance environmental justice, and address the climate crisis.

....

JOSEPH R. BIDEN JR.

THE WHITE HOUSE  
August 5, 2021.

Figure 4 (for complete Executive Order see Appendix 6)



## Questions for the PBC TPA Governing Board

### Is implementing a local initiative for President Biden's executive order on clean cars and trucks in the purview of the PBC TPA?

From Florida State Statutes 339.175 Metropolitan planning organization. (See Appendix 5 for the complete Statute)

6) POWERS, DUTIES, AND RESPONSIBILITIES.—The powers, privileges, and authority of an M.P.O. are those specified in this section or incorporated in an interlocal agreement authorized under s. [163.01](#). Each M.P.O. shall perform all acts required by federal or state laws or rules, now and subsequently applicable, which are necessary to qualify for federal aid. It is the intent of this section that each M.P.O. shall be involved in the planning and programming of transportation facilities, including, but not limited to, airports, intercity and high-speed rail lines, seaports, and intermodal facilities, to the extent permitted by state or federal law.

(a) Each M.P.O. shall, in cooperation with the department, develop:

1. A long-range transportation plan pursuant to the requirements of subsection (7);
2. An annually updated transportation improvement program pursuant to the requirements of subsection (8); and
3. An annual unified planning work program pursuant to the requirements of subsection (9).

(b) **In developing the long-range transportation plan and the transportation improvement program required under paragraph (a), each M.P.O. shall provide for consideration of projects and strategies that will:**

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. **Increase the safety and security of the transportation system for motorized and nonmotorized users;**
3. Increase the accessibility and mobility options available to people and for freight;
4. **Protect and enhance the environment, promote energy conservation, and improve quality of life;**
5. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
6. **Promote efficient system management and operation;** and
7. Emphasize the preservation of the existing transportation system.

Expanding on the sections emphasized in bold print:

**Increase the safety and security of the transportation system for motorized and nonmotorized users** Quality BEVs have computers which are connected to multiple cameras and radar devices. The computers are also connected to the steering, acceleration, and braking systems of the vehicle. Increasing the percentage of BEVs on our roadways increases the safety of both drivers and pedestrians. (See Appendix 1, sub heading Safety).

**Protect and enhance the environment, promote energy conservation, and improve quality of life;**

As previously explained the switch from ICE and diesel engine vehicles to plug in vehicles will **enhance the environment** by stopping the release of over 5 million tons of the greenhouse gas CO<sub>2</sub> into the skies of Palm Beach County per year. This is likely 20% or greater of all greenhouse pollution produced in Palm Beach County.

**Energy conservation --** The energy stored in the chemical bonds between carbon and hydrogen atoms in a gallon of gasoline are about 120,286 British Thermal Units (Btus)<sup>8</sup>. This amount of energy converts to 35.2 Kilowatt hours (kWhs)<sup>9</sup>. The average car's fuel economy is 22 miles per gallon<sup>10</sup>. Therefore per 100 miles the average car burns 4.5 gallons of gasoline. This 4.5 gallons of gasoline is the energy equivalent of 160 Kilowatt hours.

The average electric car uses 34.6 Kilowatt hours per 100 miles<sup>11</sup>. This is 460% more efficient than the average ICE powered car. The most energy efficient car currently is the 2021 Tesla Model 3 Standard Range Plus RWD Automatic which uses 24kWh per 100 miles<sup>12</sup>. This is 666% more efficient than the average ICE powered car.

There are also other energy costs which need to be addressed for a true comparison of energy conservation. In producing gasoline the refining process adds an additional 10% of energy used. For this paper it is unknown how to calculate the energy cost of transporting a gallon of hydrocarbons from thousands of feet underground to your local gas station.

When charging an electric car nothing is physically moved. The movement of electrons on high powered electric lines is virtually instantaneous and friction free. Electric motors convert 77% of electrical energy from the grid into spinning wheels<sup>13</sup>. The conservation of energy of electric cars over ICE powered cars is even more glaring when calculated for a commuter who charges their car with electricity from solar panels on their home.

**Promote efficient system management and operation**

The State of California and the European Union with their clear directives on reducing global warming emissions have created enough certainty in the future business climate so that

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<sup>8</sup> <https://www.eia.gov/energyexplained/units-and-calculators/>

<sup>9</sup> <https://www.boilerstoves.co.uk/convert-btu.asp>

<sup>10</sup> See Appendix 3.

<sup>11</sup> <https://ecocostsavings.com/average-electric-car-kwh-per-mile/>

<sup>12</sup> <https://www.fueleconomy.gov/feg/Find.do?action=sbs&id=43821>

<sup>13</sup> <https://www.fueleconomy.gov/feg/evtech.shtml>

the more creative auto manufacturers (Tesla, Volkswagen, Ford, GM, Hyundai) have committed their futures to manufacturing BEVs rather than ICE powered vehicles. The rest of the car manufactures will have to follow their lead or go bankrupt.

It would be inefficient system management for the PBCTPA not to be involved locating easy access and adequate charging stations for visitors passing through PBC or stopping here. It would be inefficient system management if the PBCTPA did not plan for the contingency that some gas stations may be abandoned without first removing their in ground gasoline tanks. Do elected officials have a duty to help mitigate the problems facing citizens resulting from a disruptive technology change?

The safe braking distance for sixty miles per hour is 359 feet.

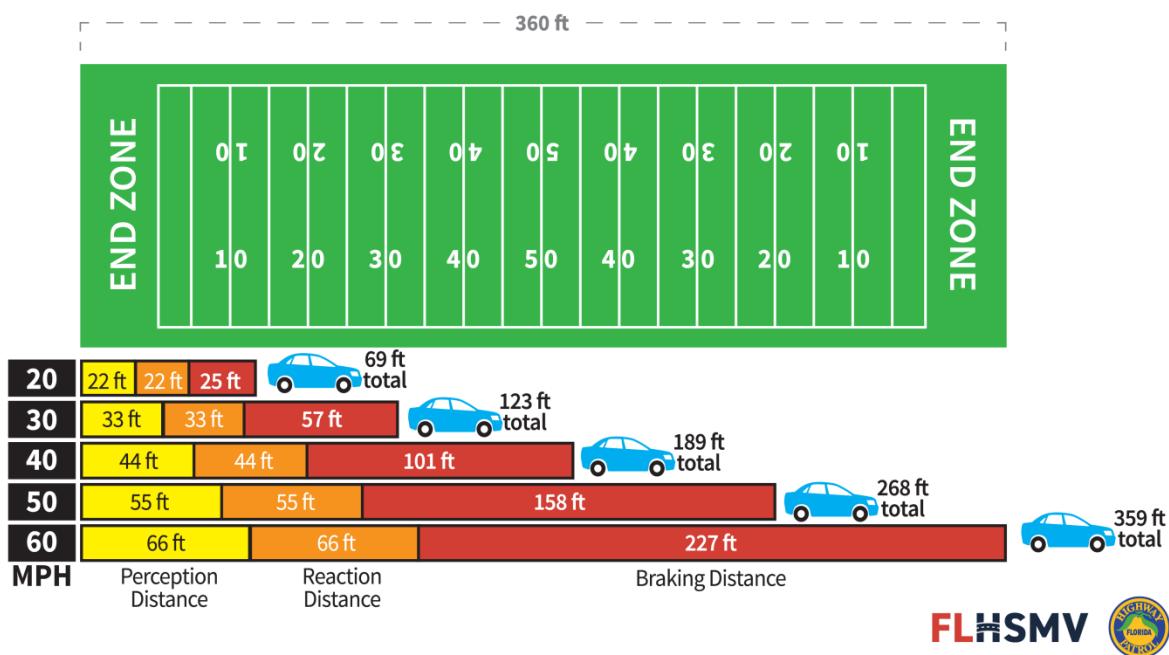


Figure 5 <https://www.flhsmv.gov/safety-center/driving-safety/distracted-driving/>

Still in the realm of science fiction, but probably less than a decade away from becoming science fact, BEVs will increase the efficiency and carrying capacity of the road network by communicating with other computer controlled vehicles so convoys may form and safely travel tightly together at high speeds. Energy efficiency may even improve from drafting.

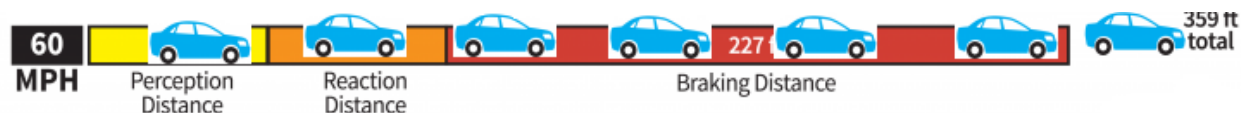


Figure 6 When all cars have motion cameras and communicate with each other it will be possible to safely platoon them closely together as they accelerate, brake, and swerve to avoid road hazards in unison.

When a semi tractor trailer tire blows, the cars' artificial intelligences will be able compute avoidance routes and cars a mile back will brake in unison. The semi will slow down and limp to the breakdown lane as cars flow around it like schooling fish.

The PBCTPA staff officially supports this vision. At the March 2, 2022 Citizen Advisory Committee board meeting Agenda item 2.A was a MOTION TO RECOMMEND ADOPTION of 2022 Legislative and Policy Positions. This motion was passed by the CAC. Among the listed "actions consistent with its vision" were policy 1.d. "Mandate adaptive cruise control, lane assistance, and collision avoidance systems on new vehicles." And policy 4. "Provide funding to advance autonomous, connected, and electric vehicles and infrastructure."

PALM BEACH  
TRANSPORTATION PLANNING AGENCY  
2022 LEGISLATIVE & POLICY POSITIONS



The Palm Beach TPA collaboratively plans, prioritizes, and funds the transportation system of Palm Beach County and supports the following actions consistent with its vision.

**SAFE**

1. Change state and/or federal law to:
  - a. Regulate distracted driving<sup>1</sup> and failure to obey crossing guards as primary offenses,
  - b. Allow automated speed enforcement/citations<sup>2</sup>,
  - c. Require helmets for all bicyclists<sup>3</sup>, scooters and motorcyclists<sup>4</sup>, and
  - d. Mandate adaptive cruise control, lane assistance, and collision avoidance systems on new vehicles<sup>5</sup>.
2. Enhance education to include:
  - a. Annual pedestrian and bicycle safety curriculum in Elementary and Middle Schools<sup>6</sup>,
  - b. Driver education<sup>7</sup> curriculum in High School, and
  - c. Knowledge of pedestrian, bicycle, and motorcycle laws to obtain a driver's license<sup>8</sup> and to renew it every 5 years, and
  - d. Roadway safety information distributed to rental car companies for customers.
3. Revise state and local roadway design standards based on context classification, including setting a target speed based on context instead of existing speeds<sup>9</sup> and establishing context-based criteria for installation of vehicle or pedestrian crossing treatments at mid-block and unsignalized locations.

**EFFICIENT**

4. Provide funding to advance autonomous<sup>10</sup>, connected, and electric vehicles<sup>11</sup> and infrastructure.

Figure 7: Top half of page 14 of the 2MAR2022 PBC TPA CAC agenda & backup packet.

## If sufficient Federal funding is authorized to successfully address the ills of global warming, what is the best way to locally distribute this money?

So far not enough Americans have shown they possess the attributes of wisdom, delayed gratification, and a basic understanding of science for the USA to successfully solve a crisis which can not be seen, smelled, felt, heard, tasted and while implacable, has taken decades to start manifesting itself. If in the future the country decides to stop global warming,

this will take massive amounts of Federal money which will need to be distributed to the local level.

The PBC TPA web site states Metropolitan Planning Organizations were created with the passage of the Federal-Aid Highway Act of 1962. In the subsequent 60 years, while far from perfect, MPOs have developed policy for the efficient, inclusive, and low graft distribution of Federal funds for local infrastructure projects. Clearly the MPO bureaucratic structure is the most logical template for the distribution of State and Federal funds to build local infrastructure projects. The TPA Governing Board template is the most inclusive and therefore fairest way to set policy countywide.

In the optimistic future scenario, who will oversee and administer the Federal funds for Global Warming infrastructure projects such as seawalls or wiring parking garages for BEV charging? There are two basic choices. Graft additional duties and responsibilities onto existing MPOs or create a new agency.

Perhaps a new organization with a similar Governing Board or even the same governing board as existing MPOs is the best choice. Separate meetings would be required in much the same way elected City Commissioner meet as the City Commission and also separate meetings as CRA commissioners. Trying to graft Global Warming initiatives beyond transportation issues into the current MPO/TPA structure may be counter productive. The current TPA structure is a smooth running organization which moves through the budget year with very predictable and familiar rules, tasks, expectations, and deadlines. It is a well worn road for transportation projects from inception to completion. On the other hand, a government agency implementing Global Warming mitigation and adoption projects is likely to attract employees who are true believers with a sense of impending doom. The policies issuing from the State and Federal levels are likely to be works in progress with many gaps. The overall goal would be to bend the arc to lessen the peak damages caused by Global Warming.

### **What will replace the gas tax?**

Per gallon gas taxes are a major funding source for transportation. As the percentage of ICE vehicles declines, so will the amount of gas tax revenue. How much money is at stake for Palm Beach County? Unfortunately, the PBCTPA staff does not know how many gallons of gasoline and diesel fuel are sold in the County.

There is no clear consensus of how to start making up this currently small, but increasing loss of tax revenue. In every case making up the difference by imposing a driving tax on electric vehicles is a stupid idea. This is the moral equivalent of taxing attendees to Alcoholic

Anonymous meetings to make up for a drop in booze tax revenues. Or taxing nicotine patches to make up for a drop in cigarette excise taxes. The big picture is every ICE vehicle is destroying the world by generating on average five tons of CO<sup>2</sup> per year. This societal cost far outweighs the societal cost of a decreasing gas tax.

### Is the goal of selling 50% of all new light duty vehicles as plug in vehicles by 2030 realistic and achievable?

For the year 2021 Norway's new car sales of plug in vehicles was 87% of total new cars sold. BEVs were 65%, plug in hybrids 22%, non plug in hybrids 6%, ICE cars only 4%(!!) and diesel 4%.<sup>14</sup> Norway reached the 50% market share for new plug in vehicles in 2018, twelve years before our leadership hopes the USA can achieve this goal.

Norway is not a fluke. Sweden crossed the 50% new car sales for plug ins in 2021<sup>15</sup>. New car plug in sales for November 2021 in Germany were 34%.<sup>16</sup>

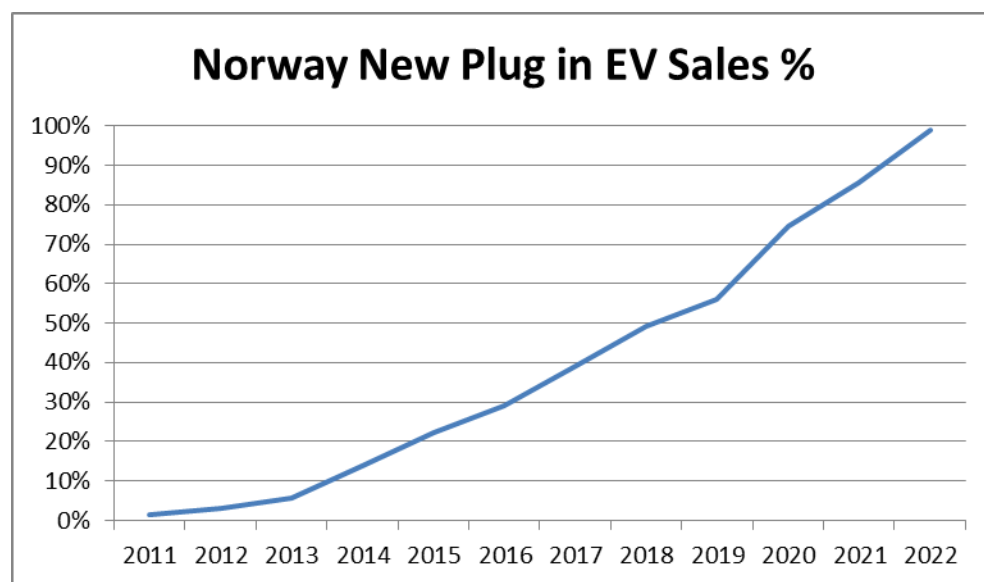


Figure 8 Norway's curve of new light duty vehicles which were plug-ins.

By shifting Norway's historical curve so the 50% sales mark centers on the year 2030 it is apparent Norway's success could be duplicated in the USA:

<sup>14</sup> <https://www.reuters.com/business/autos-transportation/electric-cars-take-two-thirds-norway-car-market-led-by-tesla-2022-01-03/>

<sup>15</sup> <https://cleantechnica.com/2021/12/02/most-autos-sold-in-sweden-are-now-plugin-evs-over-54-in-november/>

<sup>16</sup> <https://cleantechnica.com/2021/11/04/germanys-plugin-ev-share-jumps-above-30-an-unstoppable-force/>

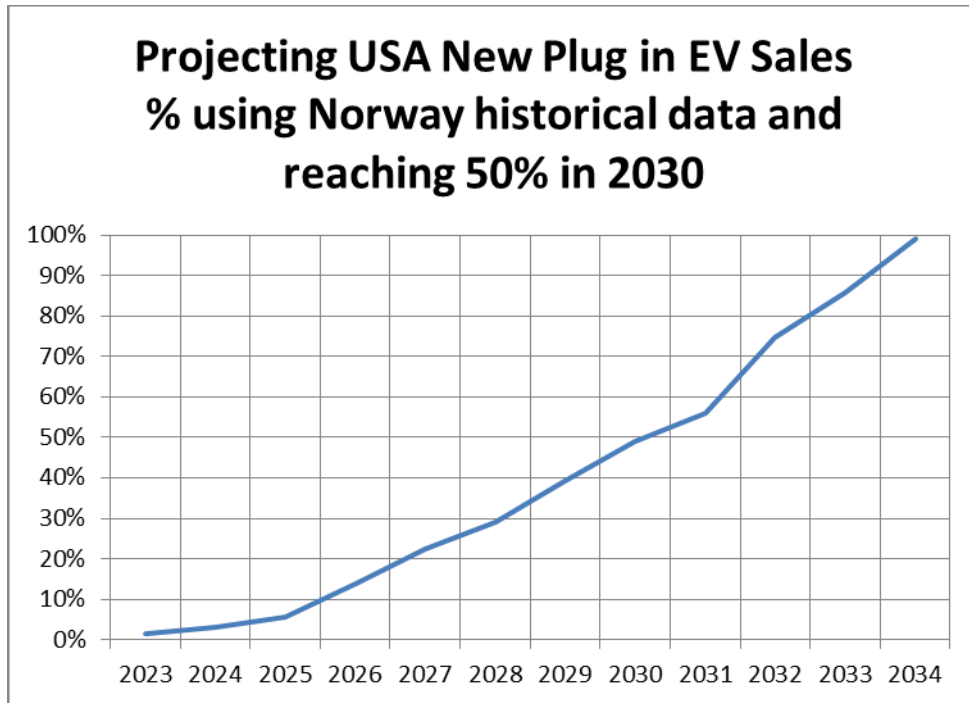


Figure 9 A projection of a USA possible rate of transition from ICE light duty vehicles to plug in LDVs created by shifting the actual Norway transition curve so the year Norway achieved 50% new car sales of plug-ins is centered on the year 2030.

The average age of cars in the USA fluctuates around 12 years. To maintain this average age, 1/12<sup>th</sup> of the fleet are replaced with new cars every year. In August 2021 the registered number light duty vehicles in Palm Beach County was 1,082,257 (See Fig. 9). The following chart is a rough guess of the number of new plug-ins needed to be bought by PBC residents to reach the goal of 50% new light-duty vehicles sold in 2030

Projecting PBC New Plug -In Sales numbers using Norway historical data to reach 50% in 2030				
Year	PBC Registered light duty vehicles	Total new car sales as % of registered cars	% of new light duty vehicle sales that are plug-ins	Estimated # of plug-ins vehicles sold each year
	est. increase 20,000 per year	1/12= 8.5%	Norway's curve	Col 2*Col 3*Col 4
2023	1,120,000	8.5%	1.60%	1,523
2024	1,140,000	8.5%	3.10%	3,004
2025	1,160,000	8.5%	5.60%	5,522
2026	1,180,000	8.5%	13.80%	13,841
2027	1,200,000	8.5%	22.40%	22,848
2028	1,220,000	8.5%	29.10%	30,177
2029	1,240,000	8.5%	39.20%	41,317
2030	1,260,000	8.5%	49.10%	52,586

Figure 10 A guess at the number of new plug-ins needed to be bought and sold to reach the White House goal in PBC.

If in 2030 new car sales are 50% plug-ins, this will cumulatively total only 13% of the cars on the road. Therefore 87% of light duty vehicles on the road will still be gasoline and diesel powered. Based on the Norway curve, in 2034 it is likely 100% of new light duty vehicles sold would be plug-ins. In 2034 still 62% of the cars on the road will be the older ICE propelled. Except for registered antiques, all cars on the road in 2042 will likely be plug-ins.



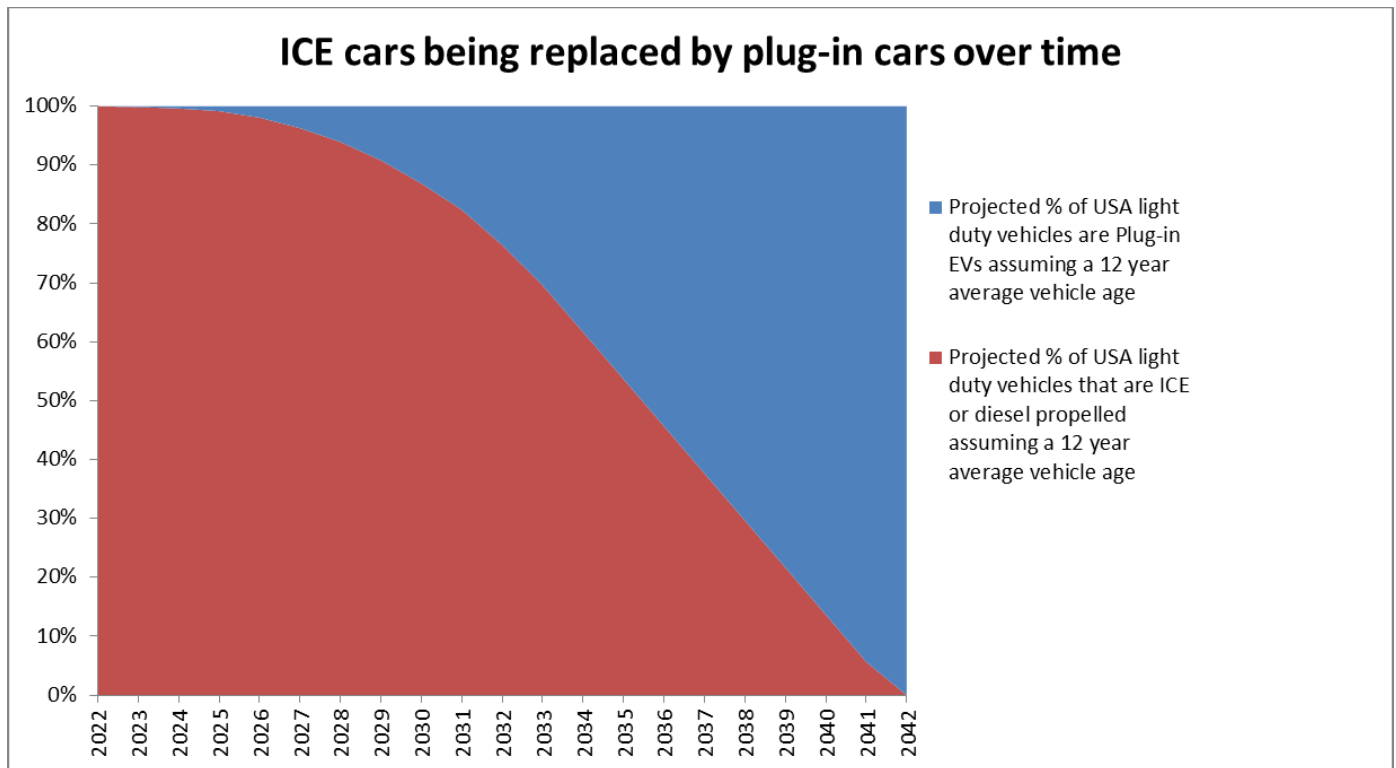


Figure 11

A current report<sup>17</sup> states 69 percent of US consumers expect their next vehicle to be ICE powered, 22 percent some sort of hybrid and only five percent are interested in buying a BEV. As estimated on the graph, by the time the 27 percent of the US consumers who want plug in vehicles actually have them, ten years will have past and it will be 2032. The coming decade will be ten years of increasing global warming and environmental destruction, and ten years of improving BEV technology. Therefore in ten years it is likely 100% of US consumers will expect their next car to be a BEV.

As ICE cars disappear from our roads so does the greenhouse gas pollution they spew. The curve of the Fig. 10 graph also represents how today's Palm Beach County's 5 million tons per year of CO2 pollution generated by cars could go to zero in 20 years.

