



DATE: Wednesday, June 9, 2021

TIME: 9:00 a.m.

Wireless access available

Network = MpoBoardRoom

Password = mpoaccess

LOCATION: MetroPlan Orlando
250 S. Orange Ave, Suite 200
Orlando, Florida 32801

Parking Garage: 25 W. South Street

PUBLIC ACCESS: To join the meeting from your computer, tablet or smartphone, please use this link:

<https://us02web.zoom.us/j/85130732415?pwd=dDRhVWRERGRGZkTHY5anpVWV4rT2hKUT09>

Passcode: 604217

To dial in, please see the calendar item for this meeting:

[MetroPlan Orlando Board – Hybrid Meeting](#)

In Person:** The MetroPlan Orlando offices, in response to the COVID-19 pandemic, are following guidelines for group gatherings by limiting access for the board meeting to maintain safe social distancing. Members of the public may access this meeting virtually and participate via the Zoom link above, or by dialing in. A limited number of the public may attend in person space permitting. We strongly encourage virtual participation in order to provide the safest meeting environment for board members, staff and the public. Masks are required and temperature checks will be conducted upon entrance. The agenda packet is available at MetroPlanOrlando.org in the Calendar section. New to Zoom? You can get the app ahead of time and be ready for the meeting. Visit Zoom.com. **For technical support during the meeting, use the Raise Hand function (located in the Participants tab) to be contacted by a meeting moderator.

MetroPlan Orlando offers tips for virtual meeting participation on our website. Tip sheets include:

- [How to get technically set up for the virtual meeting](#)
- [How meeting roles and public participation happen virtually](#)
- [Steps and options for making a public comment at a virtual meeting](#)

This information can be accessed at: MetroPlanOrlando.org/Virtualmeetings

Thank you for silencing your cell phones during the meeting and for those of you attending virtually for keeping microphones muted unless you are recognized to speak.

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|------|--|----------------------------|
| I. | CALL TO ORDER AND PLEDGE OF ALLEGIANCE (Boardroom) | Chairwoman Janer |
| II. | CHAIR'S ANNOUNCEMENTS | Chairwoman Janer |
| III. | EXECUTIVE DIRECTOR'S ANNOUNCEMENTS | Mr. Gary Huttman |
| IV. | FDOT REPORT | Sec. Jared Perdue |
| V. | ROLL CALL AND CONFIRMATION OF QUORUM | Ms. Lisa Smith |
| VI. | AGENDA REVIEW | Mr. Gary Huttman |
| VII. | COMMITTEE REPORTS | |
| | Municipal Advisory Committee | Council Member Keith Trace |
| | Community Advisory Committee | Ms. Sarah Elbadri |
| | Technical Advisory Committee | Mr. Nabil Muhaisen |
| | Transportation Systems Management & Operations Committee | Mr. Doug Jamison |

VIII. PUBLIC COMMENTS ON ACTION ITEMS

Public comments relating to **Action Items** may be submitted in advance of the meeting, by email to Comment@MetroPlanOrlando.org. Emailed comments will be read into the record by a meeting moderator. Public comments may be submitted prior to the meeting by dialing 407-906-2347 to leave a voice message. Voice messages will be summarized and read into the record by the meeting moderator.

Anyone wishing to speak during the hybrid meeting should complete an [electronic speaker card](#). The Chairperson will first recognize online attendees. When called upon, speakers should use the Raise Hand feature on the Zoom platform, and you will then be invited to unmute your microphone to speak. Each speaker should state his/her name and address for the record and is limited to two minutes. In-person speakers will be called next. Again, each speaker is limited to two minutes. People wishing to speak on other items will be acknowledged in the same way, under Agenda Item XII.