Fossil fuel advocates make the assertion switching from ICE propulsion to BEVs does little to reduce greenhouse gas emissions because the electricity used to charge the batteries in light vehicle is generated by dirty fossil fuels power plants and therefore all that is happening is the source of pollution has been shifted, but not reduced. Therefore there is no point in establishing government policy to speed up the switch to BEVs and other plug-ins. This argument is pure sophistry. The technology to rebuild the electric grid completely fossil fuel

<sup>17</sup> <https://www.roadandtrack.com/news/a38698676/does-anyone-want-an-electric-car/>

free is here. It is not happening quickly because of politicians such as Senator Joe Manchin(DEM WV) who are slow walking change apparently to protect the owners of fossil fuel assets (such as his son) from losing money from “stranded resources.” Nevertheless, the economic reality that electricity produced by solar and wind power with battery backup is cheaper and more reliable than electricity produced by fossil fuels is slowly winning out<sup>18</sup>. This year (2022) 14.9 gigawatts (GW) of electric generating capacity is scheduled to be retired. Of this amount 85% are coal-fired power plants and 8% natural gas.<sup>19</sup> By the time significant numbers of plug-ins are on the roads, a significant amount of the electricity they use will be from fossil fuel free sources.

## Where Palm Beach County is now

### Number of Plug-In light duty vehicles

Determining the number of plug-in vehicles currently on the road in Palm Beach County is difficult. The State of Florida provides no citizen accessible information.

#### Current Registered Vehicles

Based on registrations having no expiration date or expiring on/after August 01, 2021

Update Frequency: Monthly

Data Refreshed: 8/8/2021

County Name	Vehicle Type Desc									Grand Total
	AUTOS & PICKUPS	HEAVY TRUCKS	MOTORCYCLE	BUS	TOOLS	VESSEL	VEHICLE TRAILER	TRAVEL TRAILER	MOBILE HOME	
Grand Total	16,212,272	1,701,797	638,883	58,423	6,483	928,153	2,032,876	218,219	1,084,929	22,882,035
ALACHUA	176,837	19,061	7,326	990	90	9,897	28,930	2,665	13,120	258,916
BAKER	18,409	4,156	688	194	7	2,102	5,970	853	4,722	37,101
BAY	134,750	22,046	7,610	406	66	15,102	30,700	3,650	13,321	227,651
BRADFORD	18,229	4,324	822	119	11	1,980	7,059	675	4,944	38,163
BREVARD	476,837	48,379	26,999	1,236	210	32,761	64,070	8,387	25,266	684,145
BROWARD	1,555,047	113,824	41,917	5,303	554	43,295	73,282	4,987	20,272	1,858,481
PALM BEACH	1,082,257	88,725	31,974	2,968	247	38,078	78,138	6,223	19,266	1,347,876
PASCO	403,464	40,832	19,335	1,143	91	23,002	55,596	11,954	47,724	603,141
PINELLAS	712,890	60,248	31,477	2,478	321	48,230	70,421	8,473	51,821	986,359

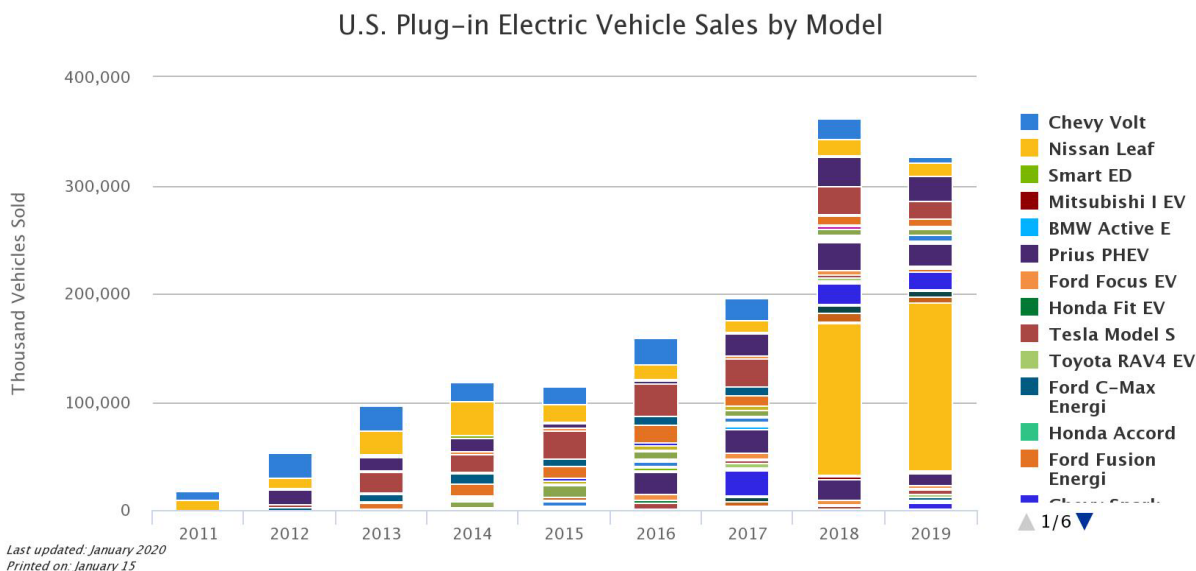
Figure 12 Generic Vehicle registration data available on the Florida Department of Highway Safety and Motor Vehicles website. No spreadsheets by make, model, propulsion, or new monthly registrations.

<sup>18</sup> Not in the scope of this report. This is one representational source.

<https://cleantechnica.com/2022/01/12/happy-hours-energy-storage-could-support-the-grid-every-hour-of-the-day-all-year-long/>

<sup>19</sup> <https://cleantechnica.com/2022/01/11/coal-will-equal-85-of-u-s-electric-generating-capacity-retirements-in-2022/>

This graph from the US Department of Energy is the kind of data needed. Unfortunately the data has not been updated for two years and is not broken down by counties.



**Figure 13** The type of information needed for accurate measurements in PBC. From the US Department of Energy Alternative Fuels Data Center. Last updated two years ago. <https://afdc.energy.gov/data/> The big yellow segment causing the 85% total sales jump in 2018 is 139,782 Tesla Model S.

The company evadoption.com may sell you the information:

EV Market Share by State - EVAdoption.com

EV SALES / MARKET SHARE | CURRENT / FUTURE EV MODELS | CHARGING STATS | RESOURCES | SERVICES

### EV MARKET SHARE BY STATE

The sortable tables below includes sales of electric vehicles (PHEV and BEV) and the total EV market share (percent of EVs sold of total light vehicles sold within each state) for all 50 US states and Washington, D.C. — for the year 2019.

Looking for BEV, PHEV, hybrid, and fuel cell vehicle sales by state for the years 2001-2020? EVAdoption has this data and state market share for 2013-2020 available for sale and download — visit our EVStatistics.com site for [more information](#), a [sample screenshot](#) and to [purchase](#).

State	2019 BEV Sales	2019 BEV Market Share	2019 PHEV Sales	2019 PHEV Market Share	EV (BEV & PHEV) Share	EV (BEV + PHEV) Sales
Alabama	722	0.37%	285	0.15%	0.52%	1,007
Alaska	87	0.35%	56	0.23%	0.58%	143
Arizona	6,637	2.20%	954	0.32%	2.52%	7,591
Arkansas	370	0.31%	168	0.14%	0.45%	538
California	100,549	5.16%	44,471	2.28%	7.44%	145,020
Colorado	7,124	2.25%	1,883	0.60%	2.85%	9,007
Connecticut	2,383	1.41%	927	0.55%	1.96%	3,310
Delaware	579	1.25%	243	0.52%	1.77%	822
District of Columbia	726	3.87%	289	1.54%	5.41%	1,015
Florida	13,137	1.08%	2,657	0.22%	1.30%	15,794
Georgia	4,227	1.00%	911	0.21%	1.21%	5,138

**Figure 14** Screenshot from <https://evadoption.com/ev-market-share/ev-market-share-state/>

Atlas EV HUB seems to be trying to plug the information hole of State and Federal agencies: “One of the objectives of the Atlas EV Hub is to demonstrate the effectiveness of collaboration. We believe that through crowdsourcing and other data sharing practices, organizations can be more effective by spending their time on consuming and interpreting data rather than collecting it.

Through the Open Vehicle Registration Initiative, Atlas is working with states directly to make data on electric vehicle registrations publicly accessible. This page contains the data from states participating in the initiative in some form. If you’re interested in learning more or helping out, please send an email to [info@atlasevhub.com](mailto:info@atlasevhub.com).” Quote from <https://www.atlasevhub.com/materials/state-ev-registration-data/>

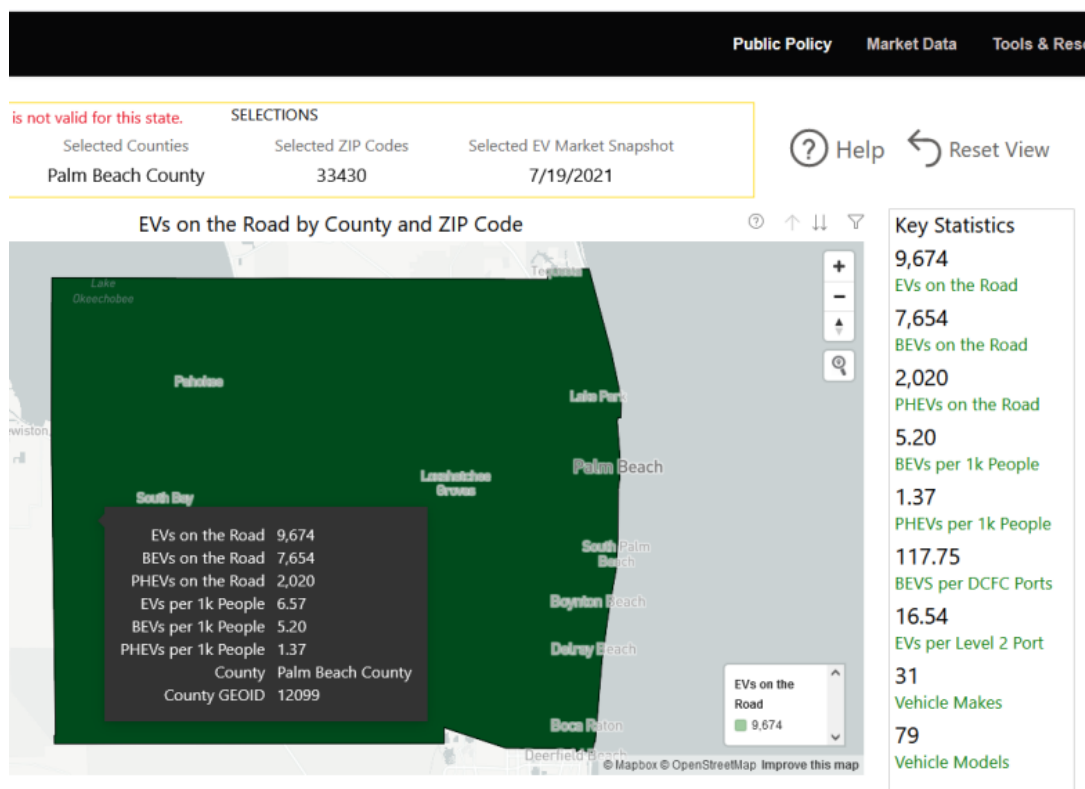


Figure 15 Current number of Plug-in vehicles in PBC is about 9,700

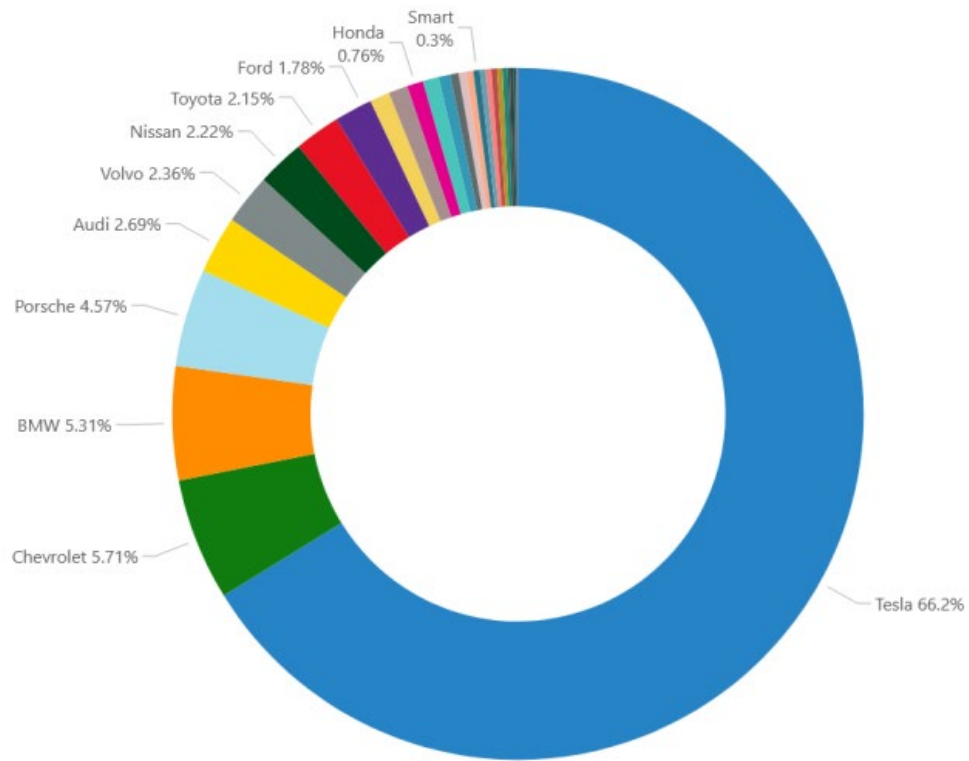


Figure 16 2/3s of plug in vehicles in PBC are Teslas

## Number of public/private charging stations

The number of plug-in charging stations in PBC is hard to estimate. If you google “electric vehicle charging stations” you will likely end up with a map:

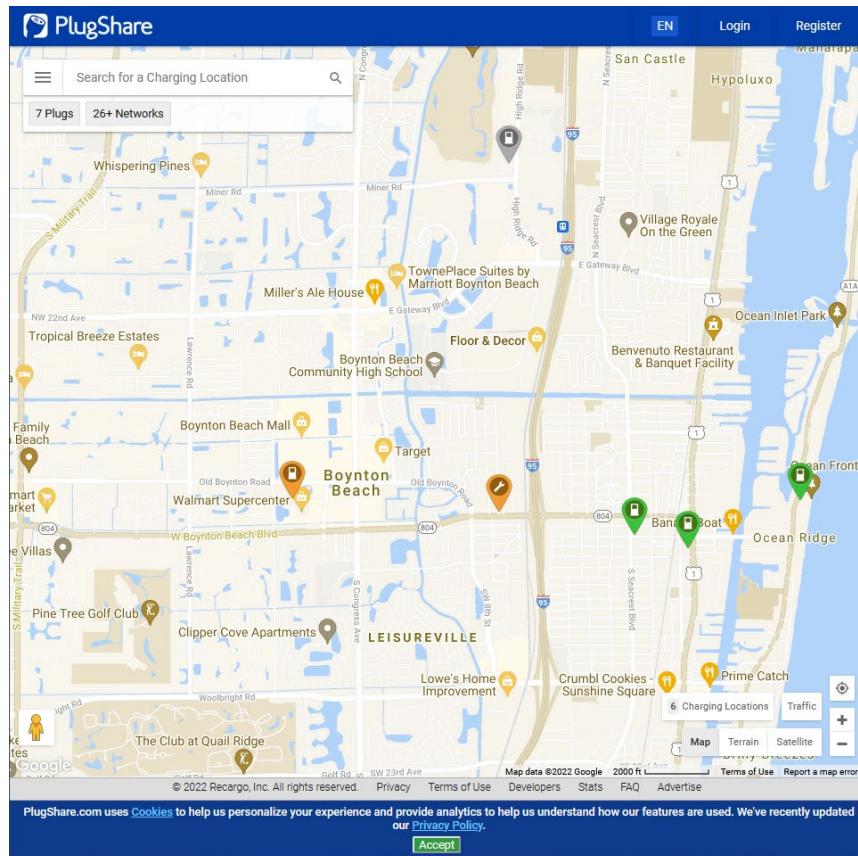


Figure 17 The results of an internet search for public BEV charging stations

The Lake Worth Turnpike Service Plaza is probably the largest charging station in Palm Beach County. It has eight Tesla charging stations and six FPL charging stations for a total of fourteen. As the Googlemap screenshot shows, the charging location is well positioned for easy expansion to the north. A consideration is the safety of placing high DC voltage near gasoline fumes. The EV charging stations are at least 60 feet from the Gulf service station gasoline pumps. On a different subject concerning Global Warming sea rise and hurricane storm surges. According to Google Earth this service plaza is 8.5



miles inland from the Atlantic Ocean and the drainage ditches are still only 20 feet above sea level.

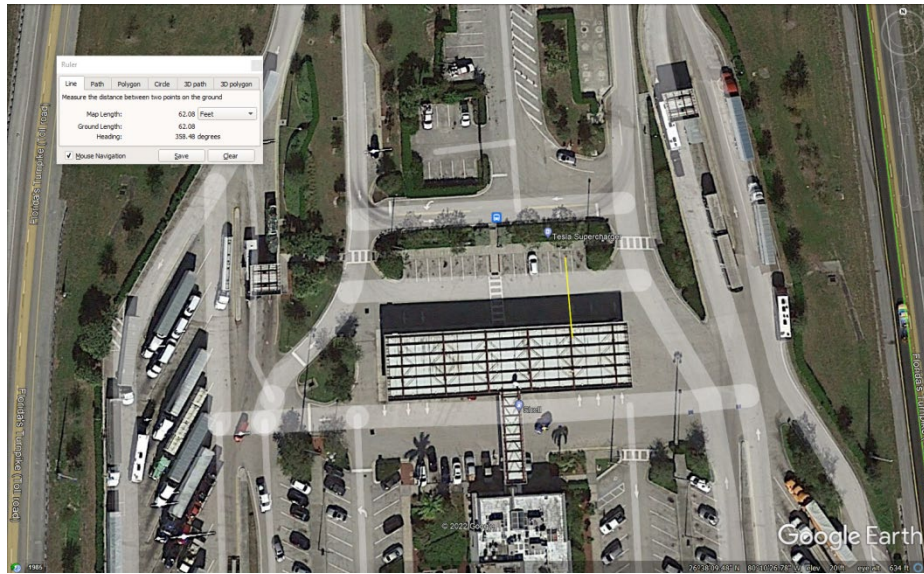


Figure 18 BEV charging station at the Florida Turnpike Lake Worth service plaza Picture source: Google Earth



Figure 19 Plug in charging station at Florida Turnpike Lake Worth Service Plaza on the east side looking west



Figure 20 BEV charging station Florida Turnpike Lake Worth service plaza west end looking east.



Figure 21 Electrical equipment for BEV charging station at Florida Turnpike Lake Worth service plaza from north side looking south. This area could easily be used to double the charging stations when needed. Gulf service station in the background with gasoline pumps approximately 60 feet away.



## Proactive Local Government Plug-In Policy

Boynton Beach is establishing BEV charging points and provides rebates to City residents of \$250 to \$500 for home installations of an EV charger.

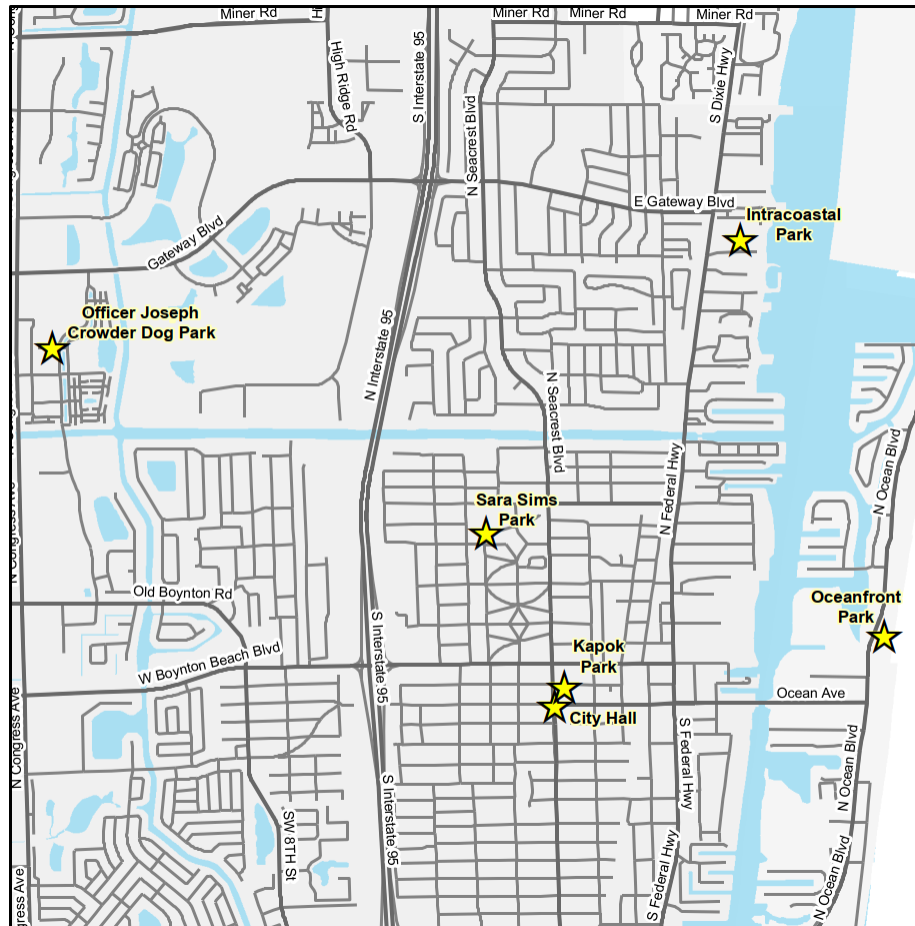


Figure 22 City of Boynton Beach BEV charging stations on City property. Note the Fig 16 map does not show the same charging stations.

## Ideas for Municipalities and the County Commissions

The Southern Alliance for Clean Energy has written an on line manual titled “Electrify The South: Policy Toolkit for Local Governments to Accelerate Electric Vehicles”<sup>20</sup> Its sections include:

- 1) Create an Overarching Transportation Electrification Plan
- 2) Establish EV Municipal Fleet Goals

<sup>20</sup> [https://docs.google.com/document/d/1I7Lok\\_3g1\\_J-ZqdsHdIIHq28Q7v2HWEiLuCPX3aF7mU/edit#](https://docs.google.com/document/d/1I7Lok_3g1_J-ZqdsHdIIHq28Q7v2HWEiLuCPX3aF7mU/edit#)

- A. Procurement Goals
- B. Model Green Fleets
- C. The Climate Mayor's EV Purchasing Collaborative
- 3) Establish EV Public Transportation Goals
  - A. Electric Transit Buses
  - B. Electric School Buses
  - C. New and Emerging Shuttle Services with EVs
  - D. Consult with your Local Utility
- 4) Promote EV Charging Access & Infrastructure
  - A. Applications of City/County-Owned Charging Infrastructure
  - B. Policies to Enable Private Sector Charging Infrastructure Deployment
  - C. Best Practices to Support Charging Infrastructure
- 5) Establish Education and Outreach Initiatives
  - A. Consumer Education and Informational Materials
  - B. Outreach Events
- 6) Promote Economic Development by Investing In Electric Transportation
  - A. City EV Charging Station Incentives
  - B. Engage Economic Development Offices
  - C. Strategic Charging Incentives for EVs
  - D. EV Group Buy Program
- 7) Expand Equity and Access
  - A. Charging Access for Frontline Communities
  - B. Outreach Events in Frontline Communities
  - C. Prioritize Frontline Communities for Electrification
  - D. Voucher, Low-Interest Financing, Point of Purchase Rebates, and Used EV Rebates for Low-Income Drivers
  - E. Carshare Programs
- 8) Engage Your Local Utilities
  - A. EV Charging Infrastructure
  - B. Utility Incentives
  - C. Utility EV-Friendly Rates
  - D. Utility EV Charger Programs
- 9) State Actions
  - A. Leading by Example Master Planning
  - B. State Policies
  - C. Best Practice Standards
- 10) Case Studies
  - A. Columbus, Ohio
  - B. Seattle, Washington
  - C. Denver, Colorado
  - D. Minneapolis, Minnesota

The overall length of the manual is 30 pages. However, there are many links to further information and case studies. Several links are to initiatives and projects in Florida including two from Palm Beach County: Palm Beach and Boynton Beach.

In the Southern Alliance for Clean Energy comprehensive manual there is a conspicuous omission. The most effective strategy Norway used to increase plug-in sales was to manipulate the tax code so with comparable car models the plug-in version was slightly cheaper than the ICE version (see Appendix 2). The most effective lever of this type Palm Beach County has would be to waive the PBC 1% sales tax for Plug-in light duty vehicles. Similarly the State of Florida could waive the 6% sales tax (as it already does for school supplies, food, medicine, etc.). On a national level a carbon tax on the 5 tons of CO<sup>2</sup> each ICE vehicle produces per year would be equitable.

## Conclusion and recommendations

Global warming is regarded as a ghost crisis because it does not register on our senses and its affects appear long after the causes. Therefore a united response commiserate to its existential threat to our way of life has yet to occur.