IX. CONSENT AGENDA (Tab 1)

- A. Approval of Minutes from May 12, 2021 Board meeting - page #5
- B. Approval of Financial Report for April 2021 - page #13
- C. Approval of Budget Amendment #1 for FY 2022 – page #15
- D. Approval of FY 2021 Year End Budget Amendment – page #23

E. Approval of Community Advisory Committee (CAC) appointment (TD Advocate)– page #24

X. OTHER ACTION ITEMS

A. FDOT Amendment to FY 2020/21 - 2024/25 TIP (Tab 2)
Mr. Keith Caskey- MetroPlan Orlando Staff

FDOT TIP Amendment Request:

FM #4390752 – Sunset Drive Livable Streets from Oxford Road to Button Road

FM #4471031 – SR 46 Resurfacing from East of Upsala Road to French Avenue

B. Approval of the 2045 MTP Amendment (Tab 3)
Mr. Alex Trauger – MetroPlan Orlando Staff

XI. INFORMATION ITEMS FOR ACKNOWLEDGEMENT (Tab 4)

A. Executive Director’s Report page – page #33

B. FDOT Monthly Construction Status Report – page #35

C. Letter to Secretary Buttigieg in Support of Osceola County RAISE Request-Neptune Road – page #40

D. Joint Comments Letter on Metropolitan Statistical Areas & Urban Areas – page #41

E. Letter of Support for Lynx FY 2021 Pilot Program for State Road (SR) 436 Transit-Oriented Development Planning – page #44

F. Public Transit in America Infographic – APTA Fly-In – page #45

G. Bus Manufacturing Jobs Across America Infographic– APTA Fly-In – page #46

H. Rail Manufacturing Jobs Across America Infographic – APTA Fly-In – page #

I. Mobility Week October 29-November 5, 2021 – page #48

J. Air Quality Report-April 2021 – page #49

K. Featured Research and Articles:

- Automakers and universities team up to fix AV industry’s talent gap, Smart Cities Dive – page #51
- Public Transportation must change after COVID-19: Steven E. Polzin, Ph.D. Reason Foundation– page #60

XII. OTHER BUSINESS/PRESENTATIONS

A. Preview of the FY 2021/22 – FY 2025/26 TIP
Mr. Keith Caskey, MetroPlan Orlando Staff

- B. Preview of the FY 2026/27 – 2035/36 Prioritized Project List
Mr. Nick Lepp, MetroPlan Orlando Staff
- C. Presentation on CFX 2045 Master Plan
Ms. Laura Kelley, Executive Director, CFX

XIII. PUBLIC COMMENTS (GENERAL)

Comments from the public, of a general nature, will be heard during this comment period. Public comments submitted in advance of the meeting, by email to Comment@MetroPlanOrlando.org or phone to 407-906-2347, will be read into the record by a meeting moderator. People wishing to speak during the hybrid meeting should complete an [electronic speaker card](#). The Chairperson will first recognize online attendees. When called upon, speakers should use the Raise Hand feature on the Zoom platform, and you will then be invited to unmute your microphone to speak. Each speaker should state his/her name and address for the record and is limited to two minutes. In-person speakers will be called next. Again, each speaker will have two minutes to speak.

XIV. NEXT MEETING: Wednesday, July 7, 2021*

***NOTE: Meeting date changed to accommodate local budget hearings**

XV. ADJOURNMENT

Public participation is conducted without regard to race, color, national origin, sex, age, disability, religion, or family status. Persons wishing to express concerns, who require special assistance under the Americans with Disabilities Act, or who require language services (free of charge) should contact MetroPlan Orlando by phone at (407) 481-5672 or by email at info@metroplanorlando.org at least three business days prior to the event.

La participación pública se lleva a cabo sin distinción de raza, color, origen nacional, sexo, edad, discapacidad, religión o estado familiar. Las personas que deseen expresar inquietudes, que requieran asistencia especial bajo la Ley de Americanos con Discapacidad (ADA) o que requieran servicios de traducción (sin cargo) deben ponerse en contacto con MetroPlan Orlando por teléfono (407) 481-5672 (marcar 0) o por correo electrónico info@metroplanorlando.org por lo menos tres días antes del evento.

As required by Section 286.0105, Florida Statutes, MetroPlan Orlando hereby notifies all interested parties that if a person decides to appeal any decision made by MetroPlan Orlando with respect to any matter considered at such meeting or hearing, he or she may need to ensure that a verbatim record is made to include the testimony and evidence upon which the appeal is to be based.