The Palm Beach County Transportation Planning Agency or a similarly configured agency is the best positioned political entity in Palm Beach County to coordinate a response to Global Warming. Recommendations to the Governing Board:

- 1) Task the Technical Advisory Committee to perform an in depth review of the coming disruptive switch from ICE to BEV light duty vehicles and make recommendations as needed. An example of this would be to develop recommendations for City governments on how to start buying BEVs for their fleets by using piggy back contracts and 3<sup>rd</sup> party leasing to qualify for Federal incentives.
- 2) Form a sub committee headed by Governing Board members and composed of representatives from Agency staff, the Technical Advisory Committee and the Citizen Advisory Committee to consider the future direction of the Transportation Planning Agency with regards to Global Warming including consider changing the Agency name back to the more broadly construed Metropolitan Planning Organization or start planning for a new agency.
- 3) Make an inter-Agency request to the Florida Department of Highway Safety and Motor Vehicles that an accessible report be maintained categorizing PBC vehicle registrations by make, model and propulsion type.
- 4) The Governing Board wearing their other hats as City Commissioners, Mayors and County Commissioners should reactivate the initiative to establish an accurate accounting of the amount of greenhouse gas pollution generated by Palm Beach County.

## Appendix 1: BEV vs ICE

### Acceleration

A *Car and Driver* magazine article from January 2021 highlights the \$3 million dollar Bugatti Chiron as the new holder of the world record for the quarter mile with a time of 9.4 seconds<sup>21</sup>.

In June 2021 the Bugatti Chiron record was broken by...Jay Leno. He drove the quarter mile in 9.247 seconds with a tri-motor Tesla Model S Plaid<sup>22</sup>. This car retails for at \$130,000 which means for the same \$3 million dollar cost of a Bugatti Chiron, a person could buy 23 faster Teslas.

And of course it trickles down from there. Dodge recently announced it is ending its Hellcat production. Muscle cars are losing to Teslas on every drag strip in the country.

<https://www.youtube.com/watch?v=u2Ps06tS5Lg>

<https://www.youtube.com/watch?v=Nn4VO9iVVgg>

### SPACE

An ICE car is built around the huge engine and transmission. Electric cars have much more flexibility because the electric motor is much smaller. This allows the electric motors to be tucked in with the skateboard design which has a much more flexible design and feels roomier than ICE cars with the traditional transmission and drive train hump.



Figure 23 Classic ICE V8 Source: <https://www.proformanceunlimited.com/shop/chevy-engines/454-ci-bbc-crate-engine-550hp/>

<sup>21</sup> "Bugatti Chiron Is Now the Quickest Car We've Ever Tested: It's never been easier to join the 200-mph club" by Tony Quirog published January 1, 2021 (<https://www.caranddriver.com/news/a35105452/bugatti-chiron-tested-quickest-car-ever/>)

<sup>22</sup> <https://www.roadandtrack.com/news/a36715189/jay-leno-production-quarter-mile-record-tesla-model-s-plaid/>



Figure 24 One example of the BEV skateboard design. Source: <https://insideevs.com/news/450534/tesla-leaves-skateboard-design-new-structural-battery-packs/>

Electric car designs for even more usable room are being researched. One idea is integrate the battery pack into the frame by using battery components as load bearing structures<sup>23</sup>.

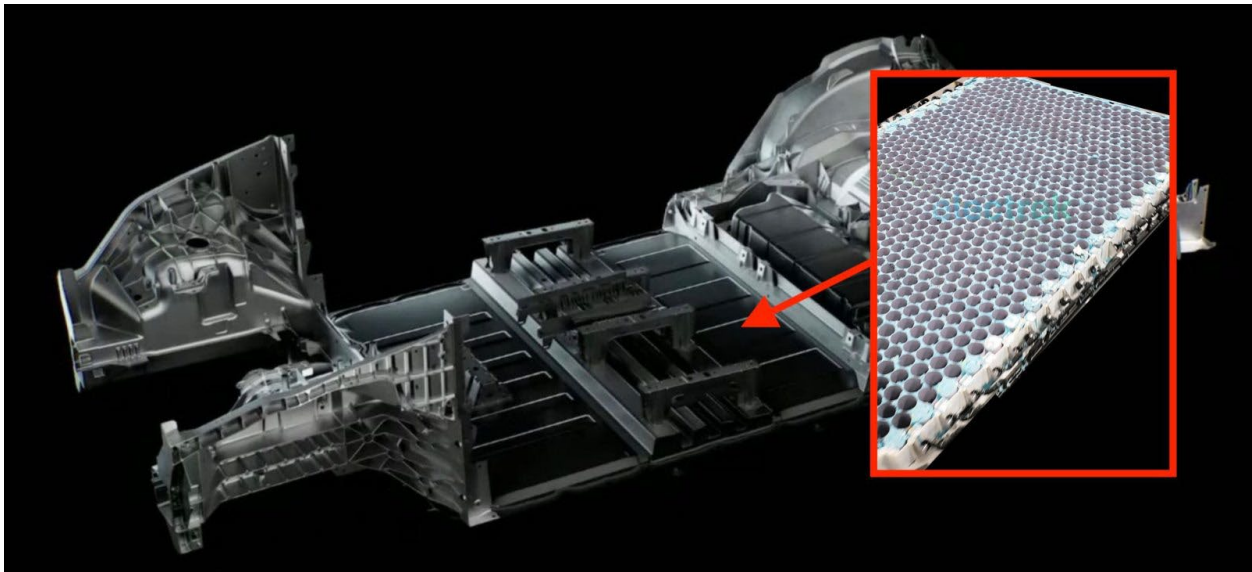


Figure 25 <https://electrek.co/2021/01/19/tesla-structural-battery-pack-first-picture/>

<sup>23</sup> <https://www.reuters.com/business/autos-transportation/next-step-evs-design-batteries-strengthen-car-extend-range-2021-07-23/>

## Handling

Electric cars typically handle better than ICE cars because their center of gravities are lower to the ground (skateboard battery packs vs high and bulky IC engines).

<https://www.autoblog.com/2018/11/24/tesla-model-3-137-mph-spinout-bonneville/>

## Cornering

This article (<https://policedriver.com/the-difference-between-handling-and-cornering/>) explains the orthodox definition of cornering : “When testing vehicles, most car magazines measure cornering capability by driving a vehicle around a skid pad, which is a circle with a known radius. The driver will increase the vehicle’s speed until they cannot keep the vehicle centered on the radius.”

Skid pad video: <https://www.youtube.com/watch?v=xhe3UIH3Wak> This video starts out a little cheesy and some may find it offensive. However, the author really knows how to drive and the video ends with clear examples of how cornering works.

The definition of cornering will have to be rewritten for electric vehicles. The computers which run the cars allow so much more. The GMC Hummer EV introduces “crabwalk”, has four wheel steering, and a new extraction mode which raises the body 6 inches to clear obstacles (will the Humvee be able to do low rider bouncing?).

<https://www.youtube.com/watch?v=rzGIVG75kUM>

The companies Elaphe and Protean Electric are developing in wheel electric motors. With a motor in each wheel the phrase, “turns on a dime” becomes a reality as wheels on one side of the car spin forward and the opposite spin backwards. Elaphe accurately named this “tank turn”: [https://www.youtube.com/watch?v=al\\_NZHnuu0g](https://www.youtube.com/watch?v=al_NZHnuu0g)

A recent video with great visuals explaining in-wheel electric motors.

<https://www.youtube.com/watch?v=yS3w2ljkzU>

Viewing a youtube video from a document seems to be a two step process. Clicking on the link may only open a tab for youtube, but not the specific video. To view the correct video copy the link and paste it into the youtube tab.

## Maintenance

<https://www.motortrend.com/news/government-ev-ice-maintenance-cost-comparison/>



<https://www.consumerreports.org/car-repair-maintenance/pay-less-for-vehicle-maintenance-with-an-ev/>

## Fuel cost

To compare apples to apples and make it easier for citizens to understand costs, the Federal Department of Energy's Office of Energy Efficiency and Renewable Energy has developed the eGallon tool<sup>24</sup> which "represents the cost of driving an electric vehicle (EV) the same distance a gasoline-powered vehicle could travel on one (1) gallon of gasoline." It does not seem to have the most latest costs on record<sup>25</sup>.

Perhaps a clearer explanation is the average electric car uses 34.6 kiloWatt hours (kWh) to travel 100 miles<sup>26</sup>.

FPL charges 10.99 cents per kWh for residential accounts<sup>27</sup>.

If an electric vehicle is charged at home and the home has no solar panels, the fuel cost per 100 miles is

$$34.6 \text{ kWh per 100 miles} \times \frac{\$.1099}{\text{kWh}} = \$3.80 \text{ per 100 miles}$$

A 25 miles per gallon sedan uses 4 gallons of gasoline to travel 100 miles<sup>28</sup>.

Current gas prices in Palm Beach County are approximately \$3.35 per gallon<sup>29</sup>.

$$4 \text{ gallons of gasoline per 100 miles} \times \frac{\$3.35}{\text{gallon of gasoline}} = \$13.40 \text{ per 100 miles}$$

Therefore, if you charge an EV at a residence using FPL supplied electricity, the savings in fuel cost is \$9.6 per 100 miles.

If an EV is charged at a home which has enough solar panels, then the daily commute fuel costs are zero.

If you charge an EV on a road trip the kWh cost from a vendor is hard to reliably estimate at this time. One source lists \$0.28 per kWh for Tesla Supercharger stations.<sup>30</sup>

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<sup>24</sup> <https://www.energy.gov/maps/egallon>

<sup>25</sup> <https://www.energy.gov/eere/vehicles/articles/fotw-1186-may-17-2021-national-average-cost-fuel-electric-vehicle-about-60>

<sup>26</sup> <https://ecocostsavings.com/average-electric-car-kwh-per-mile/>

<sup>27</sup> <https://www.fpl.com/content/dam/fpl/us/en/rates/pdf/res-may-2021.pdf>

<sup>28</sup> <https://www.edmunds.com/fuel-economy/the-truth-about-fuel-consumption.html>

<sup>29</sup> <https://www.gasbuddy.com/gasprices/florida/boynton-beach>

<sup>30</sup> <https://www.motorbiscuit.com/how-much-does-it-cost-tesla-supercharger/>

## Range

Driving range between charges is not a concern for those who actually own and drive BEVs. It still seems to be a concern for ICE car owners who are contemplating getting a BEV. The steadily increasing range of BEVs:

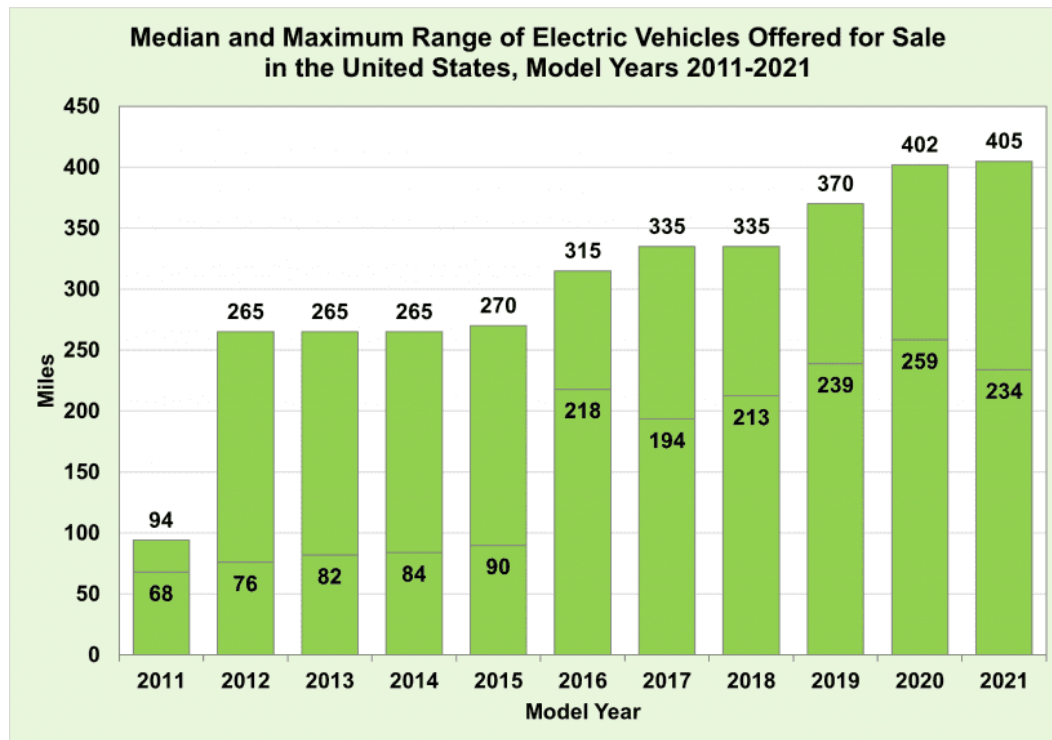


Figure 26 When modern all-electric vehicles (EV) were introduced in model year (MY) 2011, there were four models available with ranges spanning from 63 to 94 miles, with a median range of 68 miles. Over time, the number of models and the ranges of EVs have increased. By MY 2021 the maximum range of an EV had more than quadrupled to 405 miles on a single charge, while the median range was 234. Source: <https://cleantechnica.com/2022/01/10/in-2021-electric-vehicle-model-in-usa-with-longest-range-was-rated-405-miles-on-a-single-charge/>

The longest range cars in 2020:

- 2020 Model S Long Range — 402 miles
- 2021 Model X Long Range — 371 miles
- Tesla Model 3 Long Range — 322 miles
- Tesla Model Y AWD — 316 miles
- Tesla Model 3 Performance — 299 miles
- Tesla Model Y Performance — 291 miles
- Chevy Bolt — 259 miles
- Hyundai Kona Electric — 258 miles
- Tesla Model 3 Standard Range Plus — 250 miles
- Kia Niro EV — 239 miles



Nissan LEAF PLUS — 229 miles

Source: <https://cleantechnica.com/2020/10/15/which-electric-vehicles-have-the-longest-range/>

## Nissan LEAF Range Evolution

Range on a full charge (in miles).

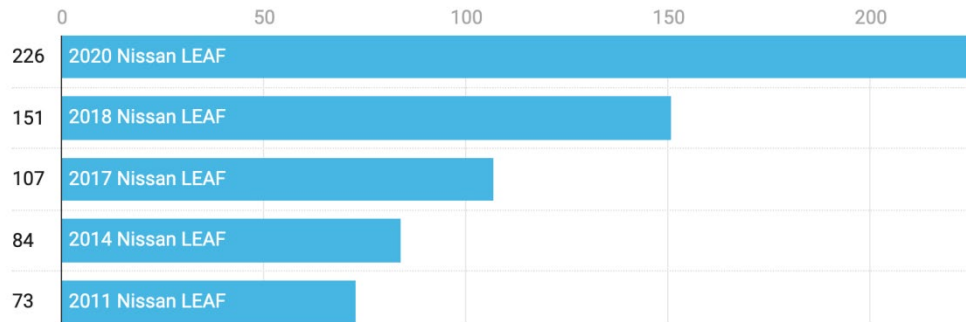


Chart: CleanTechnica • Source: CleanTechnica / EPA

Figure 27 The tripling in range of the Nissan Leaf from 2011 to 2020 is an example of the steady evolution of EV battery packs. Source: <https://cleantechnica.com/2020/10/15/which-electric-vehicles-have-the-longest-range/>

The one charge range performance will continue to improve. However, car makers are now looking for a sweet spot of an optimum range so smaller battery packs can be installed to reduce the sale price.

Examples of continuing research and improvements:

1. Our Next Energy (ONE), a two-year-old Michigan startup, retrofitted a Tesla Model S with its batteries and drove 752 miles on a single charge.  
<https://www.caranddriver.com/news/a38668912/750-mile-ev-battery-michigan-startup-our-next-energy/>
2. Another battery advance from the State of Michigan. Lithium-sulfur batteries potentially have 4 times the energy density of the current Lithium-Ion batteries. But sulfur chemistry batteries degrade too quickly. This is an article on how the material from recycled Kevlar

## Safety

Tesla autopilot dodging cars, trucks, a wild pig, and a mountain lion (not a large bobcat).

<https://www.youtube.com/watch?v=bUhFfunT2ds>

<https://www.youtube.com/watch?v=2On4Msc2yNA>

This is a biased sales video. It gives a sense of the dynamic flux and creativity going on in the BEV industry right now and foreshadows how BEVs are safer and will continue to get safer when compared to ICE cars. <https://jalopnik.com/watch-teslas-and-audis-and-other-cars-smack-into-fake-k-1848316218>

A British take on Tesla Model X with some thoughts on safety.

<https://www.youtube.com/watch?v=0ssucYoYtYE>

Electric school buses are safer than ICE school buses

<https://insideevs.com/news/553225/electric-school-bus-moose-test/>

## House/BEV battery storage

When poor electric grid maintenance plus global warming induced droughts resulted in gigantic wildfires many homes in California lost power. A couple of people figured out how to hack their Tesla battery to provide electric power to their home. This is now becoming a feature for BEVs. This video has a little tongue-in-cheek. Buy a Ford Charge Station Pro... Pick up truck included.

<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=video&cd=&cad=rja&uact=8&ved=2ahUKEwjwwfnm5J32AhXTVTABHQE8A3gQtWJ6BAGFEAI&url=https%3A%2F%2Fmedia.ford.com%2Fcontent%2Ffordmedia%2Fna%2Fus%2Fen%2Fnews%2F2022%2F02%2F02%2Ff-150-lightning-power-play.html&usg=AOvVaw2hYdG3o6WtfX9dyovjwclH>

Of course Tesla was there first. <https://insideevs.com/news/569986/tesla-home-charger-tops-jdpower/>

## Battery primer

While the White House Executive Order lists “....zero-emission vehicles, including battery electric, plug-in hybrid electric, or fuel-cell electric vehicles.”, an underlying assumption of this paper is by 2030 the only rival to ICE vehicles left standing will be Battery Electric Vehicles. There are many shortcomings ICE proponents tout about EV batteries: inadequate energy density resulting in less than desirable range, expensive materials, the source of some scarce materials is in countries with corrupt and unstable governments, flammability (as a retired Fire Lieutenant/Paramedic I can emphatically state this is a case of the pot calling the kettle black), reduced energy in cold climates, recyclability and the length of charging time are the most repeated issues.

Every issue listed is either a myth or based on outdated knowledge. Each concern is being addressed by multiple players around the world and solutions in the laboratory are being fast tracked for commercial utilization. By the time other options such as hydrogen powered ICE cars are commercially competitive for the 2022 type market, BEVs will have moved the goal posts. The amount of research on batteries going on around the world is a quantum leap more than research on all the alternatives combined.

These recent news articles are a sample of evolving battery dominance:

<https://carnewschina.com/2022/01/13/catl-new-patent-allows-anode-free-sodium-ion-battery-density-to-go-above-200wh-kg/>

<https://www.caranddriver.com/news/a38668912/750-mile-ev-battery-michigan-startup-our-next-energy/>

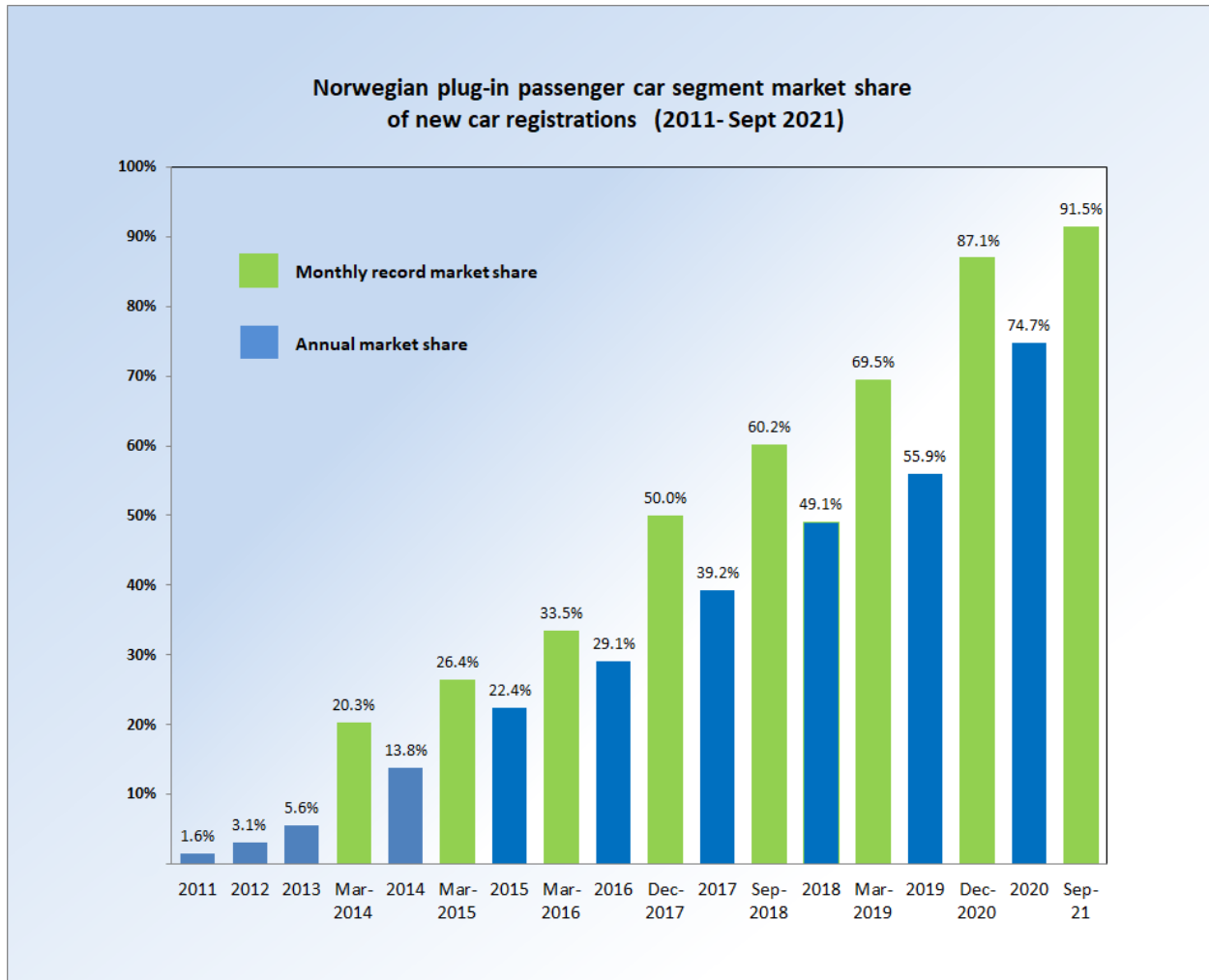
<https://www.caranddriver.com/news/a38668912/750-mile-ev-battery-michigan-startup-our-next-energy/>  
<https://insideevs.com/news/557776/tesla-2000miles-using-ea-chargers/>  
<https://newatlas.com/energy/best-battery-energy-breakthroughs-2021/>  
<https://www.torquenews.com/14093/tesla-18650-2170-and-4680-battery-cell-comparison-basics>  
<https://www.pv-magazine.com/2022/02/11/a-4000-cycle-lithium-sulfur-battery/>  
<https://www.autoweek.com/news/technology/a39001430/mercedes-benz-prologium-solid-state-battery/>  
<https://cleantechnica.com/2022/02/07/calculating-better-solid-state-batteries/>  
<https://www.motortrend.com/features/structural-battery-composites-automotive-ev-energy-storage/>  
<https://www.quantumscape.com/resources/blog/white-paper-a-deep-dive-into-quantumscapes-fast-charging-performance/>  
<https://www.teslarati.com/panasonic-tesla-4680-electric-vehicle-battery-production-investment/>  
<https://insideevs.com/news/564017/lucid-air-usable-battery-capacity/>  
<https://www.nanalyze.com/2022/01/ev-battery-stocks/>  
<https://d1softballnews.com/jeff-dahn-and-teslas-million-mile-battery-goes-beyond-electric-cars-technology-hybrids-and-electrics/>  
<https://www.inceptivemind.com/new-electrolyte-solid-state-lithium-ion-batteries/23385/>  
<https://www.resilientdesign.org/portable-battery-power-and-resilience/>  
<https://electriccarfaqs.com/how-to-select-battery-for-electric-car/>  
<https://electrek.co/2022/01/27/storedot-which-makes-ultra-fast-tesla-like-4680-battery-cells-develops-tech-to-extend-batteries-first-and-second-life/>  
<https://electrek.co/2022/01/25/gm-lg-giant-new-50-gwh-battery-cell-factory-us/>  
<https://batteriesnews.com/nanograf-energy-density-milestone-lithium-ion-battery-material-energy-dense/>  
<https://www.teslarati.com/tesla-battery-recycling-redwood-materials-100-gwh-goal/>  
<https://www.independent.co.uk/life-style/gadgets-and-tech/quantum-battery-breakthrough-paves-way-for-revolution-in-energy-storage-b1995425.html>  
<https://www.goodnewsnetwork.org/scientists-revitalize-batteries-bringing-dead-lithium-back-to-life/>  
<https://www.wired.com/story/the-us-inches-toward-building-ev-batteries-at-home/>  
<https://cleantechnica.com/2022/01/10/in-2021-electric-vehicle-model-in-usa-with-longest-range-was-rated-405-miles-on-a-single-charge/>  
<https://techxplore.com/news/2022-01-rubber-material-key-long-lasting-safer.html>  
<https://abcnews.go.com/International/wireStory/tesla-inks-deal-key-battery-component-china-82293464>