TAB 1





MetroPlan Orlando Board

MEETING MINUTES

DATE: Wednesday, May 12, 2021
TIME: 9:00 a.m.
LOCATION: MetroPlan Orlando – Hybrid Virtual
Park Building
250 S. Orange Ave, Suite 200
Orlando, FL 32801

Commissioner Viviana Janer, Board Chair, Presided

Members in attendance were:

Hon. Lee Constantine, CFX
Hon. Bob Dallari, Seminole County
Hon. Jerry L. Demings, Orange County
Hon. Buddy Dyer, City of Orlando
Hon. Jim Fisher, City of Kissimmee
Hon. Viviana Janer, LYNX/Central Florida Commuter Rail Commission
Hon. Keith Trace, Municipal Advisory Committee
Hon. Christine Moore, Orange County
Hon. Bryan Nelson, City of Apopka
Mr. Stephen Smith, Sanford Airport Authority
Hon. Mayra Uribe, Orange County
Hon. Jay Zembower, Seminole County

Members attending the meeting via the Zoom Platform:

Hon. Brandon Arrington, Central Florida Expressway Authority
Hon. Pat Bates, City of Altamonte Springs
Hon. Nicole Wilson for Emily Bonilla, Orange County
Hon. Ricky Booth, Osceola County
Hon. Maribel Gomez Cordero, Orange County
Mr. M. Carson Good, GOAA
Hon. Tony Ortiz, City of Orlando
Hon. Art Woodruff, City of Sanford
Hon. Victoria Siplin, Orange County

Advisors in Attendance:

FDOT Secretary Jared Perdue, District 5
Ms. Loreen Bobo, FDOT, District 5
Ms. Anna Taylor, FDOT, District 5
Mr. Siaso Fine, Florida's Turnpike Enterprise
Ms. Sarah Elbadri, Community Advisory Committee
Mr. Doug Jamison, Transportation Systems Management & Operations Committee
Mr. Thomas Kapp, Kissimmee Gateway Airport
Mr. Nabil Muhaisen, Technical Advisory Committee

Members/Advisors not in Attendance:

Staff in Attendance :

Mr. Jay Small, Mateer & Harbert
Mr. Gary Huttman
Mr. Jason Loschiavo
Mr. Keith Caskey
Mr. Nick Lepp
Mr. Eric Hill
Mr. Joe Davenport
Ms. Lisa Smith
Ms. Cathy Goldfarb
Ms. Mary Ann Horne
Ms. Sally Morris
Mr. Alex Trauger
Ms. Virginia Whittington
Mr. Mighk Wilson
Ms. Leilani Vaiaoga
Ms. Lara Bouck
Mr. Mighk Wilson
Ms. Sarah Larsen
Ms. Jasmine Blais

I. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Commissioner Viviana Janer called the meeting to order at 9:00 a.m. and welcomed everyone. Mayor Bryan Nelson led the Pledge of Allegiance.

II. CHAIRMAN'S ANNOUNCEMENTS

Chairwoman Janer reviewed the virtual meeting procedures, including public comments. Chairwoman Janer called attention to the new AV equipment installed in the Board Room. Mr. Jason Loschiavo, MetroPlan Orlando staff, gave the Board members a brief overview of the new equipment. Chairwoman Janer officially welcomed Council Member Keith Trace as the new Municipal Advisory Committee Chair. Commissioner Moore reported on the April 9th Central Florida MPO Alliance (CFMPOA) meeting. Mayor Demings reported on the April 29th Commuter Rail Commission (CRC) meeting. Commissioner Mayra Uribe provided a report on the April 29th Metropolitan Planning Organization Advisory Council (MPOAC) meeting. Commissioners Gomez-Cordero and Uribe reported on their experiences attending the virtual MPOAC Institute in March and April, respectively.