<https://www.mining.com/recycling-plant-aims-to-turn-us-coal-country-into-rare-earth-powerhouse/>  
<https://cleantechnica.com/2022/01/17/battery-resourcers-recycling-facility-will-open-in-august/>  
<https://cleantechnica.com/2022/01/11/the-role-of-annealing-in-improving-all-solid-state-lithium-battery-performance/>  
<https://cleantechnica.com/2022/01/16/stelco-will-recycle-ev-batteries-at-its-ontario-factory/>  
<https://www.inceptivemind.com/battery-breakthrough-membrane-quintuple-electric-vehicle-ranges/22945/>  
<https://carnewschina.com/2022/01/13/catl-new-patent-allows-anode-free-sodium-ion-battery-density-to-go-above-200wh-kg/>  
<https://investorplace.com/2022/01/sldp-stock-is-an-extremely-risky-wager-on-unique-ev-batteries/>  
<https://www.motortrend.com/features/long-range-cheap-quick-charging-ev-future/>  
<https://newatlas.com/energy/best-battery-energy-breakthroughs-2021/>  
<https://www.torquenews.com/14093/tesla-18650-2170-and-4680-battery-cell-comparison-basics>  
[overview of solid state batteries https://www.lexology.com/library/detail.aspx?g=b8b7684c-e0aa-4b0d-93e3-e24009859043](https://www.lexology.com/library/detail.aspx?g=b8b7684c-e0aa-4b0d-93e3-e24009859043)  
<https://www.energy-storage.news/norways-freyr-battery-signs-us3-billion-off-take-deal-with-energy-storage-industry-customer/>  
<https://www.cnn.com/2021/12/17/politics/lithium-mining-energy-climate/index.html>  
<https://www.tesmanian.com/blogs/tesmanian-blog/permanent-magnet-motor-with-wrapping>  
<https://insideevs.com/news/550025/lucid-air-fast-charging-review/>  
 And these links are representative of the dynamic improvements as BEVs pull away from ICE vehicles (there is some duplication of links already mentioned):  
<https://www.marketwatch.com/story/electric-vehicles-hit-a-pivot-point-as-battery-prices-fall-and-governments-get-behind-the-new-technology-11645105486>  
<https://www.visualcapitalist.com/comparing-the-carbon-footprint-of-transportation-options/>  
<https://cleantechnica.com/2022/02/08/january-german-plugin-ev-share-22-fiat-500-in-top-spot/>  
<https://cleantechnica.com/2022/02/07/nissan-to-end-internal-combustion-engine-development-sort-of/>  
[https://thetechxp.com/how-to-find-a-tesla-supercharger-and-tesla-supercharger-map/?\\_gl=1\\*nn6wtp\\*\\_ga\\*Nm0tRVNSeUhxRHFfUVBndDQxYzJwUGMtZ1cySDRUd1diaGFKR3ZMcGFaak5yQ2pHaC1EUkRNNjJCNE9zZFVWUA](https://thetechxp.com/how-to-find-a-tesla-supercharger-and-tesla-supercharger-map/?_gl=1*nn6wtp*_ga*Nm0tRVNSeUhxRHFfUVBndDQxYzJwUGMtZ1cySDRUd1diaGFKR3ZMcGFaak5yQ2pHaC1EUkRNNjJCNE9zZFVWUA)  
<https://www.cnet.com/roadshow/news/how-much-range-you-really-need-in-an-electric-car/>  
<https://www.motortrend.com/news/ree-automotive-boards-corners-ces/>

<https://www.motortrend.com/events/3-cool-new-electric-motor-technologies-ces-2022/>  
<https://cleantechnica.com/2020/10/15/which-electric-vehicles-have-the-longest-range/>  
<https://www.tesmanian.com/blogs/tesmanian-blog/tesla-model-y-body-built-for-structural-battery-pack-with-4680-cells-again-spotted-at-giga-texas>  
<https://insideevs.com/news/561034/tesla-models-plaid-accelerates-171mph/>  
<https://cleantechnica.com/2022/01/14/tesla-cold-weather-experiment-in-22f-31f-temperatures/>  
<https://www.roadandtrack.com/news/a38698676/does-anyone-want-an-electric-car/>  
<https://cleantechnica.com/2021/08/10/when-do-fossil-fuel-car-sales-collapse/>  
<https://insideevs.com/news/557776/tesla-2000miles-using-ea-chargers/>  
<https://cleantechnica.com/2021/02/27/electric-vehicle-market-share-trends-in-uk-netherlands-norway-china-germany-france-sweden/>  
<https://cleantechnica.com/2021/12/19/one-man-behind-the-white-house-effort-to-convert-federal-fleet-to-electric-vehicles/>  
<https://chargedevs.com/newswire/resonant-link-says-its-wireless-charging-tech-achieves-5-10-times-lower-power-losses-than-others/>  
<https://www.cnet.com/roadshow/news/brightdrop-opens-first-dealership-los-angeles/>  
<https://insideevs.com/news/553225/electric-school-bus-moose-test/>  
<https://jalopnik.com/watch-teslas-and-audis-and-other-cars-smack-into-fake-k-1848316218>  
<https://cleantechnica.com/2022/01/06/swedens-plugin-ev-share-breaks-new-records/>  
<https://www.caranddriver.com/news/a38668912/750-mile-ev-battery-michigan-startup-our-next-energy/>  
<https://insideevs.com/news/558447/norway-plugin-car-sales-december2021/>  
<https://insideevs.com/news/553225/electric-school-bus-moose-test/>  
<https://cleantechnica.com/2021/12/03/norway-again-over-90-plugin-ev-share-in-november-legacy-ice-at-record-low-5/>  
<https://cleantechnica.com/2021/10/26/how-many-jobs-will-disappear-with-switch-to-electric-cars/>  
<https://www.teslarati.com/rivian-amazon-delivery-van-official-name-specs/>  
<https://cleantechnica.com/2021/03/04/three-truths-about-electric-vehicles/>  
<https://www.bloomberg.com/news/features/2021-10-22/the-ev-disruption-that-nobody-s-talking-about>  
<https://finance.yahoo.com/news/more-expensive-charging-electric-vehicle-150723451.html>

## Appendix 2: The Norway success story

What President Biden has proposed for the USA by 2030, Norway achieved this benchmark in 2018. This beats the USA goal by 12 years.



By Mariordo (Mario Roberto Durán Ortiz) - Own work, CC BY-SA 4.0,  
<https://commons.wikimedia.org/w/index.php?curid=48177838>

How the Norwegians did it. The following is copied from <https://elbil.no/english/norwegian-ev-policy/> :

The Norwegian success story is first and foremost due to a substantial package of incentives developed to promote zero-emission vehicles into the market. The incentives have been gradually introduced by different governments and broad coalitions of parties since the early 1990s to speed up the transition.

The Norwegian Parliament has decided on a national goal that all new cars sold by 2025 should be zero-emission (electric or hydrogen). By the end of 2020, there were more than 330.000 registered battery electric cars (BEVs) in Norway. Battery electric vehicles held a 54 % market share in 2020. The speed of the transition is closely related to policy instruments and a wide range of incentives.

The current Government has decided to keep the incentives for zero-emission cars until the end of 2021. After 2021 the incentives will be revised and adjusted parallel with the market development. The VAT exemption for zero-emission vehicles in Norway has been approved by the EFTA Surveillance Authority (ESA) until the end of 2022.

#### The 50 % rule

Since 2017 it has been up to the local governments to decide the incentives regarding access to bus lanes and free municipal parking. The Parliament has agreed on implementing a 50 % rule, which means that counties and municipalities can not charge more than 50 % of the price for fossil fuel cars on ferries, public parking and toll roads. The 50 % rule is already in function on county ferries and state ferries but will also be implemented on toll roads in the course of 2019. A rule of maximum 50 % parking fee at public parking for zero-emission cars is expected to be implemented by many municipalities from 2019.

#### Charging infrastructure

For longer distance trips, a well-organized charging network has to be in place. As of January 2021, we have more than 330.000 EV's and 3.200 cars that can fast-charge at the same time. Even if EV owners are charging at home and manage without fast charging daily, they think it is essential to have the option to fast charge when needed.

Consumers are willing to pay a higher price for the service of fast charging. On average three times more than they pay for electricity at home.

By 2017 the Norwegian Government launched a program to finance the establishment of at least two multi-standard fast charging stations every 50 km on all main roads in Norway. There has successfully been established fast charging stations on all main roads in Norway.

#### The Norwegian car tax system

The overall signal from the majority of political parties is that it should always be economically beneficial to choose zero and low emission cars over high emission cars. This is obtained with «the polluter pays principle» in the car tax system. High taxes for high emission cars and lower taxes for low and zero-emission cars. Introducing taxes on polluting cars can finance incentives for zero-emission cars without any loss in revenues.

The Norwegian Parliament has decided on a goal that all new cars sold by 2025 should be zero (battery electric or hydrogen) emission vehicles. This is a very ambitious but feasible goal with

the right policy measures. The Parliament will reach this goal with a strengthened green tax system, not a ban.

The purchase tax for all new cars is calculated by a combination of weight, CO<sub>2</sub> and NO<sub>x</sub> emissions. The tax is progressive, making big cars with high emissions very expensive. For the last years, the purchase tax has been adjusted gradually to have more emphasis on emissions and less on weight.

The following example compares an EV model with a similar petrol model to illustrate how the Norwegian tax system makes EVs competitive in the market.

The Norwegian EV incentives:

- No purchase/import taxes (1990-)
- Exemption from 25% VAT on purchase (2001-)
- No annual road tax (1996-2021). Reduced tax from 2021.
- No charges on toll roads or ferries (1997- 2017).
- Maximum 50% of the total amount on ferry fares for electric vehicles (2018-)
- Maximum 50% of the total amount on toll roads (2019)
- Free municipal parking (1999- 2017)
- Parking fee for EVs was introduced locally with an upper limit of a maximum 50% of the full price (2018-)
- Access to bus lanes (2005-).
- New rules allow local authorities to limit the access to only include EVs that carry one or more passengers (2016)
- 50 % reduced company car tax (2000-2018).
- Company car tax reduction reduced to 40% (2018-)
- Exemption from 25% VAT on leasing (2015)
- Fiscal compensation for the scrapping of fossil vans when converting to a zero-emission van (2018)

Volkswagen Golf vs. e-Golf



	Volkswagen Golf	Volkswagen e-golf
Import price:	22 046	33 037
CO2 tax (113 g/km)	4 348	-
NOx tax:	206	-
Weight tax:	1 715	-
Scrapping fee:	249	249
25% VAT:	5 512	-
<b>Retail price:</b>	<b>34 076 €</b>	<b>33 286 €</b>

The progressive tax system makes most EV models cheaper to buy compared to a similar petrol model, even if the import price for EVs are much higher. This is the main reason why the Norwegian EV market is so successful compared to any other country.

## Appendix 3: How can 1 gallon of gasoline produce 20 pounds of Carbon Dioxide?

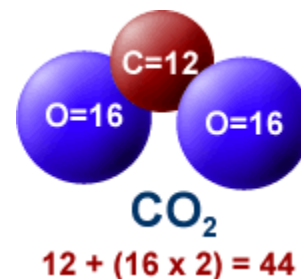
### *How can a gallon of gasoline produce 20 pounds of carbon dioxide?*

It seems impossible that a gallon of gasoline, which weighs about 6.3 pounds, could produce 20 pounds of carbon dioxide (CO<sub>2</sub>) when burned. However, most of the weight of the CO<sub>2</sub> doesn't come from the gasoline itself, but the oxygen in the air.

When gasoline burns, the carbon and hydrogen separate. The hydrogen combines with oxygen to form water (H<sub>2</sub>O), and carbon combines with oxygen to form carbon dioxide (CO<sub>2</sub>).

A carbon atom has a weight of 12, and each oxygen atom has a weight of 16, giving each single molecule of CO<sub>2</sub> an atomic weight of 44 (12 from carbon and 32 from oxygen).

Therefore, to calculate the amount of CO<sub>2</sub> produced from a gallon of gasoline, the weight of the carbon in the gasoline is multiplied by 44/12 or 3.7.



Since gasoline is about 87% carbon and 13% hydrogen by weight, the carbon in a gallon of gasoline weighs 5.5 pounds (6.3 lbs. x .87).

We can then multiply the weight of the carbon (5.5 pounds) by 3.7, which equals 20 pounds of CO<sub>2</sub>!

Data Sources [https://www.fueleconomy.gov/feg/contentincludes/co2\\_inc.htm](https://www.fueleconomy.gov/feg/contentincludes/co2_inc.htm)

Physical and chemical properties of gasoline: Department of Energy (DOE), Alternative Fuels Data Center (AFDC), [Properties of Fuels](#).

From the EPA Green Vehicle Guide:

“What are the average annual carbon dioxide (CO<sub>2</sub>) emissions of a typical passenger vehicle?

A typical passenger vehicle emits about 4.6 metric tons of carbon dioxide per year.

This assumes the average gasoline vehicle on the road today has a fuel economy of about 22.0 miles per gallon and drives around 11,500 miles per year. Every gallon of gasoline burned creates about 8,887 grams of CO<sub>2</sub>.<sup>31</sup> “

<sup>31</sup> <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle#typical-passenger>

Doing the math using the above DOE and EPA websites:

$$\frac{11,500 \text{ miles per year}}{22.0 \text{ miles per gallon}} = 523 \text{ gallons of gasoline per year}$$

$$523 \text{ gallons of gasoline per year} \times 8,887 \text{ grams of CO}_2 = 4,648 \text{ kilograms of CO}_2$$

1 kilogram = 2.2 pounds

2,000 pounds = 1 American ton

4,648 kilograms = 10,225 pounds = 5 American tons

Each typical passenger vehicle emits over 5 American tons of carbon dioxide per year.

Using the same steps the DOE used to calculate the weight of CO<sub>2</sub>, the weight of water created and breathable oxygen used from burning a gallon gasoline can also be calculated.

A hydrogen atom has an atomic weight of 1, and each oxygen atom has an atomic weight of 16, giving each single molecule of H<sub>2</sub>O an atomic weight of 18 (2 from hydrogen and 16 from oxygen).

Therefore, to calculate the amount of H<sub>2</sub>O produced from a gallon of gasoline, the weight of the hydrogen in the gasoline is multiplied by 18/2 or 9.

Since gasoline is about 87% carbon and 13% hydrogen by weight, the hydrogen in a gallon of gasoline weighs 0.82 pounds (6.3 lbs. x .13).

We can then multiply the weight of the hydrogen (0.82 pounds) by 9, which equals 7.3 pounds of H<sub>2</sub>O!

The amount of oxygen in an amount of CO<sub>2</sub> from the atomic weights is 44/32 or 1.375. Therefore the weight of oxygen in 20 pounds of CO<sub>2</sub> is 14.5 pounds (20/1.375).

The amount of oxygen in an amount of H<sub>2</sub>O from the atomic weights is 18/16 or 1.125. Therefore the weight of oxygen in 7.3 pounds of H<sub>2</sub>O is 6.5 pounds (7.3/1.125)

Adding these two results together is 21 pounds of oxygen. Every time one gallon of gasoline is burned, 20 pounds of CO<sub>2</sub> and 7.3 pounds of water is added to the atmosphere where it remains for 300 to 1,000 and 21 pounds of breathable oxygen is removed from the skies of Palm Beach County for the same length of time.

Using the same 523 gallons per year per car the weight of water produced is 3,818 pounds (7.3 pounds x 523). Converting to tons this is 1.9 tons of water per car per year from their tailpipes (in the form of steam).

## Appendix 4: What do greenhouses have to do with carbon dioxide?

Categorizing carbon dioxide, water and methane as “greenhouse gases” may make sense to scientists as a very accurate and useful analogy or metaphor. Unfortunately, the point is lost because a large percentage of the USA population have no idea why a glass greenhouse warms up.

The earliest known European Orangery was built around 1545 in Padua, Italy. As the name implies the purpose was an enclosure so orange trees and other warm weather plants could grow in colder climes. The first ones were made from brick or stone and warmed with a fire. Commercial plate glass casting was perfected in France in 1688. The Crystal Palace was built in 1851 at Hyde Park, London for the Great Exhibition . After that, glass greenhouses were built for the rich and famous and spread out from there.

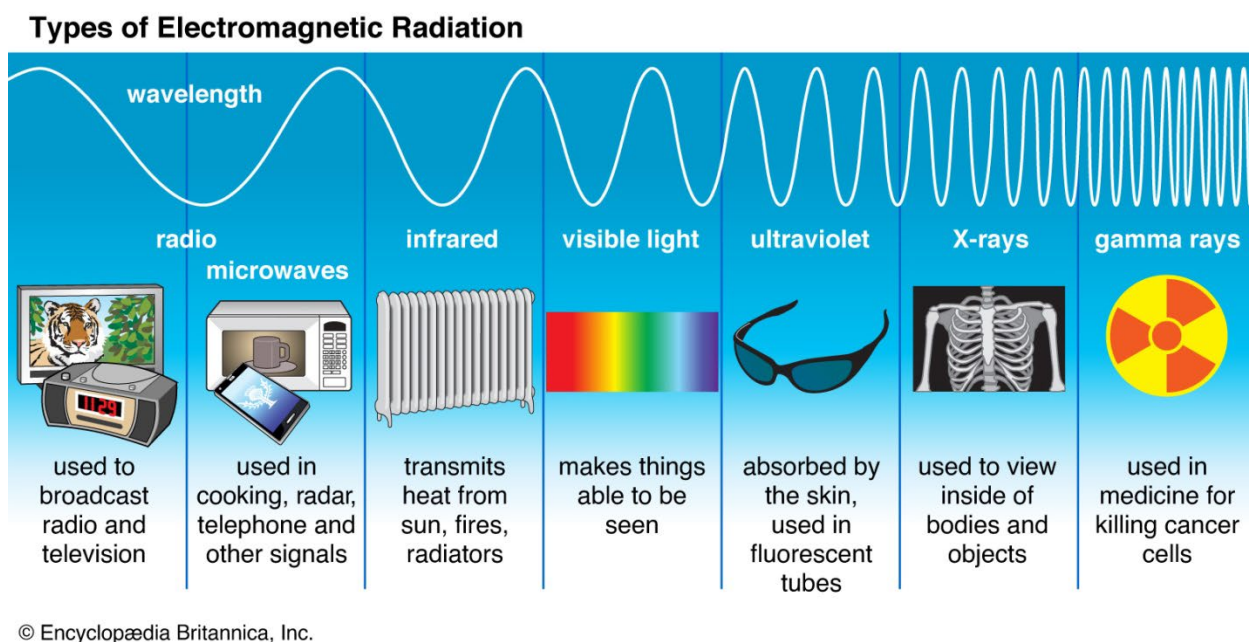


Figure 28 Source: <https://www.britannica.com/science/electromagnetic-spectrum>

Glass greenhouses work (being warmer than the surrounding air) because of properties of the electromagnetic radiation spectrum. Frequency is the number of wavelength periods per second. Wavelengths are the number of periods per meter. As can be seen in the graph gamma rays have the most wavelength periods per meter. This is 10,000,000,000 wavelength periods per meter. Radio and TV waves are at the lower end of the spectrum. For Very High Frequency (VHF) each wave length is between one and ten

meters long per period. Ultra High Frequency (UHF) have wave lengths between one and  $1/10^{\text{th}}$  meter per period.

Between the extremes of gamma and radio waves is sunlight: radiant energy from the sun. Sunlight has a range of wavelengths from infrared (the lower end is 1,000 wavelength cycles per meter) to ultra violet light (top end is 10,000,000 wavelength cycles per meter). Visible light, the wavelengths of radiation our eyes can see, is between the ranges of 1,428,000 wave length cycles per meter (top of infra red) to 2,630,000 wavelength cycles per meter (bottom of ultra-violet).

Glass is nearly invisible to us because visible light wavelengths are so tight they zip right through the nuclei of the glass molecules with no interaction. As do the ultra-violet rays. However, the wider wavelength infra red rays bump and interact with the glass molecules. The infrared rays either bounce back up towards Space or the energy from the ray of sunlight is absorbed by the glass molecule. The rays of sunlight which easily penetrate the glass of a greenhouse (visible and ultraviolet light) hit the surface of the objects in the greenhouse. The sunlight energy is absorbed into the objects. Energy can neither be created or destroyed. After an object has some time in sunlight, it can no longer store any more energy and energy must leave the object. One method is re-radiating the energy into the electromagnetic spectrum. However, this energy leaves the objects in the greenhouse in longer wavelengths. The former sunlight energy is now infrared light or heat rays. This wavelength does not zip through glass. This energy is bounced back from the glass into the greenhouse getting a second chance to warm the air and objects. The air and objects in a greenhouse heat up.

Water, carbon dioxide, and methane molecules share this characteristic of glass. Therefore scientist for ease of understanding, have classified them as greenhouse gases. Releasing billions of tons of greenhouse gases into the atmosphere has the same effect as seeding the sky with trillions and trillions of floating, teeny tiny shards of glass. Some pieces will be angled to reflect heat rays into Space, and some pieces will be angled to reflect heat rays back to Earth. Enough greenhouse gas molecules are reflecting heat rays back to Earth to cause Global Warming. Not as accurate, but perhaps for better understanding... water, carbon dioxide, and methane could have been labelled “down comforter” gases.

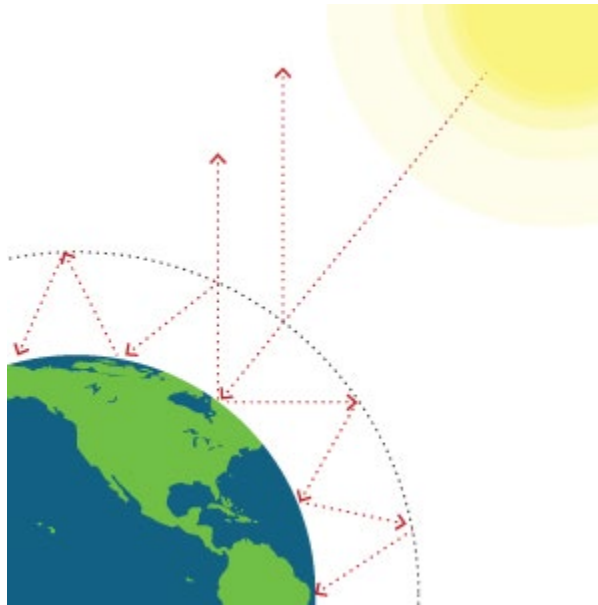


Figure 29 Source: <https://www.fondriest.com/environmental-measurements/parameters/weather/photosynthetically-active-radiation/>



Figure 30 Source: <https://droneservicestx.com/drone-services/aerial-thermal-imaging/>

Nearly every frontline fire engine in the USA has a thermal imagery device to make invisible infrared/heat rays visible to firefighters which aids in locating the seat of the fire. In Figure 30 notice the correctly serpentine charged hoseline is black because of the cool water (why nobody is on the nozzle of a charged hoseline is another question). The interior of the open front door and the broken out

windows to its right glow yellow from the fire within. Above the two firefighters on the left are two windows. The frames around the windows are radiating heat represented by the yellow color. But the windows themselves are nearly as dark as the solid walls. This visually shows the greenhouse effect as the window glass reflects back into the fire enough heat rays to be nearly as cool as a solid wall.

Bill Nye the Science Guys has some thoughts on carbon dioxide. To get to Youtube videos copy the link, click on the link. This will open a tab for Youtube. Paste the copied link into Youtube search.

<https://www.youtube.com/watch?v=16ywJDBM27o>

A good explanation of many Global Warming/Climate Change misconceptions. Use the same steps as the Bill Nye link. <https://www.youtube.com/watch?v=OWXoRSIxyIU>

## Appendix 5 Gasoline Primer

### Gasoline Source

By [The Editors of Encyclopaedia Britannica](#) |



Siberia, Russia: oil well

Key People: [Benjamin Silliman](#)

Related Topics: [fracking](#) [heavy oil and tar sand](#) [tar sand](#) [light oil](#) [rock oil](#)

**crude oil**, liquid [petroleum](#) that is found accumulated in various porous rock formations in [Earth's](#) crust and is extracted for burning as fuel or for processing into chemical products.

### Chemical and physical properties

Crude oil is a mixture of comparatively volatile liquid [hydrocarbons](#) (compounds composed mainly of [hydrogen](#) and [carbon](#)), though it also contains some [nitrogen](#), [sulfur](#), and [oxygen](#). Those elements form a large variety of complex molecular structures, some of which cannot be readily identified. Regardless of variations, however, almost all crude oil ranges from 82 to 87 percent carbon by weight and 12 to 15 percent hydrogen by weight.

Crude oils are customarily characterized by the type of hydrocarbon [compound](#) that is most prevalent in them: [paraffins](#), [naphthenes](#), and [aromatics](#). Paraffins are the most common hydrocarbons in crude oil; certain liquid paraffins are the major [constituents](#) of [gasoline](#) (petrol) and are therefore highly valued. Naphthenes are an important part of all liquid refinery products, but they also form some of the heavy [asphalt](#)like residues of refinery processes. Aromatics generally [constitute](#) only a small percentage of most crudes. The most common aromatic in crude oil is [benzene](#), a popular building block in the [petrochemical](#) industry.