III. EXECUTIVE DIRECTOR'S ANNOUNCEMENTS

Mr. Gary Huttman thanked board members for helping to ensure a quorum for the hybrid meeting. He reviewed the virtual procedures. Mr. Gary Huttman thanked board members for helping to ensure a quorum for the hybrid meeting. He recognized Orange County alternate, Commissioner Nicole Wilson, in attendance for Cmsr Emily Bonilla. Mr. Huttman reported on the applications that have been completed for additional federal funding which included the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA). He reported that staff prepared a list of 8 projects. Mr. Huttman informed Board members that staff prepared a list of 7 projects and letters of support for 9 others under the Federal Community Project Funding Appropriations request, and the Re-authorization of the Federal Transportation Bill. He stated that MetroPlan continues to coordinate with the FDOT on the President's Jobs Plan. He advised that monthly coordination with FDOT continues along with pedestrian safety and Best Foot Forward efforts in Orange and Seminole counties. He announced that the 2021 Regional Transportation Survey opened on May 3rd and will remain open until May 23rd. Mr. Huttman reported on local projects that MetroPlan Orlando staff is working on including the 10th Street Complete Streets Project in St. Cloud, the Sunrail Parking Feasibility Study at the Meadow Woods, Tupperware and Poinciana locations; and the Rock Springs Road/Welch Road/ West Orange Trail Extension in Apopka and Orange County. He reported on the Four Corners Transportation Summit that he attended on May 6. Mr. Huttman announced that Mr. Alex Trauger, MetroPlan Orlando staff, had been appointed to the statewide Freight Advisory Committee. He congratulated the members of the Communications staff for awards won at the Florida Public Relations Association annual event on April 13th. He congratulated Conroy Jacobs, Osceola County staff and MetroPlan Orlando TAC committee member, for receiving the 2020 Planning Professional of the Year award during the FDOT Transplex program. During an update on MetroPlan Orlando office operations, Mr. Huttman noted that the doors to the office remain closed to walk-ins. He announced that effective July 1, the office will resume in-person Board and Committee meetings consistent with the expiration of Board Resolution #20-18.

IV. FDOT REPORT

Mr. Jared Perdue, FDOT District 5 Secretary, stated that District 5 continues to work on and build regional relationships with safety continuing to be a major focus. He told Board members that the approved state budget for FDOT was \$10.26 billion with approximately \$9.4 billion of that going to projects in the work program. The State Legislators also directed \$2 billion of rescue plan funding to FDOT's work program which will offer more opportunities for regional collaboration. He mentioned that I-4 Beyond the Ultimate continues to be a major focus for District 5.

Ms. Loreen Bobo, Director of Transportation Development, announced that District 5 is creating an Office of Safety with the goal being to bring all district-wide safety efforts under one umbrella. She reported on roadway lighting improvements in the 3-county region that are being made to intersections, corridors, and mid-block crossings. She provided an overview of "Operation Stride" (Statewide Traffic Railroad Initiatives using Dynamic Envelopes). She explained that the purpose of Operation Stride was to bring more driver awareness of where not to stop on railroad tracks. Ms. Bobo noted that a total 172 Dynamic Envelopes were installed in District 5 over the past year. Ms. Bobo reported that the I-4 Beyond the Ultimate project has been going through "a value engineering process" to find innovative ways to bring key components of the project to completion earlier. She said that the District hopes to take advantage of funding directed into the work program to accomplish that effort.

V. ROLL CALL AND CONFIRMATION OF QUORUM

Ms. Lisa Smith conducted the roll call and confirmed that a quorum of 11 voting members was physically present.

VI. AGENDA REVIEW

Mr. Huttman stated that there were no changes to the agenda.

VII. COMMITTEE REPORTS

The Chairs from the Municipal Advisory Committee, the Community Advisory Committee, the Technical Advisory Committee and TSMO Committee reported out on their respective February/March meetings.

VIII. PUBLIC COMMENTS ON ACTION ITEMS

None.

IX. CONSENT AGENDA

- A. Approval of Minutes from March 10, 2021 Board meeting
- B. Approval of Financial Report for February & March 2021
- C. Approval of the Annual Investment Report
- D. Approval of Budget Amendment #6

- E. **Approval of the Audit Contract**
- F. **Approval of the Intergovernmental Coordination Agreement (ICAR)**
- G. **Approval of Board Committee Appointments**

MOTION: Commissioner Dallari moved approval of the consent agenda, items A-G.
 Commissioner Uribe seconded the motion, which passed unanimously.

X. OTHER ACTION ITEMS

- A. **FDOT Amendment to FY 2020/21 - 2024/25 TIP**
 Mr. Keith Caskey- MetroPlan Orlando Staff

FDOT TIP Amendment Request:

FM# 423446-1 – Central Florida Commuter Rail System Phase II North

FM# 445415-1 – Neptune Road from Partin Settlement Rd. to US 192

FM# 448901-1 – Hester Ave at RR Crossing #621184M (City of Sanford)

Mr. Keith Caskey, MetroPlan Orlando staff, presented an overview of the TIP amendment request. A letter from FDOT explaining the amendment request was provided along with a fact sheet prepared by MetroPlan Orlando staff and the draft resolution.

MOTION: Mayor Demings moved approval of the FTE Amendment to FY
 2020/21 - 2024/25 TIP. Commissioner Fisher seconded the motion. A roll
 call vote was conducted. Motion carried unanimously with an 18-0 vote.

- B. **Approval of Board Emphasis Areas**
 Mr. Nick Lepp – MetroPlan Orlando Staff

Mr. Nick Lepp, MetroPlan Orlando staff, gave a presentation on the MetroPlan Orlando Board's emphasis areas for 2021. Mr. Lepp reviewed the five emphasis areas and how staff accomplished hitting these targets from 2017-2021. He explained that the 2045 MTP goals were incorporated to see how the emphasis areas match up with the goals. Mr. Lepp reviewed the 2045 MTP performance measures, goals in order of importance, and the shift in goals pre and post pandemic. He provided a survey link for Board members to rank the goal areas from 1 to 5.

Commissioner Dallari said that he feels that safety should be looked at in two different categories. One for vulnerable users (i.e.: pedestrians/cyclists), and one for vehicular. Board members agreed. Mr. Lepp stated that adding the subcategories would not delay the process.

MOTION: Commissioner Dallari moved approval of the 2021 Board Emphasis Areas to include a subcategory for safety for vulnerable users and vehicular. Commissioner Zembower seconded the motion. Motion carried unanimously with a 18-0 vote.

XI. INFORMATION ITEMS FOR ACKNOWLEDGEMENT (Action Item)

- A. Executive Director's Report page**
- B. FDOT Monthly Construction Status Report**
- C. Vital Few Fact Sheet – FTE Connected Vehicle Pilot Project**
- D. MetroPlan Orlando Market Research Flyer**
- E. NARC Major Metros Reauthorization Letter**
- F. Letter of Support – UCF Department of Civil, Environmental & Construction Engineering to U.S. DOE Vehicle Technologies Office**
- G. Letter of Support – UCF to the National Science Foundation Engineering Research Center for Smart Streetscapes**
- H. Letter of Support – Community Project Funding Request for Lynx Contactless Payment System**
- I. Letter of Support – Community Project Funding Request for Osceola County Neovation Way Project**
- J. Letter of Support – Community Project Funding Request for Osceola County Neptune Road Project**
- K. Letter of Support – Community Project Funding Request for Seminole County E.E. Williamson Road Project**
- L. Letter of Support – Community Project Funding Request for Seminole County Wekiva Springs Road Project**
- M. Letter of Support – Community Project Funding Request for Orange County Pine Hills Trail Phase II Project**
- N. Letter of Support – Community Project Funding Request for Orange County Powers Drive at North Lane Project**
- O. Letter of Support – Community Project Funding Request for Orange County Tiny Road at Tilden Road Project**
- P. Letter of Support – Community Project Funding Request for Orange County University Boulevard at Dean Road Project**
- Q. Letter of Support – Federal Transportation Reauthorization Bill Funding Request for Orange County International Drive/SR482 Pedestrian Bridge Project**

- R. Letter of Support – Federal Transportation Reauthorization Bill Funding Request for City of Orlando Corrine Drive Complete Streets Project
- S. Letter of Support – Federal Transportation Reauthorization Bill Funding Request for City of Orlando Barack Obama Parkway Project
- T. Letter of Support – Federal Transportation Reauthorization Bill Funding Request for City of Orlando Econlockhatchee Trail Multimodal Corridor Improvements Project
- U. Letter of Support – Federal Transportation Reauthorization Bill Funding Request for City of Oviedo SR427/CR419 Pine Avenue to Lockwood Boulevard Project
- V. Letter from Owner-Operator Independent Drivers Association to Senate Committee on Finance
- W. Letter from AMPO in support of the National VMT Implementation Program
- X. Letter from Florida Greenways & Trails Foundation to Representative Demings re: Funding for Wildlife & Trail Bridge on SR 528
- Y. Featured Research and Articles:
 - FHWA Award \$18.7 Million to Eight Projects to Explore New Highway Funding Methods
 - The Washington Post: The Washington commute could return by fall for many workers. It won't be the same as before
 - Spotlight on Highway Safety: Governors Highway Safety Association
 - National League of Cities: What Cities need to know as Congress ramps up Community Prioritized Investments

MOTION: Mayor Demings moved approval of the information items for acknowledgement. Commissioner Uribe seconded the motion, which passed unanimously.