Because crude oil is a mixture of such widely varying constituents and proportions, its physical properties also vary widely. In appearance, for instance, it ranges from colourless to black. Possibly the most important physical property is [specific gravity](#) (i.e., the ratio of the weight of equal volumes of a crude oil and pure [water](#) at standard conditions). In laboratory measurement of specific gravity, it is customary to assign pure water a measurement of 1; substances lighter than water, such as crude oil, would receive measurements less than 1. The [petroleum industry](#), however, uses the [American Petroleum Institute \(API\) gravity scale](#), in which pure water has been arbitrarily assigned an API gravity of 10°. Liquids lighter than water, such as oil, have API gravities numerically greater than 10. On the basis of their API gravity, crude oils can be classified as heavy, medium, and light as follows:



A natural oil seep. *Courtesy of Norman J. Hyne Ph.D.*

- Heavy: 10–20° API gravity
- Medium: 20–25° API gravity
- Light: above 25° API gravity

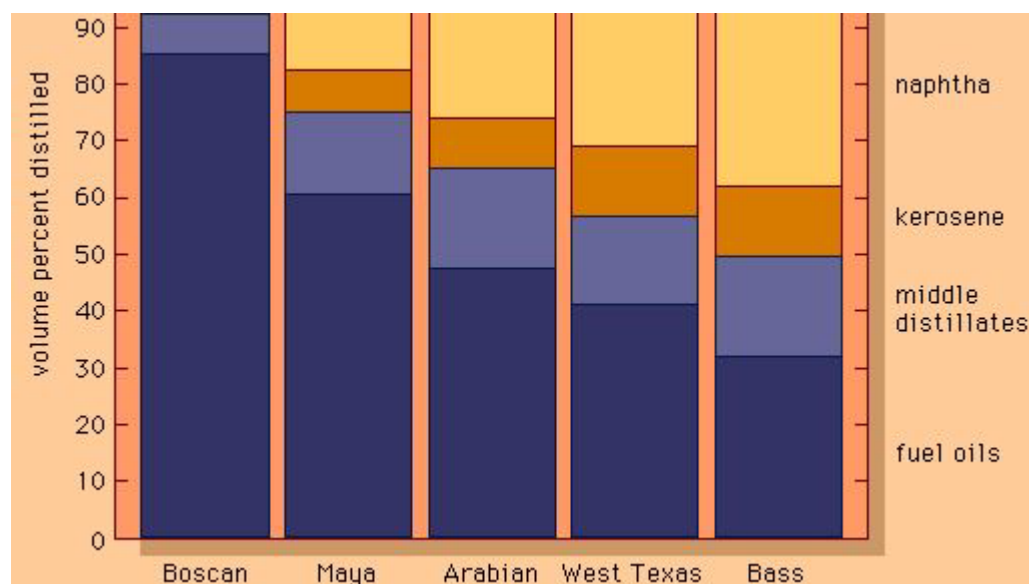
Crude oil also is categorized as “sweet” or “sour” depending on the level of [sulfur](#), which occurs either as elemental sulfur or in [compounds](#) such as [hydrogen sulfide](#). Sweet crudes have sulfur contents of 0.5 percent or less by weight, and sour crudes have sulfur contents of 1 percent or more by weight. Generally, the heavier the crude oil, the greater its sulfur content. Excess sulfur is removed from crude oil during refining, because sulfur oxides released into the atmosphere during combustion of oil are a major [pollutant](#).

## Extraction and processing

Crude oil occurs underground, at various pressures depending on depth. It can contain considerable [natural gas](#), kept in solution by the pressure. In addition, water often flows into an oil well along with liquid crude and gas. All these fluids are collected by surface equipment for

separation. Clean crude oil is sent to storage at near [atmospheric pressure](#), usually aboveground in cylindrical steel tanks that may be as large as 30 metres (100 feet) in diameter and 10 metres (33 feet) tall. Often crude oil must be transported from widely distributed production sites to treatment plants and refineries. Overland movement is largely through [pipelines](#). Crude from more isolated wells is collected in tank trucks and taken to pipeline terminals; there is also some transport in specially constructed railroad cars. Overseas transport is conducted in specially designed [tanker](#) ships. Tanker capacities vary from less than 100,000 barrels to more than 3,000,000 barrels.

The primary destination of crude oil is a [refinery](#). There any combination of three basic functions is carried out: (1) separating the many types of hydrocarbon present in crude oils into fractions of more closely related properties, (2) chemically converting the separated hydrocarbons into more desirable reaction products, and (3) purifying the products of unwanted elements and compounds. The main process for separating the hydrocarbon components of crude oil is fractional distillation. Crude oil fractions separated by [distillation](#) are passed on for subsequent processing into numerous products, ranging from [gasoline](#) and [diesel fuel](#) to heating oil to [asphalt](#). The proportions of products that may be obtained by distillation of five typical crude oils, ranging from heavy Venezuelan Boscan to the light [Bass Strait](#) oil produced in Australia, are shown in the figure. Given the pattern of modern demand (which tends to be highest for transportation fuels such as gasoline), the market value of a crude oil generally rises with increasing yields of light products.



[crude oils](#) Product content of five major crude oils. *Encyclopædia Britannica, Inc.*

In the United States, the conventional practice for the petroleum industry is to measure capacity by volume and to use the English system of measurement. For this reason, crude oil in the United States is measured in [barrels](#), each barrel containing 42 gallons of oil. Most other areas of the world define capacity by the weight of materials processed and record measurements in metric units; therefore, crude oil outside the United States is usually measured in metric [tons](#). A barrel of API 30° light oil would weigh about 139 kg (306 pounds). Conversely, a metric ton of API 30° light oil would be equal to approximately 252 imperial gallons, or about 7.2 U.S. barrels.

## Hydrocarbons

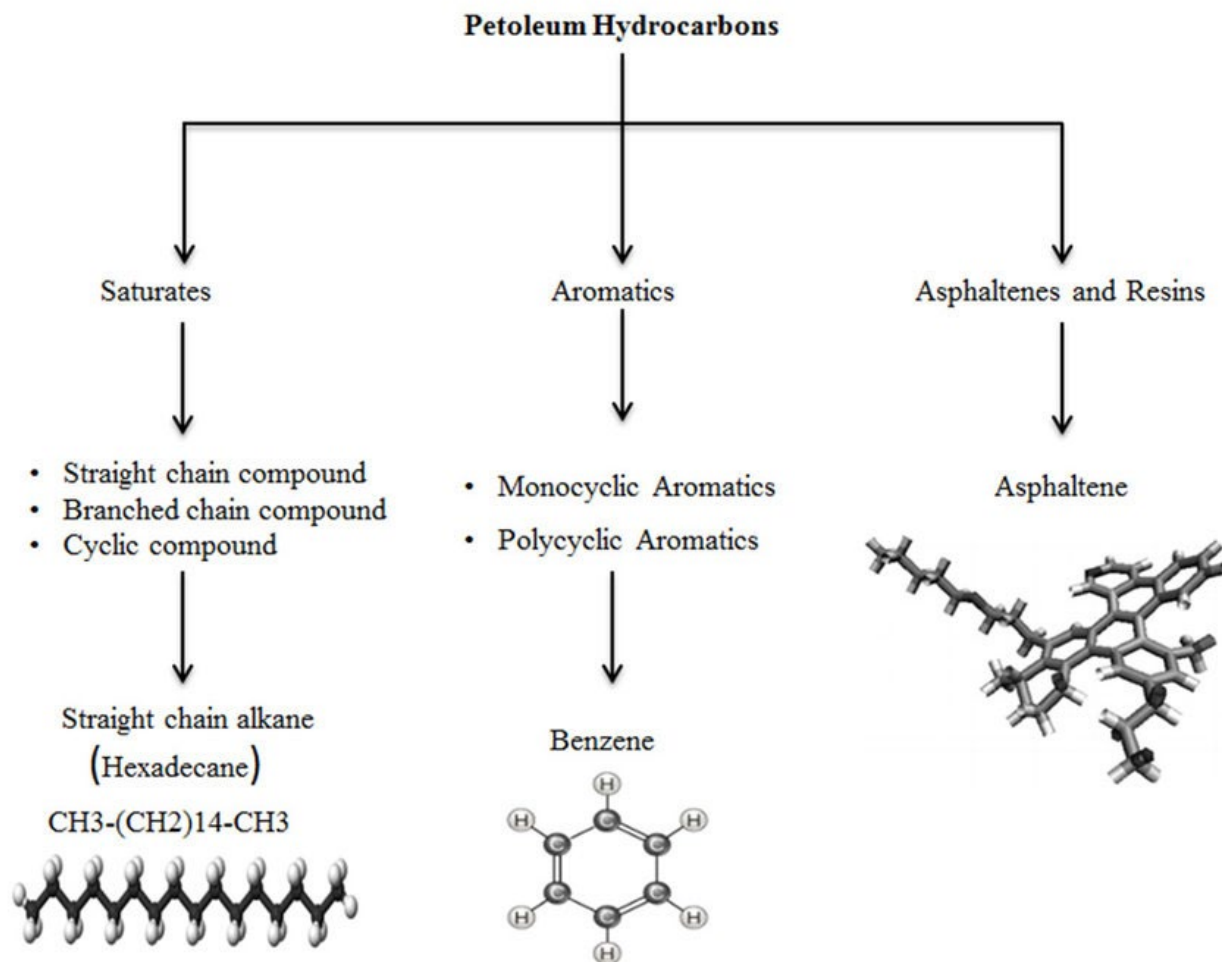


Figure 31 Diagram by Eman Koshlaf PhD, RMIT University, Australia | RMIT · Department of Applied Science

From the University of Calgary, Canada <https://energyeducation.ca/encyclopedia/Hydrocarbon> :

The term **hydrocarbon** refers to the most basic type of [organic molecules](#). As suggested by their name, they are comprised of only 2 elements: [hydrogen](#) and [carbon](#).<sup>[1]</sup> Hydrocarbon [molecules](#) have one or more central carbon [atoms](#) in a branched or chain-like structure, surrounded by hydrogen atoms. There are four main categories of hydrocarbons: [Alkanes](#), [Alkenes](#), [Alkynes](#), and [Aromatic hydrocarbons](#).<sup>[2]</sup>

### Structure

The simplest hydrocarbons are called [alkanes](#). Alkanes are made exclusively with **single bonds** between the carbon atoms. Figure 1 shows some small alkane molecules - notice that all the C-C bonds are single bonds. This means that all carbons in an alkane have a tetrahedral geometry. The examples in Figure 1 are all "straight chain" alkanes, where the central carbons form a single linear chain. Alkanes may also be branched [\[3\]](#) or cyclic [\[4\]](#), and can contain any number of carbon atoms.

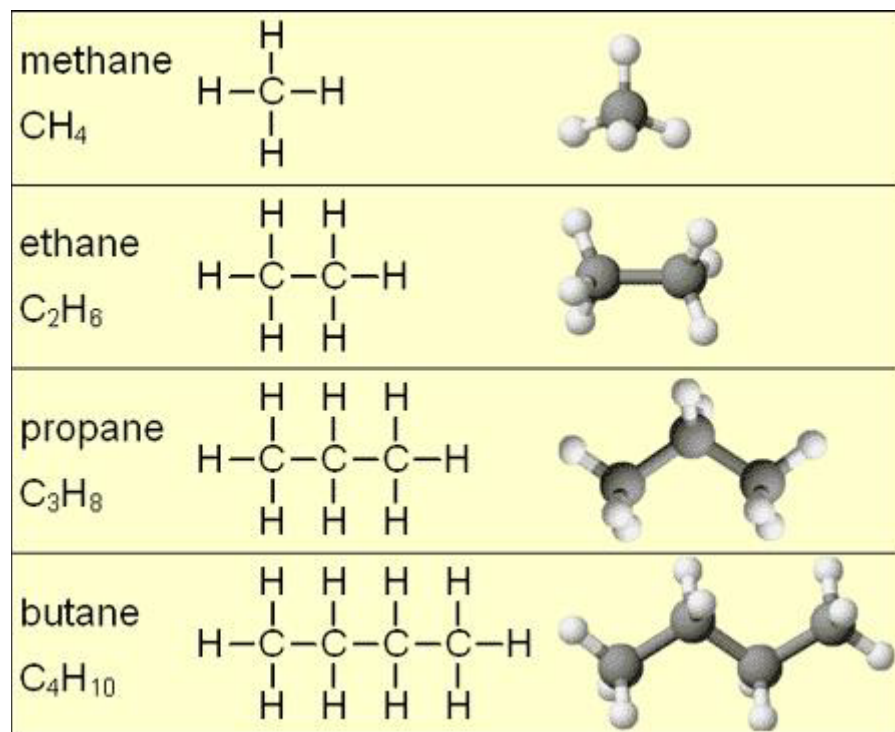


Figure 1 The smallest hydrocarbons. [\[5\]](#)

Similar in structure to alkanes, [alkenes](#) are hydrocarbons where the central carbon chain contains at least one double bond between carbon atoms, and [alkynes](#) contain at least one triple bond. Also commonly seen are [hydrocarbon derivatives](#), where atoms other than carbon or hydrogen are present. [\[1\]](#) For example in an **alkyl halide**, a hydrogen from an alkane is replaced by a [halogen](#) atom such as chlorine or bromine.

Hydrocarbons and their derivatives are the main constituents of [fossil fuels](#), and release [energy](#) through [combustion](#). Besides their [fuel](#) applications, hydrocarbons are also used in chemical synthesis and are major components of lubricating oils, greases, solvents, fuels, wax, asphalts, cosmetics, and plastics. [\[6\]](#) These non-fuel applications of hydrocarbons can be of great importance to society and the economy.

Name	Molecular Formula	Condensed Formula	Structural Formula
Methane	CH <sub>4</sub>	CH <sub>4</sub>	$\begin{array}{c} \text{H} \\   \\ \text{H}-\text{C}-\text{H} \\   \\ \text{H} \end{array}$
Ethane	C <sub>2</sub> H <sub>6</sub>	H <sub>3</sub> CCH <sub>3</sub>	$\begin{array}{c} \text{H} \quad \text{H} \\   \quad   \\ \text{H}-\text{C}-\text{C}-\text{H} \\   \quad   \\ \text{H} \quad \text{H} \end{array}$
Propane	C <sub>3</sub> H <sub>8</sub>	H <sub>3</sub> CCH <sub>2</sub> CH <sub>3</sub>	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \\   \quad   \quad   \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{H} \\   \quad   \quad   \\ \text{H} \quad \text{H} \quad \text{H} \end{array}$
Butane	C <sub>4</sub> H <sub>10</sub>	H <sub>3</sub> C(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \\   \quad   \quad   \quad   \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{C}-\text{H} \\   \quad   \quad   \quad   \\ \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \end{array}$
Pentane	C <sub>5</sub> H <sub>12</sub>	H <sub>3</sub> C(CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub>	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \\   \quad   \quad   \quad   \quad   \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{H} \\   \quad   \quad   \quad   \quad   \\ \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \end{array}$
Hexane	C <sub>6</sub> H <sub>14</sub>	H <sub>3</sub> C(CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub>	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \\   \quad   \quad   \quad   \quad   \quad   \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{H} \\   \quad   \quad   \quad   \quad   \quad   \\ \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \end{array}$
Heptane	C <sub>7</sub> H <sub>16</sub>	H <sub>3</sub> C(CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub>	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \\   \quad   \quad   \quad   \quad   \quad   \quad   \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{H} \\   \quad   \quad   \quad   \quad   \quad   \quad   \\ \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \end{array}$
Octane	C <sub>8</sub> H <sub>18</sub>	H <sub>3</sub> C(CH <sub>2</sub> ) <sub>6</sub> CH <sub>3</sub>	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \\   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{H} \\   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \\ \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \end{array}$
Nonane	C <sub>9</sub> H <sub>20</sub>	H <sub>3</sub> C(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \\   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{H} \\   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \\ \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \end{array}$
Decane	C <sub>10</sub> H <sub>22</sub>	H <sub>3</sub> C(CH <sub>2</sub> ) <sub>8</sub> CH <sub>3</sub>	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \\   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{C}-\text{H} \\   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \quad   \\ \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \end{array}$

Figure 32 List of the first 10 hydrocarbons, the compounds found in gasoline Illustration source: <https://sites.google.com/site/csetstudyguidechemistry/home/6-1c-organic-chemistry-biochemistry---ten-simplest-hydrocarbons>



### 3. CHEMICAL AND PHYSICAL INFORMATION

#### 3.1 CHEMICAL IDENTITY

Gasoline is a refined product of petroleum consisting of a mixture of hydrocarbons, additives, and blending agents. The composition of gasolines varies widely, depending on the crude oils used, the refinery processes available, the overall balance of product demand, and the product specifications. The typical composition of gasoline hydrocarbons (% volume) is as follows: 4-8% alkanes; 2-5% alkenes; 25-40% isoalkanes; 3-7% cycloalkanes; 1-4% cycloalkenes; and 20-50% total aromatics (0.5-2.5% benzene) (IARC 1989). Additives and blending agents are added to the hydrocarbon mixture to improve the performance and stability of gasoline (IARC 1989; Lane 1980). These compounds include anti-knock agents, anti-oxidants, metal deactivators, lead scavengers, anti-rust agents, anti-icing agents, upper-cylinder lubricants, detergents, and dyes (IARC 1989; Lane 1980). At the end of the production process, finished gasoline typically contains more than 150 separate compounds although as many as 1,000 compounds have been identified in some blends (Domask 1984; Mehlman 1990). Information regarding the chemical identity of gasoline is located in Table 3-1.

#### 3.2 PHYSICAL AND CHEMICAL PROPERTIES

Information regarding the physical and chemical properties for the gasoline mixture is located in Table 3-2. In cases where data are not available for gasoline, ranges are given to indicate the different values for the individual components.

## CHEMICAL AND PHYSICAL INFORMATION

**TABLE 3-1. Chemical Identity of Gasoline**

Characteristic	Information	Reference
Chemical name	Gasoline	RTECS 1990
Synonyms	Casing head gasoline; motor fuel; motor spirit; natural gasoline; petrol	HSDB 1993
Registered trade name(s)	No data <sup>a</sup>	
Chemical formula	No data <sup>a</sup>	
Chemical structure	No data <sup>a</sup>	
Identification numbers:		
CAS registry	8006-61-9	RTECS 1990; Sax and Lewis 1989
NIOSH RTECS	LX3300000	RTECS 1990; SANSS 1986; Sax and Lewis 1989
EPA hazardous waste OHM/TADS	No data 7217073	OHM/TADS 1991; SANSS 1986
DOT/UN/NA/IMCO shipping	UN1203, UN1257	RTECS 1990
HSDB	No data	
NCI	No data	

<sup>a</sup>Gasoline is a mixed compound consisting of hydrocarbons, blending agents, and additives.

CAS = Chemical Abstracts Services; DOT/UN/NA/IMCO = Department of Transportation/United Nations/North America/International Maritime Dangerous Goods Code; EPA = Environmental Protection Agency; HSDB = Hazardous Substances Data Bank; NCI = National Cancer Institute; NIOSH = National Institute for Occupational Safety and Health; OHM/TADS = Oil and Hazardous Materials/Technical Assistance Data System; RTECS = Registry of Toxic Effects of Chemical Substances; SANSS = Structure and Nomenclature Search System

**TABLE 3-2. Physical and Chemical Properties of Gasoline**

Property	Information	Reference
Molecular weight	108 <sup>a</sup>	Anonymous 1989
Color	Colorless to pale brown or pink	Sax and Lewis 1989; Weiss 1986
Physical state	Liquid	Sax and Lewis 1989
Melting point	No data	
Boiling point	Initially, 39°C After 10% distilled, 60°C After 50% distilled, 110°C After 90% distilled, 170°C Final boiling point, 204°C	Budavari et al. 1989; OHM/TADS 1991; Sax and Lewis 1989
Density	0.7-0.8 g/cm <sup>3,b</sup>	IARC 1989
Odor	Gasoline odor	Weiss 1986
Odor threshold	0.025 ppm <sup>c</sup>	Weiss 1986
Solubility:		
Water at 20°C	Insoluble	OHM/TADS 1991; Sax and Lewis 1989
Organic solvent(s)	Absolute alcohol, ether, chloroform, benzene	Budavari et al. 1989; Sax and Lewis 1989
Partition coefficients:		
Log K <sub>ow</sub>	2.13-4.87 <sup>d</sup>	Air Force 1989
Log K <sub>oc</sub>	1.81-4.56 <sup>d</sup>	Air Force 1989
Vapor pressure <sup>e</sup>		ASTM 1989
at 60°C	465 mmHg	
at 56°C	518 mmHg	
at 51°C	593 mmHg	
at 47°C	698 mmHg	
at 41°C	773 mmHg	
Henry's law constant:		
at 20°C	4.8x10 <sup>-4</sup> -3.3 m <sup>3</sup> /mol <sup>d</sup>	Air Force 1989
Autoignition temperature	280-486°C	NEPA 1986; Sax and Lewis 1989; Weiss 1986
Flashpoint	-46°C	Sax and Lewis 1989
Flammability limits	1.4-7.4%	Weiss 1986



**TABLE 3-2. Physical and Chemical Properties of Gasoline (*continued*)**

Property	Information	Reference
Conversion factors	No data	
Explosive limits	1.3-6.0%	Budavari et al. 1989; Sax and Lewis 1989

<sup>a</sup>Average molecular weight

<sup>b</sup>Temperature not specified

<sup>c</sup>Not specified whether data for air or water

<sup>d</sup>Since data are not available for gasoline, ranges are given indicating different values for the individual components.

<sup>e</sup>The American Society for Testing and Materials (ASTM) has established guidelines on compositions of gasoline that will permit satisfactory performance under varying conditions. These guidelines define five volatility classes that vary by seasonal climatic changes. The values given for vapor pressure at the given temperatures are based on these volatility classes.

## CHEMICAL AND PHYSICAL INFORMATION

TABLE 3-3. Major Components of Gasoline<sup>a</sup>

Component	Percentage Composition <sup>b</sup>	Component
<i>n</i> -alkanes		<u>Other possible components</u>
C <sub>5</sub>	3.0	octane enhancers
C <sub>6</sub>	11.6	methyl t-butyl ether (MTBE)
C <sub>7</sub>	1.2	t-butyl alcohol (TBA)
C <sub>9</sub>	0.7	ethanol
C <sub>10</sub> -C <sub>13</sub>	0.8	methanol
total of <i>n</i> -alkanes	17.3	antioxidants
branched alkanes		<i>N,N'</i> -dialkylphenylenediamines
C <sub>4</sub>	2.2	2,6-dialkyl and 2,4,6-trialkylphenols
C <sub>5</sub>	15.1	butylated methyl, ethyl and dimethyl phenols
C <sub>6</sub>	8.0	triethylene tetramine di(monononylphenolate)
C <sub>7</sub>	1.9	metal deactivators
C <sub>8</sub>	1.8	<i>N,N'</i> -disalicylidene-1,2-ethanediamine
C <sub>9</sub>	2.1	<i>N,N'</i> -disalicylidene-propanediamine
C <sub>10</sub> -C <sub>13</sub>	1.0	<i>N,N'</i> -disalicylidene-cyclohexanediamine
total of branched	32.0	disalicylidene-N-methyl-dipropylene-triamine
cycloalkanes		ignition controllers
C <sub>6</sub>	3.0	tri-o-cresylphosphate (TOCP)
C <sub>7</sub>	1.4	icing inhibitors
C <sub>8</sub>	0.6	isopropyl alcohol
total of cycloalkanes	5.0	detergents/dispersants
olefins		alkylamine phosphates
C <sub>6</sub>	1.8	poly-isobutene amines
total of olefins	1.8	long chain alkyl phenols
aromatics		long chain alcohols
benzene	3.2	long chain carboxylic acids
toluene	4.8	long chain amines
xlenes	6.6	corrosion inhibitors
ethylbenzene	1.4	carboxylic acids
C <sub>3</sub> -benzenes	4.2	phosphoric acids
C <sub>4</sub> -benzenes	7.6	sulfonic acids
others	2.7	
total aromatics	30.5	

<sup>a</sup>Adapted from Air Force 1989<sup>b</sup>Percent by weight

## Appendix 6: State of Florida MPO laws

339.175 Metropolitan planning organization.—

(1) **PURPOSE.**—It is the intent of the Legislature to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and through urbanized areas of this state while minimizing transportation-related fuel consumption, air pollution, and greenhouse gas emissions through metropolitan transportation planning processes identified in this section. To accomplish these objectives, metropolitan planning organizations, referred to in this section as M.P.O.'s, shall develop, in cooperation with the state and public transit operators, transportation plans and programs for metropolitan areas. The plans and programs for each metropolitan area must provide for the development and integrated management and operation of transportation systems and facilities, including pedestrian walkways and bicycle transportation facilities that will function as an intermodal transportation system for the metropolitan area, based upon the prevailing principles provided in s. [334.046](#)(1). The process for developing such plans and programs shall provide for consideration of all modes of transportation and shall be continuing, cooperative, and comprehensive, to the degree appropriate, based on the complexity of the transportation problems to be addressed. To ensure that the process is integrated with the statewide planning process, M.P.O.'s shall develop plans and programs that identify transportation facilities that should function as an integrated metropolitan transportation system, giving emphasis to facilities that serve important national, state, and regional transportation functions. For the purposes of this section, those facilities include the facilities on the Strategic Intermodal System designated under s. [339.63](#) and facilities for which projects have been identified pursuant to s. [339.2819](#)(4).