XII. OTHER BUSINESS/PRESENTATIONS

A. Presentation on Pedestrian Safety Mr. Mighk Wilson, MetroPlan Orlando Staff

As a follow-up to the latest Dangerous by Design report, Mr. Mighk Wilson, MetroPlan Orlando staff, gave a presentation on pedestrian safety trends in the MetroPlan Orlando region. Mr. Wilson reviewed the Pedestrian Danger Index used to compute how dangerous an area is along with the impact that the Central Florida visitor population has on crashes. He provided information on scenarios for reducing fatalities, FDOT's new safety principle "Safe System", fatality factors and crosswalk law. Mr. Wilson compared examples of local roads with similar

roads in other states where speeds are reduced. He called attention to the deadly trio of factors in crashes, plus an additional factor of type of vehicles, which was noted in the Dangerous by Design report. Mr. Wilson added that an additional mitigation option could be reducing nighttime speed limits. He responded to Board members questions and concerns.

B. Presentation on the 2021 Legislative Session

Mr. Ryan Matthews and Ms. Angela Drzewicki, Peebles, Smith & Matthews

Mr. Matthews and Ms. Drzewicki provided Board members with an update on the 2021 legislative session. Mr. Matthews said that the biggest theme of the legislative session was Covid-19 and pandemic legislation appropriation. They discussed the Best Foot Forward appropriations request which was fully funded at \$100,000; the approved state budget and how it will impact transportation projects, proposed bicycle safety legislation, and they provided a brief run-down of the bills that were sponsored approved/disapproved in respect to their relevance to the MPO. Mr. Matthews noted that a written legislative report was provided to Ms. Whittington for distribution to the members of the Board.

XIII. PUBLIC COMMENTS (GENERAL)

None.

XIV. NEXT MEETING: Wednesday, June 9, 2021

XV. ADJOURN BOARD MEETING

There being no further business, the meeting adjourned at 11:05 a.m. The meeting was transcribed by Ms. Lisa Smith.

Approved this 9th day of June 2021

Commissioner Viviana Janer, Chair

Ms. Lisa Smith,
Board Services Coordinator/ Recording Secretary

As required by Section 286.0105, Florida Statutes, MetroPlan Orlando hereby notifies all interested parties that if a person decides to appeal any decision made by MetroPlan Orlando with respect to any matter considered at such meeting or hearing, he or she may need to ensure that a verbatim record is made to include the testimony and evidence upon which the appeal is to be based.

**METROPLAN ORLANDO
AGENCYWIDE
BALANCE SHEET
For Period Ending 04/30/21**

ASSETS

Operating Cash in Bank	\$	2,345,612.68
Petty Cash	\$	125.00
SBA Investment Account	\$	1,121,654.70
FL CLASS Investment Account	\$	1,176,546.59
Rent Deposit	\$	20,000.00
Prepaid Expenses	\$	30,611.33
Accounts Receivable - Grants	\$	423,569.55
Fixed Assets-Equipment	\$	603,475.02
Accumulated Depreciation	\$	(437,848.71)

TOTAL ASSETS:	\$	5,283,746.16
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LIABILITIES

Accrued Personal Leave	\$	390,590.67
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TOTAL LIABILITIES:	\$	390,590.67
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EQUITY

FUND BALANCE:

Nonspendable:

Prepaid Items	\$	30,611.33
Deposits	\$	20,000.00
Unassigned:	\$	4,842,544.16

TOTAL EQUITY:	\$	4,893,155.49
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TOTAL LIABILITIES & EQUITY:	\$	5,283,746.16
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Net difference to be reconciled:	\$	-
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METROPLAN ORLANDO
AGENCYWIDE REVENUES & EXPENDITURES
For Period Ending 04/30/21