(2) **DESIGNATION.**—

(a)1. An M.P.O. shall be designated for each urbanized area of the state; however, this does not require that an individual M.P.O. be designated for each such area. Such designation shall be accomplished by agreement between the Governor and units of general-purpose local government representing at least 75 percent of the population of the urbanized area; however, the unit of general-purpose local government that represents the central city or cities within the M.P.O. jurisdiction, as defined by the United States Bureau of the Census, must be a party to such agreement.

2. To the extent possible, only one M.P.O. shall be designated for each urbanized area or group of contiguous urbanized areas. More than one M.P.O. may be designated within an existing urbanized area only if the Governor and the existing M.P.O. determine that the size and complexity of the existing urbanized area makes the designation of more than one M.P.O. for the area appropriate.

(b) Each M.P.O. designated in a manner prescribed by Title 23 of the United States Code shall be created and operated under the provisions of this section pursuant to an interlocal agreement entered into pursuant to s. [163.01](#). The signatories to the interlocal agreement shall be the department and the governmental entities designated by the Governor for membership on the M.P.O. Each M.P.O. shall be considered separate from the state or the governing body of a local government that is represented on the governing board of the M.P.O. or that is a signatory to the interlocal agreement creating the M.P.O. and shall have such powers and privileges that are

provided under s. [163.01](#). If there is a conflict between this section and s. [163.01](#), this section prevails.

(c) The jurisdictional boundaries of an M.P.O. shall be determined by agreement between the Governor and the applicable M.P.O. The boundaries must include at least the metropolitan planning area, which is the existing urbanized area and the contiguous area expected to become urbanized within a 20-year forecast period, and may encompass the entire metropolitan statistical area or the consolidated metropolitan statistical area.

(d) In the case of an urbanized area designated as a nonattainment area for ozone or carbon monoxide under the Clean Air Act, 42 U.S.C. ss. 7401 et seq., the boundaries of the metropolitan planning area in existence as of the date of enactment of this paragraph shall be retained, except that the boundaries may be adjusted by agreement of the Governor and affected metropolitan planning organizations in the manner described in this section. If more than one M.P.O. has authority within a metropolitan area or an area that is designated as a nonattainment area, each M.P.O. shall consult with other M.P.O.'s designated for such area and with the state in the coordination of plans and programs required by this section.

(e) The governing body of the M.P.O. shall designate, at a minimum, a chair, vice chair, and agency clerk. The chair and vice chair shall be selected from among the member delegates comprising the governing board. The agency clerk shall be charged with the responsibility of preparing meeting minutes and maintaining agency records. The clerk shall be a member of the M.P.O. governing board, an employee of the M.P.O., or other natural person.

Each M.P.O. required under this section must be fully operative no later than 6 months following its designation.

### (3) VOTING MEMBERSHIP.—

(a) The voting membership of an M.P.O. shall consist of not fewer than 5 or more than 19 apportioned members, the exact number to be determined on an equitable geographic-population ratio basis by the Governor, based on an agreement among the affected units of general-purpose local government as required by federal rules and regulations. The Governor, in accordance with 23 U.S.C. s. 134, may also provide for M.P.O. members who represent municipalities to alternate with representatives from other municipalities within the metropolitan planning area that do not have members on the M.P.O. County commission members shall compose not less than one-third of the M.P.O. membership, except for an M.P.O. with more than 15 members located in a county with a 5-member county commission or an M.P.O. with 19 members located in a county with no more than 6 county commissioners, in which case county commission members may compose less than one-third percent of the M.P.O. membership, but all county commissioners must be members. All voting members shall be elected officials of general-purpose local governments, except that an M.P.O. may include, as part of its apportioned voting members, a member of a statutorily authorized planning board, an official of an agency that operates or administers a major mode of transportation, or an official of Space Florida. As used in this section, the term “elected officials of a general-purpose local government” shall exclude constitutional officers, including sheriffs, tax collectors, supervisors of elections, property appraisers, clerks of the court, and similar types of officials. County commissioners shall compose not less than 20 percent of the M.P.O. membership if an official of an agency that operates or administers a major mode of transportation has been appointed to an M.P.O.

(b) In metropolitan areas in which authorities or other agencies have been or may be created by law to perform transportation functions and are performing transportation functions that are not under the jurisdiction of a general-purpose local government represented on the M.P.O., they shall be provided voting membership on the M.P.O. In all other M.P.O.'s where transportation authorities or agencies are to be represented by elected officials from general-purpose local governments, the M.P.O. shall establish a process by which the collective interests of such authorities or other agencies are expressed and conveyed.

(c) Any other provision of this section to the contrary notwithstanding, a chartered county with over 1 million population may elect to reapportion the membership of an M.P.O. whose jurisdiction is wholly within the county. The charter county may exercise the provisions of this paragraph if:

1. The M.P.O. approves the reapportionment plan by a three-fourths vote of its membership;
2. The M.P.O. and the charter county determine that the reapportionment plan is needed to fulfill specific goals and policies applicable to that metropolitan planning area; and
3. The charter county determines the reapportionment plan otherwise complies with all federal requirements pertaining to M.P.O. membership.

Any charter county that elects to exercise the provisions of this paragraph shall notify the Governor in writing.

(d) Any other provision of this section to the contrary notwithstanding, any county chartered under s. 6(e), Art. VIII of the State Constitution may elect to have its county commission serve as the M.P.O., if the M.P.O. jurisdiction is wholly contained within the county. Any charter county that elects to exercise the provisions of this paragraph shall so notify the Governor in writing. Upon receipt of such notification, the Governor must designate the county commission as the M.P.O. The Governor must appoint four additional voting members to the M.P.O., one of whom must be an elected official representing a municipality within the county, one of whom must be an expressway authority member, one of whom must be a person who does not hold elected public office and who resides in the unincorporated portion of the county, and one of whom must be a school board member.

(4) APPORTIONMENT.—

(a) The Governor shall, with the agreement of the affected units of general-purpose local government as required by federal rules and regulations, apportion the membership on the applicable M.P.O. among the various governmental entities within the area. At the request of a majority of the affected units of general-purpose local government comprising an M.P.O., the Governor and a majority of units of general-purpose local government serving on an M.P.O. shall cooperatively agree upon and prescribe who may serve as an alternate member and a method for appointing alternate members who may vote at any M.P.O. meeting that an alternate member attends in place of a regular member. The method shall be set forth as a part of the interlocal agreement describing the M.P.O.'s membership or in the M.P.O.'s operating procedures and bylaws. The governmental entity so designated shall appoint the appropriate number of members to the M.P.O. from eligible officials. Representatives of the department shall serve as nonvoting advisers to the M.P.O. governing board. Additional nonvoting advisers may be appointed by the M.P.O. as deemed necessary; however, to the maximum extent feasible, each M.P.O. shall seek to appoint nonvoting representatives of various multimodal forms of transportation not otherwise represented by voting members of the M.P.O. An M.P.O. shall

appoint nonvoting advisers representing major military installations located within the jurisdictional boundaries of the M.P.O. upon the request of the aforesaid major military installations and subject to the agreement of the M.P.O. All nonvoting advisers may attend and participate fully in governing board meetings but may not vote or be members of the governing board. The Governor shall review the composition of the M.P.O. membership in conjunction with the decennial census as prepared by the United States Department of Commerce, Bureau of the Census, and reapportion it as necessary to comply with subsection (3).

(b) Except for members who represent municipalities on the basis of alternating with representatives from other municipalities that do not have members on the M.P.O. as provided in paragraph (3)(a), the members of an M.P.O. shall serve 4-year terms. Members who represent municipalities on the basis of alternating with representatives from other municipalities that do not have members on the M.P.O. as provided in paragraph (3)(a) may serve terms of up to 4 years as further provided in the interlocal agreement described in paragraph (2)(b). The membership of a member who is a public official automatically terminates upon the member's leaving his or her elective or appointive office for any reason, or may be terminated by a majority vote of the total membership of the entity's governing board represented by the member. A vacancy shall be filled by the original appointing entity. A member may be reappointed for one or more additional 4-year terms.

(c) If a governmental entity fails to fill an assigned appointment to an M.P.O. within 60 days after notification by the Governor of its duty to appoint, that appointment shall be made by the Governor from the eligible representatives of that governmental entity.

(5) **AUTHORITY AND RESPONSIBILITY.**—The authority and responsibility of an M.P.O. is to manage a continuing, cooperative, and comprehensive transportation planning process that, based upon the prevailing principles provided in s. [334.046](#)(1), results in the development of plans and programs which are consistent, to the maximum extent feasible, with the approved local government comprehensive plans of the units of local government the boundaries of which are within the metropolitan area of the M.P.O. An M.P.O. shall be the forum for cooperative decisionmaking by officials of the affected governmental entities in the development of the plans and programs required by subsections (6), (7), (8), and (9).

(6) **POWERS, DUTIES, AND RESPONSIBILITIES.**—The powers, privileges, and authority of an M.P.O. are those specified in this section or incorporated in an interlocal agreement authorized under s. [163.01](#). Each M.P.O. shall perform all acts required by federal or state laws or rules, now and subsequently applicable, which are necessary to qualify for federal aid. It is the intent of this section that each M.P.O. shall be involved in the planning and programming of transportation facilities, including, but not limited to, airports, intercity and high-speed rail lines, seaports, and intermodal facilities, to the extent permitted by state or federal law.

(a) Each M.P.O. shall, in cooperation with the department, develop:

1. A long-range transportation plan pursuant to the requirements of subsection (7);
2. An annually updated transportation improvement program pursuant to the requirements of subsection (8); and
3. An annual unified planning work program pursuant to the requirements of subsection (9).

(b) In developing the long-range transportation plan and the transportation improvement program required under paragraph (a), each M.P.O. shall provide for consideration of projects and strategies that will:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;

2. Increase the safety and security of the transportation system for motorized and nonmotorized users;
3. Increase the accessibility and mobility options available to people and for freight;
4. Protect and enhance the environment, promote energy conservation, and improve quality of life;
5. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
6. Promote efficient system management and operation; and
7. Emphasize the preservation of the existing transportation system.

(c) In order to provide recommendations to the department and local governmental entities regarding transportation plans and programs, each M.P.O. shall:

1. Prepare a congestion management system for the metropolitan area and cooperate with the department in the development of all other transportation management systems required by state or federal law;
2. Assist the department in mapping transportation planning boundaries required by state or federal law;
3. Assist the department in performing its duties relating to access management, functional classification of roads, and data collection;
4. Execute all agreements or certifications necessary to comply with applicable state or federal law;
5. Represent all the jurisdictional areas within the metropolitan area in the formulation of transportation plans and programs required by this section; and
6. Perform all other duties required by state or federal law.

(d) Each M.P.O. shall appoint a technical advisory committee, the members of which shall serve at the pleasure of the M.P.O. The membership of the technical advisory committee must include, whenever possible, planners; engineers; representatives of local aviation authorities, port authorities, and public transit authorities or representatives of aviation departments, seaport departments, and public transit departments of municipal or county governments, as applicable; the school superintendent of each county within the jurisdiction of the M.P.O. or the superintendent's designee; and other appropriate representatives of affected local governments. In addition to any other duties assigned to it by the M.P.O. or by state or federal law, the technical advisory committee is responsible for considering safe access to schools in its review of transportation project priorities, long-range transportation plans, and transportation improvement programs, and shall advise the M.P.O. on such matters. In addition, the technical advisory committee shall coordinate its actions with local school boards and other local programs and organizations within the metropolitan area which participate in school safety activities, such as locally established community traffic safety teams. Local school boards must provide the appropriate M.P.O. with information concerning future school sites and in the coordination of transportation service.

(e)1. Each M.P.O. shall appoint a citizens' advisory committee, the members of which serve at the pleasure of the M.P.O. The membership on the citizens' advisory committee must reflect a broad cross-section of local residents with an interest in the development of an efficient, safe, and cost-effective transportation system. Minorities, the elderly, and the handicapped must be adequately represented.

2. Notwithstanding the provisions of subparagraph 1., an M.P.O. may, with the approval of the department and the applicable federal governmental agency, adopt an alternative program or mechanism to ensure citizen involvement in the transportation planning process.

(f) The department shall allocate to each M.P.O., for the purpose of accomplishing its transportation planning and programming duties, an appropriate amount of federal transportation planning funds.

(g) Each M.P.O. shall have an executive or staff director who reports directly to the M.P.O. governing board for all matters regarding the administration and operation of the M.P.O. and any additional personnel as deemed necessary. The executive director and any additional personnel may be employed either by an M.P.O. or by another governmental entity, such as a county, city, or regional planning council, that has a staff services agreement signed and in effect with the M.P.O. Each M.P.O. may enter into contracts with local or state agencies, private planning firms, private engineering firms, or other public or private entities to accomplish its transportation planning and programming duties and administrative functions.

(h) In order to enhance their knowledge, effectiveness, and participation in the urbanized area transportation planning process, each M.P.O. shall provide training opportunities and training funds specifically for local elected officials and others who serve on an M.P.O. The training opportunities may be conducted by an individual M.P.O. or through statewide and federal training programs and initiatives that are specifically designed to meet the needs of M.P.O. board members.

(i) A chair's coordinating committee is created, composed of the M.P.O.'s serving Hernando, Hillsborough, Manatee, Pasco, Pinellas, Polk, and Sarasota Counties. The committee must, at a minimum:

1. Coordinate transportation projects deemed to be regionally significant by the committee.
2. Review the impact of regionally significant land use decisions on the region.
3. Review all proposed regionally significant transportation projects in the respective transportation improvement programs which affect more than one of the M.P.O.'s represented on the committee.
4. Institute a conflict resolution process to address any conflict that may arise in the planning and programming of such regionally significant projects.

(j)1. The Legislature finds that the state's rapid growth in recent decades has caused many urbanized areas subject to M.P.O. jurisdiction to become contiguous to each other. As a result, various transportation projects may cross from the jurisdiction of one M.P.O. into the jurisdiction of another M.P.O. To more fully accomplish the purposes for which M.P.O.'s have been mandated, M.P.O.'s shall develop coordination mechanisms with one another to expand and improve transportation within the state. The appropriate method of coordination between M.P.O.'s shall vary depending upon the project involved and given local and regional needs. Consequently, it is appropriate to set forth a flexible methodology that can be used by M.P.O.'s to coordinate with other M.P.O.'s and appropriate political subdivisions as circumstances demand.

2. Any M.P.O. may join with any other M.P.O. or any individual political subdivision to coordinate activities or to achieve any federal or state transportation planning or development goals or purposes consistent with federal or state law. When an M.P.O. determines that it is appropriate to join with another M.P.O. or any political subdivision to coordinate activities, the M.P.O. or political subdivision shall enter into an interlocal agreement pursuant to s. [163.01](#), which, at a minimum, creates a separate legal or administrative entity to coordinate the



transportation planning or development activities required to achieve the goal or purpose; provides the purpose for which the entity is created; provides the duration of the agreement and the entity and specifies how the agreement may be terminated, modified, or rescinded; describes the precise organization of the entity, including who has voting rights on the governing board, whether alternative voting members are provided for, how voting members are appointed, and what the relative voting strength is for each constituent M.P.O. or political subdivision; provides the manner in which the parties to the agreement will provide for the financial support of the entity and payment of costs and expenses of the entity; provides the manner in which funds may be paid to and disbursed from the entity; and provides how members of the entity will resolve disagreements regarding interpretation of the interlocal agreement or disputes relating to the operation of the entity. Such interlocal agreement shall become effective upon its recordation in the official public records of each county in which a member of the entity created by the interlocal agreement has a voting member. This paragraph does not require any M.P.O.'s to merge, combine, or otherwise join together as a single M.P.O.

(7) **LONG-RANGE TRANSPORTATION PLAN.**—Each M.P.O. must develop a long-range transportation plan that addresses at least a 20-year planning horizon. The plan must include both long-range and short-range strategies and must comply with all other state and federal requirements. The prevailing principles to be considered in the long-range transportation plan are: preserving the existing transportation infrastructure; enhancing Florida's economic competitiveness; and improving travel choices to ensure mobility. The long-range transportation plan must be consistent, to the maximum extent feasible, with future land use elements and the goals, objectives, and policies of the approved local government comprehensive plans of the units of local government located within the jurisdiction of the M.P.O. Each M.P.O. is encouraged to consider strategies that integrate transportation and land use planning to provide for sustainable development and reduce greenhouse gas emissions. The approved long-range transportation plan must be considered by local governments in the development of the transportation elements in local government comprehensive plans and any amendments thereto. The long-range transportation plan must, at a minimum:

(a) Identify transportation facilities, including, but not limited to, major roadways, airports, seaports, spaceports, commuter rail systems, transit systems, and intermodal or multimodal terminals that will function as an integrated metropolitan transportation system. The long-range transportation plan must give emphasis to those transportation facilities that serve national, statewide, or regional functions, and must consider the goals and objectives identified in the Florida Transportation Plan as provided in s. [339.155](#). If a project is located within the boundaries of more than one M.P.O., the M.P.O.'s must coordinate plans regarding the project in the long-range transportation plan.

(b) Include a financial plan that demonstrates how the plan can be implemented, indicating resources from public and private sources which are reasonably expected to be available to carry out the plan, and recommends any additional financing strategies for needed projects and programs. The financial plan may include, for illustrative purposes, additional projects that would be included in the adopted long-range transportation plan if reasonable additional resources beyond those identified in the financial plan were available. For the purpose of developing the long-range transportation plan, the M.P.O. and the department shall cooperatively develop estimates of funds that will be available to support the plan implementation. Innovative financing techniques may be used to fund needed projects and programs. Such techniques may include the assessment of tolls, the use of value capture financing, or the use of value pricing.

- (c) Assess capital investment and other measures necessary to:
  - 1. Ensure the preservation of the existing metropolitan transportation system including requirements for the operation, resurfacing, restoration, and rehabilitation of major roadways and requirements for the operation, maintenance, modernization, and rehabilitation of public transportation facilities; and
  - 2. Make the most efficient use of existing transportation facilities to relieve vehicular congestion and maximize the mobility of people and goods.
- (d) Indicate, as appropriate, proposed transportation enhancement activities, including, but not limited to, pedestrian and bicycle facilities, scenic easements, landscaping, historic preservation, mitigation of water pollution due to highway runoff, and control of outdoor advertising.
- (e) In addition to the requirements of paragraphs (a)-(d), in metropolitan areas that are classified as nonattainment areas for ozone or carbon monoxide, the M.P.O. must coordinate the development of the long-range transportation plan with the State Implementation Plan developed pursuant to the requirements of the federal Clean Air Act.

In the development of its long-range transportation plan, each M.P.O. must provide the public, affected public agencies, representatives of transportation agency employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transit, and other interested parties with a reasonable opportunity to comment on the long-range transportation plan. The long-range transportation plan must be approved by the M.P.O.

(8) **TRANSPORTATION IMPROVEMENT PROGRAM.**—Each M.P.O. shall, in cooperation with the state and affected public transportation operators, develop a transportation improvement program for the area within the jurisdiction of the M.P.O. In the development of the transportation improvement program, each M.P.O. must provide the public, affected public agencies, representatives of transportation agency employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transit, and other interested parties with a reasonable opportunity to comment on the proposed transportation improvement program.

- (a) Each M.P.O. is responsible for developing, annually, a list of project priorities and a transportation improvement program. The prevailing principles to be considered by each M.P.O. when developing a list of project priorities and a transportation improvement program are: preserving the existing transportation infrastructure; enhancing Florida's economic competitiveness; and improving travel choices to ensure mobility. The transportation improvement program will be used to initiate federally aided transportation facilities and improvements as well as other transportation facilities and improvements including transit, rail, aviation, spaceport, and port facilities to be funded from the State Transportation Trust Fund within its metropolitan area in accordance with existing and subsequent federal and state laws and rules and regulations related thereto. The transportation improvement program shall be consistent, to the maximum extent feasible, with the approved local government comprehensive plans of the units of local government whose boundaries are within the metropolitan area of the M.P.O. and include those projects programmed pursuant to s. [339.2819\(4\)](#).
- (b) Each M.P.O. annually shall prepare a list of project priorities and shall submit the list to the appropriate district of the department by October 1 of each year; however, the department and a metropolitan planning organization may, in writing, agree to vary this submittal date. Where

more than one M.P.O. exists in an urbanized area, the M.P.O.'s shall coordinate in the development of regionally significant project priorities. The list of project priorities must be formally reviewed by the technical and citizens' advisory committees, and approved by the M.P.O., before it is transmitted to the district. The approved list of project priorities must be used by the district in developing the district work program and must be used by the M.P.O. in developing its transportation improvement program. The annual list of project priorities must be based upon project selection criteria that, at a minimum, consider the following:

1. The approved M.P.O. long-range transportation plan;
2. The Strategic Intermodal System Plan developed under s. [339.64](#).
3. The priorities developed pursuant to s. [339.2819](#)(4).
4. The results of the transportation management systems; and
5. The M.P.O.'s public-involvement procedures.

(c) The transportation improvement program must, at a minimum:

1. Include projects and project phases to be funded with state or federal funds within the time period of the transportation improvement program and which are recommended for advancement during the next fiscal year and 4 subsequent fiscal years. Such projects and project phases must be consistent, to the maximum extent feasible, with the approved local government comprehensive plans of the units of local government located within the jurisdiction of the M.P.O. For informational purposes, the transportation improvement program shall also include a list of projects to be funded from local or private revenues.
2. Include projects within the metropolitan area which are proposed for funding under 23 U.S.C. s. 134 of the Federal Transit Act and which are consistent with the long-range transportation plan developed under subsection (7).
3. Provide a financial plan that demonstrates how the transportation improvement program can be implemented; indicates the resources, both public and private, that are reasonably expected to be available to accomplish the program; identifies any innovative financing techniques that may be used to fund needed projects and programs; and may include, for illustrative purposes, additional projects that would be included in the approved transportation improvement program if reasonable additional resources beyond those identified in the financial plan were available. Innovative financing techniques may include the assessment of tolls, the use of value capture financing, or the use of value pricing. The transportation improvement program may include a project or project phase only if full funding can reasonably be anticipated to be available for the project or project phase within the time period contemplated for completion of the project or project phase.
4. Group projects and project phases of similar urgency and anticipated staging into appropriate staging periods.
5. Indicate how the transportation improvement program relates to the long-range transportation plan developed under subsection (7), including providing examples of specific projects or project phases that further the goals and policies of the long-range transportation plan.
6. Indicate whether any project or project phase is inconsistent with an approved comprehensive plan of a unit of local government located within the jurisdiction of the M.P.O. If a project is inconsistent with an affected comprehensive plan, the M.P.O. must provide justification for including the project in the transportation improvement program.
7. Indicate how the improvements are consistent, to the maximum extent feasible, with affected seaport, airport, and spaceport master plans and with public transit development plans of the units of local government located within the jurisdiction of the M.P.O. If a project is located

within the boundaries of more than one M.P.O., the M.P.O.'s must coordinate plans regarding the project in the transportation improvement program.

(d) Projects included in the transportation improvement program and that have advanced to the design stage of preliminary engineering may be removed from or rescheduled in a subsequent transportation improvement program only by the joint action of the M.P.O. and the department. Except when recommended in writing by the district secretary for good cause, any project removed from or rescheduled in a subsequent transportation improvement program shall not be rescheduled by the M.P.O. in that subsequent program earlier than the 5th year of such program.

(e) During the development of the transportation improvement program, the M.P.O. shall, in cooperation with the department and any affected public transit operation, provide citizens, affected public agencies, representatives of transportation agency employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transit, and other interested parties with reasonable notice of and an opportunity to comment on the proposed program.

(f) The adopted annual transportation improvement program for M.P.O.'s in nonattainment or maintenance areas must be submitted to the district secretary and the Department of Economic Opportunity at least 90 days before the submission of the state transportation improvement program by the department to the appropriate federal agencies. The annual transportation improvement program for M.P.O.'s in attainment areas must be submitted to the district secretary and the Department of Economic Opportunity at least 45 days before the department submits the state transportation improvement program to the appropriate federal agencies; however, the department, the Department of Economic Opportunity, and a metropolitan planning organization may, in writing, agree to vary this submittal date. The Governor or the Governor's designee shall review and approve each transportation improvement program and any amendments thereto.

(g) The Department of Economic Opportunity shall review the annual transportation improvement program of each M.P.O. for consistency with the approved local government comprehensive plans of the units of local government whose boundaries are within the metropolitan area of each M.P.O. and shall identify those projects that are inconsistent with such comprehensive plans. The Department of Economic Opportunity shall notify an M.P.O. of any transportation projects contained in its transportation improvement program which are inconsistent with the approved local government comprehensive plans of the units of local government whose boundaries are within the metropolitan area of the M.P.O.

(h) The M.P.O. shall annually publish or otherwise make available for public review the annual listing of projects for which federal funds have been obligated in the preceding year. Project monitoring systems must be maintained by those agencies responsible for obligating federal funds and made accessible to the M.P.O.'s.

(9) **UNIFIED PLANNING WORK PROGRAM.**—Each M.P.O. shall develop, in cooperation with the department and public transportation providers, a unified planning work program that lists all planning tasks to be undertaken during the program year. The unified planning work program must provide a complete description of each planning task and an estimated budget therefor and must comply with applicable state and federal law.

(10) **AGREEMENTS.**—

(a) Each M.P.O. shall execute the following written agreements, which shall be reviewed, and updated as necessary, every 5 years:

1. An agreement with the department clearly establishing the cooperative relationship essential to accomplish the transportation planning requirements of state and federal law.
  2. An agreement with the metropolitan and regional intergovernmental coordination and review agencies serving the metropolitan areas, specifying the means by which activities will be coordinated and how transportation planning and programming will be part of the comprehensive planned development of the area.
  3. An agreement with operators of public transportation systems, including transit systems, commuter rail systems, airports, seaports, and spaceports, describing the means by which activities will be coordinated and specifying how public transit, commuter rail, aviation, seaport, and aerospace planning and programming will be part of the comprehensive planned development of the metropolitan area.
- (b) An M.P.O. may execute other agreements required by state or federal law or as necessary to properly accomplish its functions.
- (11) METROPOLITAN PLANNING ORGANIZATION ADVISORY COUNCIL.—
- (a) A Metropolitan Planning Organization Advisory Council is created to augment, and not supplant, the role of the individual M.P.O.'s in the cooperative transportation planning process described in this section.
- (b) The council shall consist of one representative from each M.P.O. and shall elect a chairperson annually from its number. Each M.P.O. shall also elect an alternate representative from each M.P.O. to vote in the absence of the representative. Members of the council do not receive any compensation for their services, but may be reimbursed from funds made available to council members for travel and per diem expenses incurred in the performance of their council duties as provided in s. [112.061](#).
- (c) The powers and duties of the Metropolitan Planning Organization Advisory Council are to:
1. Enter into contracts with individuals, private corporations, and public agencies.
  2. Acquire, own, operate, maintain, sell, or lease personal property essential for the conduct of business.
  3. Accept funds, grants, assistance, gifts, or bequests from private, local, state, or federal sources.
  4. Establish bylaws and adopt rules pursuant to ss. [120.536](#)(1) and [120.54](#) to implement provisions of law conferring powers or duties upon it.
  5. Assist M.P.O.'s in carrying out the urbanized area transportation planning process by serving as the principal forum for collective policy discussion pursuant to law.
  6. Serve as a clearinghouse for review and comment by M.P.O.'s on the Florida Transportation Plan and on other issues required to comply with federal or state law in carrying out the urbanized area transportation and systematic planning processes instituted pursuant to s. [339.155](#).
  7. Employ an executive director and such other staff as necessary to perform adequately the functions of the council, within budgetary limitations. The executive director and staff are exempt from part II of chapter 110 and serve at the direction and control of the council. The council is assigned to the Office of the Secretary of the Department of Transportation for fiscal and accountability purposes, but it shall otherwise function independently of the control and direction of the department.
  8. Adopt an agency strategic plan that provides the priority directions the agency will take to carry out its mission within the context of the state comprehensive plan and any other statutory mandates and directions given to the agency.

(12) APPLICATION OF FEDERAL LAW.—Upon notification by an agency of the Federal Government that any provision of this section conflicts with federal laws or regulations, such federal laws or regulations will take precedence to the extent of the conflict until such conflict is resolved. The department or an M.P.O. may take any necessary action to comply with such federal laws and regulations or to continue to remain eligible to receive federal funds.

(13) VOTING REQUIREMENTS.—Each long-range transportation plan required pursuant to subsection (7), each annually updated Transportation Improvement Program required under subsection (8), and each amendment that affects projects in the first 3 years of such plans and programs must be approved by each M.P.O. on a recorded roll call vote, or hand-counted vote, of a majority of the membership present.

History.—s. 1, ch. 79-219; s. 1, ch. 82-9; s. 219, ch. 84-309; s. 3, ch. 84-332; s. 30, ch. 85-55; ss. 1, 2, ch. 87-61; ss. 1, 2, ch. 88-86; s. 1, ch. 88-163; s. 6, ch. 89-301; s. 79, ch. 90-136; s. 4, ch. 92-152; s. 60, ch. 93-164; s. 502, ch. 95-148; s. 54, ch. 95-257; s. 53, ch. 96-323; s. 25, ch. 97-280; s. 70, ch. 98-200; s. 9, ch. 99-256; ss. 33, 103, ch. 99-385; s. 20, ch. 2000-266; s. 23, ch. 2002-183; s. 8, ch. 2003-286; s. 4, ch. 2004-366; s. 6, ch. 2005-281; s. 22, ch. 2005-290; s. 40, ch. 2007-196; s. 70, ch. 2008-4; s. 30, ch. 2008-227; s. 240, ch. 2011-142; s. 55, ch. 2012-174.  
Note.—Former s. 334.215.

## Appendix 7: Complete White House Executive Order

BRIEFING ROOM

# Executive Order on Strengthening American Leadership in Clean Cars and Trucks

AUGUST 05, 2021 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to promote the interests of American workers, businesses, consumers, and communities, it is hereby ordered as follows:

Section 1. Policy. America must lead the world on clean and efficient cars and trucks. That means bolstering our domestic market by setting a goal that 50 percent of all new passenger cars and light trucks sold in 2030 be zero-emission vehicles, including battery electric, plug-in hybrid electric, or fuel cell electric vehicles. My Administration will prioritize setting clear standards, expanding key infrastructure, spurring critical innovation, and investing in the American autoworker. This will allow us to boost jobs — with good pay and benefits — across the United States along the full supply chain for the automotive sector, from parts and equipment manufacturing to final assembly.

It is the policy of my Administration to advance these objectives in order to improve our economy and public health, boost energy security, secure consumer savings, advance environmental justice, and address the climate crisis.

Sec. 2. Light-, Medium-, and Certain Heavy-Duty Vehicles Multi-Pollutant and Fuel Economy Standards for 2027 and Later.

(a) The Administrator of the Environmental Protection Agency (EPA) shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under the Clean Air Act (42 U.S.C. 7401-7671q) to establish new multi-pollutant emissions standards, including for greenhouse



gas emissions, for light- and medium-duty vehicles beginning with model year 2027 and extending through and including at least model year 2030.

(b) The Secretary of Transportation shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under the Energy Independence and Security Act of 2007 (Public Law 110-140, 121 Stat. 1492) (EISA) to establish new fuel economy standards for passenger cars and light-duty trucks beginning with model year 2027 and extending through and including at least model year 2030.

(c) The Secretary of Transportation shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under EISA to establish new fuel efficiency standards for heavy-duty pickup trucks and vans beginning with model year 2028 and extending through and including at least model year 2030.

Sec. 3. Heavy-Duty Engines and Vehicles Multi-Pollutant Standards for 2027 and Later. (a) The Administrator of the EPA shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under the Clean Air Act to establish new oxides of nitrogen standards for heavy-duty engines and vehicles beginning with model year 2027 and extending through and including at least model year 2030.

(b) The Administrator of the EPA shall, as appropriate and consistent with applicable law, and in consideration of the role that zero-emission heavy-duty vehicles might have in reducing emissions from certain market segments, consider updating the existing greenhouse gas emissions standards for heavy-duty engines and vehicles beginning with model year 2027 and extending through and including at least model year 2029.

Sec. 4. Medium- and Heavy-Duty Engines and Vehicles Greenhouse Gas and Fuel Efficiency Standards as Soon as 2030 and Later. (a) The Administrator of the EPA shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under the Clean Air Act to establish new greenhouse gas emissions standards for heavy-duty engines and vehicles to begin as soon as model year 2030.

(b) The Secretary of Transportation shall, as appropriate and consistent



with applicable law, consider beginning work on a rulemaking under EISA to establish new fuel efficiency standards for medium- and heavy-duty engines and vehicles to begin as soon as model year 2030.

Sec. 5. Rulemaking Targets. (a) With respect to the rulemaking described in section 3(a) of this order, the Administrator of the EPA shall, as appropriate and consistent with applicable law, consider issuing a notice of proposed rulemaking by January 2022 and any final rulemaking by December 2022.

(b) With respect to the other rulemakings described in section 2 and section 4 of this order, the Secretary of Transportation and the Administrator of the EPA shall, as appropriate and consistent with applicable law, consider issuing any final rulemakings no later than July 2024.

Sec. 6. Coordination and Engagement. (a) The Secretary of Transportation and the Administrator of the EPA shall coordinate, as appropriate and consistent with applicable law, during the consideration of any rulemakings pursuant to this order.

(b) The Secretary of Transportation and the Administrator of the EPA shall consult with the Secretaries of Commerce, Labor, and Energy on ways to achieve the goals laid out in section 1 of this order, to accelerate innovation and manufacturing in the automotive sector, to strengthen the domestic supply chain for that sector, and to grow jobs that provide good pay and benefits.

(c) Given the significant expertise and historical leadership demonstrated by the State of California with respect to establishing emissions standards for light-, medium-, and heavy-duty vehicles, the Administrator of the EPA shall coordinate the agency's activities pursuant to sections 2 through 4 of this order, as appropriate and consistent with applicable law, with the State of California as well as other States that are leading the way in reducing vehicle emissions, including by adopting California's standards.

(d) In carrying out any of the actions described in this order, the Secretary of Transportation and the Administrator of the EPA shall seek input from a diverse range of stakeholders, including representatives from labor unions,

States, industry, environmental justice organizations, and public health experts.

Sec. 7. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

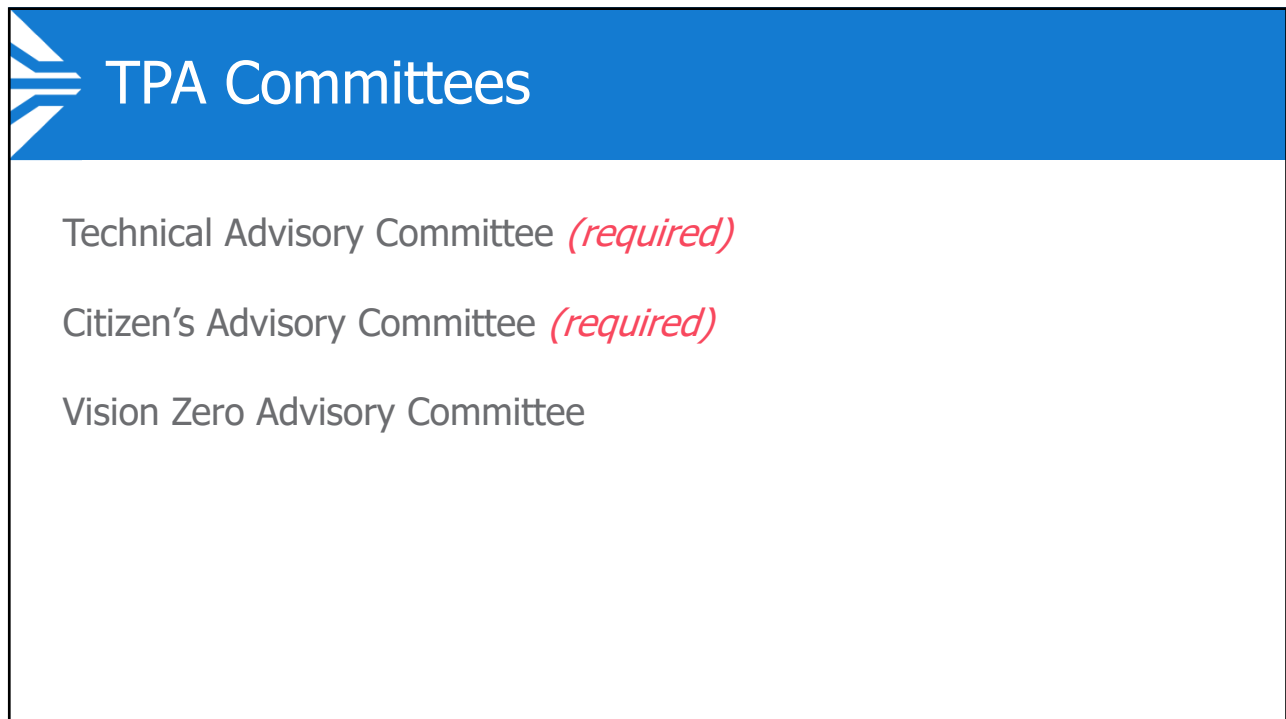
JOSEPH R. BIDEN JR.

THE WHITE HOUSE

August 5, 2021.



1



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## Technical Advisory Committee

Made up of technical staff representing the various local governments within Palm Beach County, primarily planners and engineers.

The TAC provides technical review, comments and recommendations regarding items to be considered by the TPA Governing Board, including transportation plans, programs, studies, and other appropriate documents and regional transportation issues.



339.175 (6)(d) FS: must include, when possible: planners, engineers, aviation authorities, port authorities, public transit, school district, and affected local governments.

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## Technical Advisory Committee

### **Role and Function**

- Technical review
- LRTP and performance measures
- Priority Projects List, TIP, UPWP
- Reviews objective scoring system for TPA Local Initiatives (LI) and State Road Modification (SRM) Annual Grant Programs
- Policy or position statements
- Other studies

### **Membership**

- No limit on number of members
- Members make requests to the Governing Board to be added
- Not required to be Governing Board jurisdictions

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## Technical Advisory Committee

### 26 Current Members

1. City of Boca Raton - Development Services
2. City of Boca Raton - Traffic
3. City of Boynton Beach
4. City of Delray Beach
5. City of Greenacres
6. City of Lake Worth Beach
7. City of Palm Beach Gardens - Planning
8. City of Riviera Beach
9. City of Westlake – New Member
10. City of West Palm Beach - Planning
11. City of West Palm Beach - Engineering
12. FDOT District 4 (Non-voting Advisory)
13. Florida Dept. of Health - Palm Beach County
14. Palm Beach County - Airports
15. Palm Beach County - Engineering
16. Palm Beach County - Planning
17. Palm Tran
18. Port of Palm Beach
19. School District of Palm Beach County
20. SFRTA (Tri-Rail)
21. Town of Jupiter - Engineering
22. Town of Lake Park – New Member
23. Treasure Coast Regional Planning Council
24. Village of Palm Springs
25. Village of Royal Palm Beach
26. Village of Wellington

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## Citizen's Advisory Committee


Responsible for providing the TPA Board with a "citizen's eye" view of ongoing transportation issues in Palm Beach County.

Because one of the base missions of the TPA is to gather local input and desires for transportation within the County, this committee is an important conduit for serving these public interests and submitting their views and concerns to the TPA Board.



Must reflect a broad cross-section of local residents with an interest in the development of an efficient, safe, and cost-effective transportation system. Minorities, the elderly, and the handicapped must be adequately represented.

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## Citizen's Advisory Committee


**Role and Function**

- Review transportation plans
- Share concerns of various segments of the community

**Membership**

- 1 representative per Governing Board member (currently 5 vacancies)
- Governing Board required to ensure representation of minorities, elderly, and persons with disabilities
- Membership also sought to represent environmental, business & construction, development, freight & goods, private transportation, general public

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## Citizen's Advisory Committee

**17 of 21 seats filled**

1. City of Boca Raton	12. PBC County Commissioner D1
2. City of Boca Raton	13. PBC County Commissioner D2
3. City of Boynton Beach	14. PBC County Commissioner D4
4. City of Delray Beach	15. PBC County Commissioner D5
5. City of Palm Beach Gardens	16. PBC County Commissioner D6
6. City of Riviera Beach	17. Port of Palm Beach
7. City of West Palm Beach	18. Town of Jupiter
8. City of West Palm Beach	19. City of Belle Glade (vacant)
9. Village of Palm Springs	20. City of Greenacres (vacant)
10. Village of Royal Palm Beach	21. City of Lake Worth Beach (vacant)
11. Village of Wellington	

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## Vision Zero Advisory Committee

Serves in an advisory capacity to the TPA Governing Board to advance those elements of the TPA’s Vision Zero Action Plan oriented around pedestrian and bicycle safety, and to address other matters and concerns when directed by the TPA Board.



Members consist of representatives from local governments, law enforcement and fire rescues services, school district, health department, active transportation advocacy groups, and other entities as deemed appropriate by the TPA Board to advance those elements of the TPA’s Vision Zero Action Plan oriented around pedestrian and bicycle safety.

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## Vision Zero Advisory Committee


**Role and Function**

- Recent name change to emphasize safety
- Technical review focused on ped, bike and safety
- Reviews scoring system for TA programs and ranks projects
- LRTP, Priority Projects List, TIP, UPWP
- Other studies

**Membership**

- No set number of members
- Members make requests to the Governing Board to be added
- Not required to be Governing Board jurisdictions

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# Vision Zero Advisory Committee

## 18 Current Members

1. Boca Raton Bicycle Club	10. Healthier Jupiter
2. City of Boca Raton	11. Palm Tran
3. City of Boynton Beach	12. PBC - Engineering
4. City of Delray Beach	13. PBC - Environmental Resources Management
5. City of Lake Worth Beach CRA - New	14. PBC - Parks & Recreation
6. City of Palm Beach Gardens	15. PBC - Planning
7. City of West Palm Beach	16. School District of Palm Beach County
8. Disabled Community	17. Town of Jupiter
9. FDOT - Non-Voting Advisory Member	18. Village of Wellington

Staff working towards finding law enforcement and fire rescue services members

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# Adding items to a committee agenda

## TAC Example:

In the event a TAC member desires to have an item added to a TAC meeting agenda or to furnish work product (e.g., written report, video, etc.) of a specific topic to the TAC, it shall first be approved by the TAC. The item or work product **may be added as an agenda item to a future TAC meeting agenda by a TAC member first making the request at a TAC meeting during the member comments section. The TAC will determine whether to add the item or work product to a future meeting and the manner and format in which the matter should be presented.**

Organizations wishing to make a presentation to the TAC, must contact the TPA Executive Director at least ten (10) days prior to the meeting.

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## Adding items to the Board agenda

TPA advisory committee requests to add an item to a TPA Governing Board meeting agenda or to furnish work product (e.g., written report, video, etc.) of a specific topic to the TPA Governing Board **shall first be approved by the committee in the manner and format in which the matter should be presented.**

Organizations wishing to make a presentation to the TPA Governing Board must contact the Executive Director at least ten (10) days prior to the meeting. The Executive Director shall consult with the Chair to determine if the presentation should take place during the public comment period or be added as a regular agenda item.

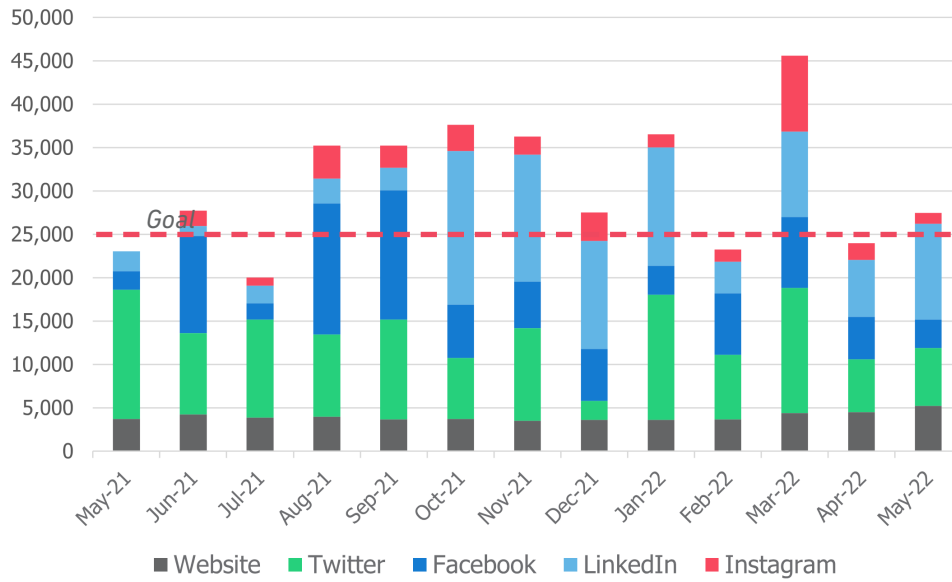
Members of the public wishing to add an item to a future agenda must first request the item during a Board meeting by submitting a public comment. The Board will determine whether to add the item to a future meeting.

# Public Involvement Activity Report 4.A.1

## May 2022

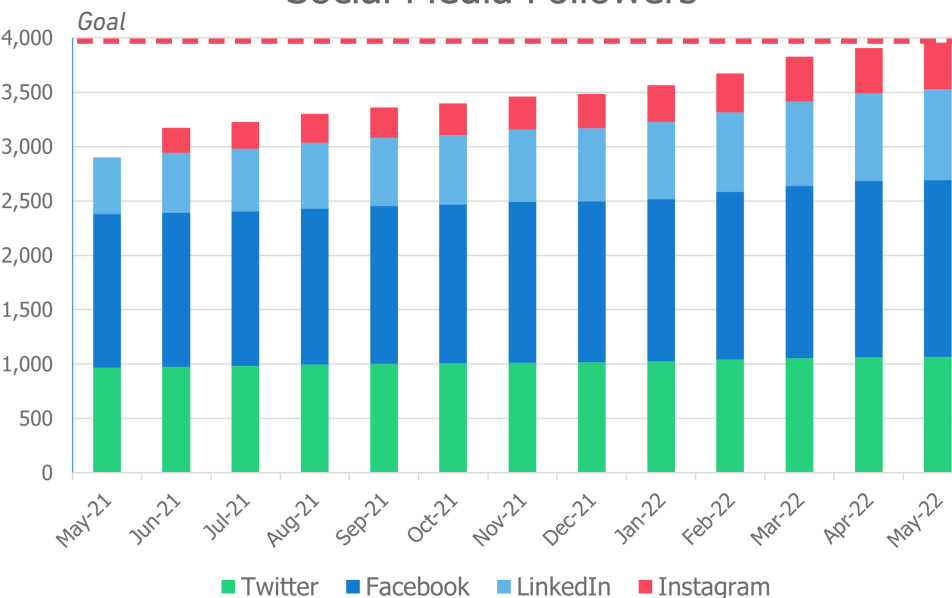
### FY 22 Strategic Plan Goal 1.B Expand Social Media Following

#### Social Media Impressions



### FY 22 Strategic Plan Goal 1.B Expand Social Media Following

#### Social Media Followers



### FY 22 Strategic Plan Goal 1.D: Increase public awareness of the TPA Goal: 40 TPA-related media stories Current: 41 TPA-related media stories

#### Total May Media Coverage

	<b>Total National TV Audience</b> 179,812
	<b>Total National TV Publicity</b> USD \$52,289
	<b>Total Online + Print Audience</b> 2,857,774
	<b>Total Online + Print Publicity</b> USD \$8,957
	<b>Total Local TV Audience</b> 179,812
	<b>Total Local TV Publicity</b> USD \$52,289
	<b>Total Radio Audience</b> 25,318

**Audience:** Represents the number of people who likely viewed a story.

**Publicity Value:** Represents the cost to advertise during that specific time, program and/or platform multiplied by the number of people who viewed the story.