REVENUES	Current	Y-T-D	Budget	Variance Un/(Ovr)	% OF BUDGET
Federal Revenue	\$ 421,758.79	4,222,244.31	\$ 7,794,171.00	3,571,926.69	54.17%
State Revenue	\$ 1,810.76	139,399.01	\$ 198,249.00	58,849.99	70.32%
Local Revenue	\$ 300,536.50	1,239,185.00	\$ 1,239,185.00	-	100.00%
Interest Income	\$ 209.76	4,385.05	\$ 60,000.00	55,614.95	7.31%
Other	\$ 0.17	2,325.47	\$ 12,500.00	10,174.53	18.60%
Contributions	\$ 0.00	25,000.00	\$ 25,000.00	-	100.00%
Cash Carryforward	\$ 0.00	0.00	\$ 383,129.00	383,129.00	0.00%
Local Match - Transfers In	\$ 1,810.76	81,095.99	\$ 95,963.00	14,867.01	84.51%
TOTAL REVENUES:	\$ 726,126.74	\$ 5,713,634.83	\$ 9,808,197.00	\$ 4,094,562.17	58.25%
EXPENDITURES					
Salaries	\$ 210,341.49	1,412,287.78	\$ 1,850,760.00	438,472.22	76.31%
Fringe Benefits	\$ 72,210.19	484,838.38	\$ 612,207.00	127,368.62	79.20%
Local Match - Transfers Out	\$ 1,810.76	81,095.99	\$ 95,963.00	14,867.01	84.51%
Audit Fees	\$ 0.00	27,500.00	\$ 41,500.00	14,000.00	66.27%
Computer Operations	\$ 8,150.95	63,934.49	\$ 99,636.00	35,701.51	64.17%
Dues & Memberships	\$ 313.71	12,632.34	\$ 20,579.00	7,946.66	61.38%
Equipment & Furniture	\$ 23,946.66	200,345.65	\$ 242,000.00	41,654.35	82.79%
Graphic Printing/Binding	\$ 0.00	308.04	\$ 25,920.00	25,611.96	1.19%
Insurance	\$ 1,640.09	24,547.12	\$ 29,023.00	4,475.88	84.58%
Legal Fees	\$ 1,576.03	14,402.03	\$ 50,000.00	35,597.97	28.80%
Office Supplies	\$ 1,483.06	7,638.96	\$ 37,500.00	29,861.04	20.37%
Postage	\$ 196.26	2,498.43	\$ 3,300.00	801.57	75.71%
Books, Subscrips/Pubs	\$ 75.41	6,536.22	\$ 8,716.00	2,179.78	74.99%
Exec. Dir 457 Def. Comp.	\$ 1,961.55	14,000.05	\$ 18,000.00	3,999.95	77.78%
Rent	\$ 28,308.30	243,258.78	\$ 250,665.00	7,406.22	97.05%
Equipment Rent/Maint.	\$ 785.00	7,144.67	\$ 18,779.00	11,634.33	38.05%
Seminar & Conf. Regist.	\$ 599.38	4,754.44	\$ 41,640.00	36,885.56	11.42%
Telephone	\$ 523.48	4,387.57	\$ 9,250.00	4,862.43	47.43%
Travel	\$ 484.10	3,667.60	\$ 47,289.00	43,621.40	7.76%
Small Tools/Office Mach.	\$ 59.98	3,071.21	\$ 1,200.00	(1,871.21)	255.93%
HSA/FSA Annual Contrib.	\$ 0.00	10,500.00	\$ 12,500.00	2,000.00	84.00%
Computer Software	\$ 0.00	0.00	\$ 5,000.00	5,000.00	0.00%
Contingency	\$ 0.00	0.00	\$ 15,831.00	15,831.00	0.00%
Contractual/Temp Svcs.	\$ 232.00	2,320.00	\$ 3,530.00	1,210.00	65.72%
Interest Expense	\$ 0.00	0.00	\$ 72,283.00	72,283.00	0.00%
Pass-Thru Expenses	\$ 214,894.44	295,323.77	\$ 1,274,531.00	979,207.23	23.17%
Consultants	\$ 0.00	2,408,820.94	\$ 4,777,000.00	2,368,179.06	50.43%
Repair & Maintenance	\$ 1,270.32	338.95	\$ 1,800.00	1,461.05	18.83%
Advertising/Public Notice	\$ 266.81	7,506.78	\$ 11,855.00	4,348.22	63.32%
Other Misc. Expense	\$ 0.00	2,744.89	\$ 14,690.00	11,945.11	18.69%
Contributions	\$ 0.00	100,737.23	\$ 100,950.00	212.77	99.79%
Educational Reimb.	\$ 0.00	320.00	\$ 1,800.00	1,480.00	17.78%
Comm. Rels. Sponsors	\$ 0.00	5,000.00	\$ 12,500.00	7,500.00	40.00%
Indirect Expense Carryfwd.	\$ 0.00	0.00	\$ 0.00	-	0.00%
TOTAL EXPENDITURES:	\$ 571,129.97	\$ 5,452,462.31	\$ 9,808,197.00	\$ 4,355,734.69	55.59%
AGENCY BALANCE:	\$ 154,996.77	\$ 261,172.52			