[View this month's media report](#)

### WPTV: Okeechobee Blvd. & SR 7 Multimodal Corridor Study Recommended Alternative



## Project Scheduling Report –June 2022

# 4.A.2

### 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](mailto: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
<b>SIS Capacity</b>					
4441211	I-95 AT BELVEDERE RD SB OFF RAMP	PRELIMINARY ENGINEERING	FDOT	PSE Meeting	6/1/2022
4397581	I-95 AT INDIANTOWN RD	INTERCHANGE - ADD LANES	FDOT	Public Information Workshop	6/7/2022
4441211	I-95 AT BELVEDERE RD SB OFF RAMP	PRELIMINARY ENGINEERING	FDOT	Biddability	6/10/2022
4397581	I-95 AT INDIANTOWN RD	INTERCHANGE - ADD LANES	FDOT	PSE Meeting	6/14/2022
4372791	I-95 AT WOOLBRIGHT RD	INTERCHANGE - ADD LANES	FDOT	Initial Engineering	6/22/2022
4435901	I-95 AT PGA BLVD	ADD SPECIAL USE LANE	FDOT	Construction Notice to Proceed (NTP)	7/13/2022
4465511	BEELINE HWY/SR-710 FROM MARTIN COUNTY LINE TO OLD DIXIE HIGHWAY	ARTERIAL TRAFFIC MGMT SYSTEMS	FDOT	Initial Engineering	7/25/2022
4192511	BEELINE HWY/SR-710 FROM NORTHLAKE BLVD TO BLUE HERON BLVD/SR-708	ADD LANES & RECONSTRUCT	FDOT	Production	8/1/2022
4397581	I-95 AT INDIANTOWN RD	INTERCHANGE - ADD LANES	FDOT	Biddability	8/4/2022
4132601	I-95 AT PALM BEACH LAKES BLVD	INTERCHANGE - ADD LANES	FDOT	Execution Date (Design)	8/5/2022
4358041	I-95 AT BOYNTON BEACH BLVD/SR-804	INTERCHANGE - ADD LANES	FDOT	Public Information Workshop	8/10/2022
4475471	FOREST HILL BLVD/SR-882 AT I-95 INTERCHANGE	INTERSECTION IMPROVEMENT	FDOT	Initial Field Review	8/22/2022
<b>State Road Modifications</b>					
4440791	BOYNTON BEACH FROM I-95 TO US-1 AND NEARBY STREETS	BIKE LANE/SIDEWALK	FDOT	Constructability Plans	6/22/2022
4405755	ATLANTIC AVE/SR-806 FROM CUMBERLAND DR TO JOG RD	ADD LANES & RECONSTRUCT	FDOT	Initial Engineering	7/5/2022
4416321	LAKE WORTH RD/SR-802 FR RAULERSON DR TO PALM BEACH STATE COLLEGE ENT	RESURFACING	FDOT	Construction Notice to Proceed (NTP)	8/6/2022
4400461	LAKE WORTH RD/SR-802 ROUNDABOUT PEDESTRIAN IMPROVEMENTS	PEDESTRIAN SAFETY IMPROVEMENT	FDOT	PSE Meeting	8/16/2022
<b>Local Initiatives Program</b>					
4460921	OKEECHOBEE BLVD AT FOLSOM RD	ROUNDABOUT	PALM BEACH COUNTY	Kickoff Meeting	6/9/2022
4443771	GERMANTOWN RD FROM OLD GERMANTOWN RD TO S CONGRESS AVE	BIKE PATH/TRAIL	DELRAY BEACH	Kickoff Meeting	6/16/2022
4400451	CITYWIDE PEDESTRIAN FACILITIES FOR INDIAN TRAIL IMPROVEMENT DISTRICT	PED FACILITIES	FDOT	Construction Notice to Proceed (NTP)	6/27/2022
<b>Transportation Alternatives Program</b>					
4460801	OKEECHOBEE BLVD FROM A RD TO FOLSOM RD	BIKE PATH/TRAIL	PALM BEACH COUNTY	Kickoff Meeting	6/9/2022
4460841	VARIOUS LOCATIONS ALONG HOLLY DRIVE	SIGNING/PAVEMENT MARKINGS	PALM BEACH GARDENS	Production	8/1/2022
<b>Other FDOT &amp; Local Projects</b>					
4417551	US-1/SR-5 FROM BROWARD COUNTY LINE TO SPANISH RIVER BLVD	ARTERIAL TRAFFIC MGMT SYSTEMS	FDOT	Production	6/6/2022
4438431	LAKE WORTH RD/SR-802 AT HAVERHILL RD	WIDEN/RESURFACE EXIST LANES	FDOT	Biddability	6/9/2022
4378781	MILITARY TRAIL/SR 809 AT FOREST HILL BLVD	INTERSECTION IMPROVEMENT	FDOT	Construction Notice to Proceed (NTP)	7/6/2022

FM #	Location	Type of Work	Lead Agency	Phase Milestone	Date
4475511	I-95 FROM 12TH AVE S TO 10TH AVE N	LIGHTING	FDOT	Initial Field Review	7/7/2022
4475491	FOREST HILL BLVD/SR-882 FROM OLIVE TREE BLVD TO JOG RD	LIGHTING	FDOT	Initial Field Review	7/8/2022
4456231	I-95 FROM SOUTH OF PALM BEACH LAKES BLVD TO NORTH OF 45TH ST	LIGHTING	FDOT	Production	8/1/2022
4331093	I-95 FROM BROWARD COUNTY LINE TO LINTON BLVD - EXPRESS LANES	LANDSCAPING	FDOT	Biddability	8/18/2022
4475451	OKEECHOBEE BLVD/SR-704 FROM EAST OF MILITARY TRL TO I-95	LIGHTING	FDOT	Initial Field Review	8/22/2022
4475531	US-1/DIXIE HWY FROM NORTH OF LUCERNE AVE TO WPB CANAL	LIGHTING	FDOT	Initial Field Review	8/22/2022
4458821	SR-7/US-441 AT LAKE WORTH RD	INTERSECTION IMPROVEMENT	FDOT	Initial Engineering	8/23/2022
<b>Major Maintenance</b>					
4476711	OKEECHOBEE BLVD/SR-704 FROM W OF I-95 TO AUSTRALIAN AVE	RESURFACING	FDOT	Initial Field Review	5/26/2022
4461731	FEDERAL HWY FROM S OF 10TH AVE SOUTH TO 6TH AVE N	RESURFACING	FDOT	Initial Engineering	6/1/2022
4461011	SR-80/US-98 FROM EAST OF PARKER AVE TO WEST OF WASHINGTON RD	RESURFACING	FDOT	Production	6/6/2022
4457691	A1A / BLUE HERON BLVD OVER INTRACOASTAL WATERWAY	BRIDGE-REPAIR/REHABILITATION	FDOT	Biddability	6/6/2022
4460991	US-1 FROM N QUADRILLE BLVD TO PALM BEACH LAKES BLVD	RESURFACING	FDOT	PSE Meeting	6/6/2022
4461012	SR-80/US-98 FROM EAST OF PARKER AVE TO WEST OF WASHINGTON RD	BRIDGE REHABILITATION	FDOT	Production	6/6/2022
4428911	US-1 OVER EARMAN RIVER BRIDGE	BRIDGE REPLACEMENT	FDOT	Biddability	6/9/2022
4461771	SR-7/US-441 FROM NORTH OF SOUTHERN BLVD/SR-80 TO OKEECHOBEE BLVD/SR-704	RESURFACING	FDOT	Biddability	6/9/2022
4414661	SPANISH RIVER BLVD/SR-800 OVER ICWW	BRIDGE-REPAIR/REHABILITATION	FDOT	PSE Meeting	6/15/2022
4439941	SR-15/US-441 FROM SOUTH OF SHIRLEY DR TO EAST MAIN ST	RESURFACING	FDOT	Construction Notice to Proceed (NTP)	6/24/2022
4414661	SPANISH RIVER BLVD/SR-800 OVER ICWW	BRIDGE-REPAIR/REHABILITATION	FDOT	Biddability	7/1/2022
4484371	BOYNTON BCH BLVD/SR-804 FROM ORCHID GROVE TRAIL TO W OF PALM ISLES DR	RESURFACING	FDOT	Agency Scope Review	7/6/2022
4484151	US-1/SR-5 FROM BELVEDERE RD TO SR-704/LAKEVIEW AVE	RESURFACING	FDOT	Agency Scope Review	7/6/2022
4461031	MILITARY TRAIL FROM SOUTH OF DEVONS RD TO NORTH OF FLAG DR	RESURFACING	FDOT	Biddability	7/7/2022
4460991	US-1 FROM N QUADRILLE BLVD TO PALM BEACH LAKES BLVD	RESURFACING	FDOT	Biddability	7/7/2022
4463741	SR-700/CONNERS HWY FROM NORTH OF 1ST ST TO WEST OF SR-80	RESURFACING	FDOT	Public Information Workshop	8/4/2022
4484151	US-1/SR-5 FROM BELVEDERE RD TO SR-704/LAKEVIEW AVE	RESURFACING	FDOT	Execution Date (Design)	8/5/2022
4484361	LAKE WORTH RD/SR-802 FROM W OF CYPRESS EDGE DR TO W OF CYPRESS ISLES WAY	RESURFACING	FDOT	Execution Date (Design)	8/5/2022
4484371	BOYNTON BCH BLVD/SR-804 FROM ORCHID GROVE TRAIL TO W OF PALM ISLES DR	RESURFACING	FDOT	Execution Date (Design)	8/5/2022
4476571	YAMATO RD/SR-794 FROM WEST OF I-95 TO US-1/FEDERAL HWY	RESURFACING	FDOT	Initial Engineering	8/8/2022
4461001	SR-80 FROM SR-25/US-27 TO EAST OF GLADES GLEN DR	RESURFACING	FDOT	Public Information Workshop	8/9/2022

FM #	Location	Type of Work	Lead Agency	Phase Milestone	Date
4463741	SR-700/CONNERS HWY FROM NORTH OF 1ST ST TO WEST OF SR-80	RESURFACING	FDOT	PSE Meeting	8/11/2022
4398451	SR-715 FROM SR-80 TO W OF CANAL ST SOUTH	RESURFACING	FDOT	Public Information Workshop	8/11/2022
4476611	A1A FROM SE 31ST TO SOUTH OF GRAND BAY CT	RESURFACING	FDOT	Initial Engineering	8/12/2022
4476691	E OCEAN AVE/SR-804 FROM SR-5/US-1 TO A1A	RESURFACING	FDOT	Initial Field Review	8/15/2022
4461001	SR-80 FROM SR-25/US-27 TO EAST OF GLADES GLEN DR	RESURFACING	FDOT	PSE Meeting	8/16/2022
4476631	A1A FROM SOUTH OF LAKE AVE TO N OF IBIS WAY	RESURFACING	FDOT	Initial Engineering	8/16/2022
4398451	SR-715 FROM SR-80 TO W OF CANAL ST SOUTH	RESURFACING	FDOT	PSE Meeting	8/18/2022
4461021	SR-15 FROM N OF 1ST ST TO PALM BEACH/MARTIN COUNTY LINE	RESURFACING	FDOT	Public Information Workshop	8/18/2022



# PALM BEACH Transportation Planning Agency

# 4.A.3

## Fiscal Report

FY 2022 3rd Quarter  
Period 01/01/2022 - 03/31/2022

Grant Funded Activities	Annual Budget	Budget YTD	Actual YTD	Variance <sup>1</sup>
<b>Revenue Source</b>				
Federal Highway Administration (FHWA)	\$ 2,918,452	\$ 2,211,714	\$ 1,988,890	-10%
Federal Transit Administration (FTA)	\$ 590,245	\$ 442,684	\$ 472,575	7%
Commission for Transportation Disadvantaged	\$ 49,871	\$ 37,403	\$ 37,924	1%
<b>Total Revenue</b>	<b>\$ 3,558,568</b>	<b>\$ 2,691,801</b>	<b>\$ 2,499,388</b>	<b>-7%</b>
<b>Expenditures</b>				
Personnel & Benefits	\$ 1,967,989	\$ 1,475,992	\$ 1,339,488	-9%
Travel & Training	\$ 78,000	\$ 58,500	\$ 23,573	-60%
Consultant Services	\$ 862,572	\$ 646,929	\$ 624,454	-3%
Direct Expenses				
Facilities	\$ 320,000	\$ 240,000	\$ 261,649	9%
Professional Services	\$ 79,000	\$ 59,250	\$ 11,260	-81%
Administrative Services & Fees	\$ 36,000	\$ 27,000	\$ 11,322	-58%
Graphics & Legal Advertising	\$ 20,800	\$ 15,600	\$ 4,518	-71%
Operational Supplies & Equipment	\$ 92,707	\$ 69,530	\$ 101,527	46%
Capital Equipment & Improvements	\$ 10,000	\$ 7,500	\$ -	-100%
<b>Total Expenditures</b>	<b>\$ 3,467,068</b>	<b>\$ 2,600,301</b>	<b>\$ 2,377,792</b>	<b>-9%</b>
<b>Transfers to Other Agencies</b>				
Transfer to FDOT D4	\$ 6,500	\$ 6,500	\$ 6,500	
Transfer to BROWARD MPO	\$ 20,000	\$ 20,000	\$ 20,000	0%
Transfer to MIAMI DADE TPO	\$ 65,000	\$ 65,000	\$ 65,000	0%
<b>Total Transfers</b>	<b>\$ 91,500</b>	<b>\$ 91,500</b>	<b>\$ 91,500</b>	<b>0%</b>
<b>Total Expenditures &amp; Transfers</b>	<b>\$ 3,558,568</b>	<b>\$ 2,691,801</b>	<b>\$ 2,469,292</b>	<b>-8%</b>
<b>Net Revenue Less Expenditures &amp; Transfers</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 30,097</b>	

Locally Funded Activities	Annual Budget	Budget YTD	Actual YTD	Variance <sup>1</sup>
<b>Revenue Source</b>				
TPA Member Dues	\$ 141,121	\$ 141,121	\$ 141,124	0%
<b>Expenditures</b>				
Maximize Agency Effectiveness	\$ 45,000	\$ 33,750	\$ 40,567	20%
Improve Public Engagement	\$ 40,000	\$ 30,000	\$ 8,745	-71%
Enhance Staff Performance	\$ 15,000	\$ 11,250	\$ 7,207	-36%
<b>Total Expenditures</b>	<b>\$ 100,000</b>	<b>\$ 75,000</b>	<b>\$ 56,518</b>	<b>-25%</b>
<b>Net Revenue Less Expenditures<sup>3</sup></b>	<b>\$ 41,121</b>	<b>\$ 66,121</b>	<b>\$ 84,606</b>	

### Notes

1. Variance is calculated as (Actual YTD - Budget YTD) / Budget YTD.
2. Transfer for the Regional Plan occurs only in Q1.
3. Net revenue less expenditures for Locally Funded Activities will be applied to the TPA reserve fund at end of the fiscal year

## Travel & Mileage Detail

FY 2022 3rd Quarter  
Period 01/01/2022 - 03/31/2022

### 50401 Travel

Traveler	Date	Location	State	Reason/Purpose	Amount
CReed	01/26-27/2022	Orlando	FL	2022 MPOAC	\$156.38
VNeilson	1/26-1/27/2022	Orlando	FL	MPOAC	\$285.68
AUhlir	01/19,20,25/2022	WPB	FL	Leadership Palm Beach Focus	\$750.00
AUhlir	1/27/2022	WPB	FL	BDB Q2 Luncheon	\$60.00
MMurray	1/27/2022	WPB	FL	BDB Q2 Luncheon	\$60.00
KPeterson	01/11-13/2022	Online	FL	Smart Growth America Equity Summit	\$65.00
Pierce	2/11/2022	West Palm Beach	FL	PBC SHRM Meeting	\$60.95
Gabriel	2/7/2022	West Palm Beach	FL	ULI WPB 2022	\$90.00
Gabriel	2/22/2022	Orlando	FL	Model Task Force 2022	\$574.46
Neilson	3/25/2022	Stuart	FL	Regional Economic Dev. Summit for Treasure Coast	\$58.06
Neilson	3/20-3/23/2022	Fort Worth	TX	Think Transit Summit	\$1,293.98
Frank	3/27-3/30/2022	Virtual	Virtual	National Bike Summit	\$160.00

Total Business Travel

\$3,614.51

### 50156 Tuition Reimbursement and Training

Staff Member	Description	Amount:
Frank	Tuition Reimbursement -reimbursement to agency for early departure	(\$1,875.00)

Total Tuition and Training Reimbursements

-\$1,875.00

### 50401 & 50402 Mileage

Traveler	Period	Amount:
VNeilson	Jan-22	\$21.88
MMurray	Jan-22	\$50.02
MPierce	Jan-22	\$9.13
MNapoleon	Mar-22	\$41.00
MMurray	Mar-22	\$59.00
CSparks	Mar-22	\$56.51
AFrank	Mar-22	\$100.80
RWeinroth	Mar-22	\$28.00
JPrice	Feb-22	\$49.00
VNeilson	Feb-22	\$92.41
VNeilson	Feb-22	\$132.28
GGabriel	Feb-22	\$103.00
CCampobasso	Feb-22	\$144.70
AUhlir	Feb-22	\$41.86
AFrank	Feb-22	\$21.58
MMurray	Feb-22	\$90.44
RWeinroth	Feb-22	\$83.10

Total Vicinity Mileage

\$1,124.71

Total Period Travel

\$2,864.22



FLORIDA DEPARTMENT OF TRANSPORTATION  
**MPO JOINT CERTIFICATION  
STATEMENTS & ASSURANCES**

**4.A.4**  
325-010-03  
POLICY PLANNING  
11/17

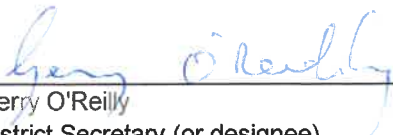
**JOINT CERTIFICATION STATEMENT ON THE METROPOLITAN  
TRANSPORTATION PLANNING PROCESS**

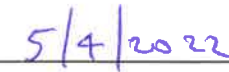
Pursuant to the requirements of 23 U.S.C. 134(k)(5) and 23 CFR 450.334(a), the Department and the MPO have performed a review of the certification status of the metropolitan transportation planning process for the Palm Beach TPA with respect to the requirements of:


1. 23 U.S.C. 134 and 49 U.S.C. 5303;
2. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 C.F.R. Part 21
3. 49 U.S.C. 5332 prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
4. Section 1101(b) of the FAST Act and 49 C.F.R. Part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
5. 23 C.F.R. Part 230 regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
6. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and the regulations found in 49 C.F.R. Parts 27, 37, and 38;
7. The Older Americans Act, as amended (42 U.S.C. 6101) prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
8. Section 324 of 23 U.S.C. regarding the prohibition of discrimination on the basis of gender; and
9. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 C.F.R. Part 27 regarding discrimination against individuals with disabilities.

Included in this certification package is a summary of noteworthy achievements by the MPO, attachments associated with these achievements, and (if applicable) a list of any recommendations and/or corrective actions. The contents of this Joint Certification Package have been reviewed by the MPO and accurately reflect the results of the joint certification review meeting held on 01/26/22.

Based on a joint review and evaluation, the Florida Department of Transportation and the recommend that the Metropolitan Planning Process for the Palm Beach TPA to be certified.

  
Name: Gerry O'Reilly  
Title: District Secretary (or designee)

  
Date

  
Name: Valerie Neilson  
Title: Palm Beach TPA Executive Director (Interim)

04/15/2022  
Date

## Part 1 Section 5: Noteworthy Practices & Achievements

One purpose of the certification process is to identify improvements in the metropolitan transportation planning process through recognition and sharing of noteworthy practices. Please provide a list of the MPOs noteworthy practices and achievements below.

### Engage the Public

- Hosted several educational webinars on topics including Women in Bicycling, The Future of Public Transportation and Cycling for Sustainable Cities.
- Updated the TPA's bi-weekly newsletter to increase our open rate by 5% and our click rate by 1%, both 5% above the industry average.
- Increased public awareness of the TPA by securing media placements in dozens of television, radio and print stories and establishing new relationships with local reporters to continue coverage in the future.
- Expanded TPA social media presence by increasing followers and impressions across all platforms, with a goal of reaching 4,000 total followers and 25,000 monthly impressions by June 30, 2022.
- Presented to various partner agencies and groups about the TPA's work, mission and vision including local HOAs, municipalities, Palm Beach County League of Cities, Safe Kids Palm Beach County, South Florida Business Council and County/City Managers Association.
- Hosted an in-person and two virtual workshops for the Okeechobee Boulevard & SR 7 Multimodal Corridor Study and completed various other in-person and virtual outreach efforts.
- Completed an "About Us" video to inform the public about the work of the TPA, as well as videos about the Benefits of Complete Streets, FL Senate Bill 950 and profiles on Governing Board members.

### Plan the System

- The TPA began evaluating all pedestrian & bicycle fatal crashes quarterly for distribution to the TPA committees & Governing Board. Although the implementation and coordination of the reports is still being refined, the reports create the sense of urgency and reminder of the significance of safety in all the TPA's decisions.
- Conducted pedestrian and bicycle safety field reviews and created an interactive map to showcase the findings. Available at: [PalmBeachTPA.org/WalkBikeAudits](https://PalmBeachTPA.org/WalkBikeAudits)

- Implemented an ArcGIS online open data hub to provide easy access to TPA data. Available at: <https://opendata-palmbeachtpa.hub.arcgis.com/>.
- Commenced multimodal transportation studies on the Okeechobee Boulevard & SR 7 transit plan corridors.
- Analyzed impacts of the COVID-19 pandemic on current and future travel patterns within Palm Beach County.
- Collected pedestrian and bicycle count data at 12 intersections in collaboration with Palm Beach County Traffic Operations and Iteris VantageLive.
- Identified 2 new locations for FDOT temporary counters and collected pedestrian and bicycle counts for a 2-week period in November 2021.
- Identified 1 new location for FDOT to install a continuous pedestrian and bicycle count station.
- Assisted the Village of Palm Springs with a Transportation Mobility Plan that was adopted in September 2021.
- Assisted the Indian Trail Improvement District with a Mobility Plan.
- Conducted an evaluation of existing SUN Trail corridors and their current conditions, as well as recommended new alignments based on existing facilities.
- Analyzed existing pedestrian and bicycle conditions along A1A throughout Palm Beach County, and recommended improvements where right of way allowed.

### **Prioritize Funding**

- Established a new application process for small-scale state roadway projects called State Road Modifications (SRM), which allocates a portion of District Dedicated Revenue (DDR) funds to enhance state roadways in Palm Beach County through Complete Streets, traffic calming and intersection improvement projects. The program encourages the submittal of projects that align with upcoming FDOT maintenance projects.
- Developed a performance measures interactive dashboard through the MySidewalk platform, similar to the Broward MPO. The TPA included additional information on the dashboard on how the TPA is achieving the measures.
- Updated Local Initiatives (LI), Transportation Alternatives (TA) and introduced SRM scoring system to ensure projects advance TPA priorities.
- Supported TPA Board Member, Boca Raton Council Member Andy Thomson, during his attendance in the 2021 Champions Institute.

- Provided letter of support to TCRPC for their application to the US Economic Development Administration for funding to add pedestrian and bicycle amenities along the East Coast Greenway.

### **Implement Projects**

- Worked with FDOT to provide scheduling milestone report, which the TPA re-organizes based on TPA priorities and provides monthly in agenda packets for all advisory committee and Governing Board meetings. An example is available at: [https://www.palmbeachtpa.org/static/sitefiles/meeting/2021\\_DEC\\_16\\_TPA\\_Agenda-Backup.pdf#page=192](https://www.palmbeachtpa.org/static/sitefiles/meeting/2021_DEC_16_TPA_Agenda-Backup.pdf#page=192)
- Led Vision Zero initiatives in Palm Beach County, including adopting an updated Vision Zero Action Plan, while encouraging local agencies to adopt policies.
- Participated in the FDOT's Pedestrian Bicycle Safety Coalition as a member of the Vision Zero emphasis area.

### **Collaborate with Partners**

- Organized and hosted a regional Safe Streets Summit that was held virtually with the Broward MPO and Miami-Dade TPO in January 2021.
- Hosted walk and bicycle safety audits with community and government partners on Indiantown Road in Jupiter, at Palm Beach Gardens Elementary School, Banyan Creek Elementary School in Delray Beach, and at the intersection of Donald Ross Road and U.S. 1 in Juno Beach to identify pedestrian and bicycle safety concerns by experiencing the built environment and recording findings through an internet-browser based tool created in-house.
- Held a South Florida Transportation Surtax Roundtable with the Broward MPO, Broward County Transit, Broward County, Miami-Dade County and members of the TPA Governing Board on December 6, 2021.
- Hosted a Mobility Week Bike Ride with Tri-Rail, Palm Tran, FDOT and South Florida Commuter Services on November 4, 2021.
- Participated in the U.S. DOT's Office of Small and Disadvantaged Business virtual Legacy Masterclass Series.
- Coordinated a Florida Bicycle Month ride in March 2021, inviting elected officials, municipal staff, partner agencies and the public.
- Encouraged local agencies to adopt Florida Bicycle Month Proclamations, resulting in 10 municipal adoptions, Palm Beach County's Board of County Commissioners and the TPA Governing Board.

- Participated in the Florida Love to Ride Challenge in May 2021 and the National Bike Challenge in November 2021 to compete with partner agencies for most miles logged on a bicycle.
- Created Pedestrian and Bicycle Fatal Crash Summary reports and collaborated with stakeholders on improvements to mitigate future crashes.

**Administer the Agency**

- Awarded a Bicycle Friendly Business and Commuter Friendly Workplace.
- Continued to offer hybrid meeting options for TPA Board and advisory committee members as well as easy access for the public to participate and provide public comment. All virtual meetings utilized the Zoom webinar platform with live closed captioning for greater accessibility.
- Adopted the FY 22 Strategic Plan with updated actions and outcomes based on TPA Board and advisory committee feedback.
- Amended the TPA Holidays to include Juneteenth, in line with it becoming a federal holiday.
- Hired and onboarded a Public Relations Director, Public Relations Specialist, Executive Secretary, Long Range Transportation Plan Coordinator, and an Interim Executive Director.
- Executed contracts for external auditing services, building cleaning and maintenance services, copier services, a learning management system and with training vendors for ongoing staff learning opportunities, and with a recruitment firm to hire a permanent Executive Director.
- Completed the TPA's first Single Audit as an independent agency.
- Procured promotional items and supplies for increased public engagement.
- Navigated the local, state, and federal changes to rules and laws related to the COVID-19 pandemic.
- Established a fitness reimbursement program to be implemented in CY 22.
- Established a TPA Governing Board Executive Committee that will meet annually to review the TPA's Strategic Plan, review and recommend content related to other TPA initiatives, facilitate the hiring process for a new Executive Director, and undertake other tasks as may be assigned by the Governing Board.

## Part 2 Section 9: Recommendations and Corrective Actions

Please note that the District shall report the identification of and provide status updates of any corrective action or other issues identified during certification directly to the MPO Board. Once the MPO has resolved the corrective action or issue to the satisfaction of the District, the District shall report the resolution of the corrective action or issue to the MPO Board. The District may identify recommendations and corrective actions based on the information in this review, any critical comments, or to ensure compliance with federal regulation. The corrective action should include a date by which the problem must be corrected by the MPO.

### Status of Recommendations and/or Corrective Actions from Prior Certifications

N/A

### Recommendations

Based on a recent audit from the Office of Inspector General (OIG), it is evident that a more systematic (and sequential) submittal of invoices and UPWP modifications is necessary in order to maintain consistency among the invoices, the amount expended from each task and the balances available for each task – as opposed to submitting multiple documents (invoices/modifications) for review and approval at the same time. Moving forward, the Department will only accept a single invoice or UPWP modification for review/approval. Once approved the related document or subsequent document can be submitted for review, approval, and processing. This will ensure accuracy of the information and eliminate future delays due to subsequent submittals.

### Corrective Actions

N/A