Board Action Fact Sheet

Meeting Date: June 9, 2021

Agenda Item: IX.C. (Tab 1)

Roll Call Vote: No

Action Requested: Approval of FY'22 Budget Amendment #1

Reason: To update the 2nd year of the two-year UPWP to bring forward ongoing consultant projects, pass-through expense commitments, and grant revenue; to update local revenue with current population estimates; and to update expenditures with current information.

Summary/Key Information: The UPWP must be created as a two year budget. The second year of the two-year UPWP was created with many revenue and expenditure estimates that must be updated before the new year. This is also an opportunity to bring forward projects that are underway and will be continued into the new year.

MetroPlan Budget Impact: Increase of FY'22 revenue and expenditures by \$1,086,032. The increase of revenue is mostly carryforward from prior year projects and planned PL and SU funds that were originally held by FDOT at the creation of the UPWP.

Local Funding Impact: Decrease of \$76,366 (mostly from estimated Interest Income)

Committee Action:

CAC:	N/A
TSMO:	N/A
TAC:	N/A
MAC:	N/A

Staff Recommendation: Recommends approval

Supporting Information: The revised budget amendment document and comparison agencywide budget are available under tab 1.

FINANCE USE ONLY:

Approved Bd Mtg:
Agenda Item #:

Entered:

B E No. :
FDOT No. :

FY 2022

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REQUEST FOR UPWP BUDGET AMENDMENT

DATE: 5/20/2021

(WHOLE DOLLARS ONLY)

<u>PROJECT</u>	<u>ELEMENT</u>	<u>CODE</u>	<u>DESCRIPTION</u>	<u>AMOUNT</u>	
				<u>REVENUES</u>	<u>EXPENDITURES</u>
38022	--	40000	Federal Revenue	107,187	
38022	822100	50000	Salaries		4,364
38022	822100	50500	Fringe Benefits		736
38022	822100	59700	Indirect Costs		396
38022	822110	50000	Salaries		(255)
38022	822110	50500	Fringe Benefits		(496)
38022	822110	59700	Indirect Costs		(411)
38022	822110	60400	Audit Fees		(3,000)
38022	822120	50000	Salaries		2,671
38022	822120	50500	Fringe Benefits		588
38022	822120	59700	Indirect Costs		362
38022	822120	63000	Consultants		(25,000)
38022	822130	50000	Salaries		23,375
38022	822130	50500	Fringe Benefits		7,517
38022	822130	59700	Indirect Costs		5,194
38022	822200	50000	Salaries		16,267
38022	822200	50500	Fringe Benefits		5,064
38022	822200	59700	Indirect Costs		3,471
38022	822210	50000	Salaries		(1,185)
38022	822210	50500	Fringe Benefits		(529)
38022	822210	59700	Indirect Costs		(390)
38022	822220	50500	Fringe Benefits		(762)
38022	822220	59700	Indirect Costs		(651)
38022	822300	50000	Salaries		7,899
38022	822300	50500	Fringe Benefits		2,310
38022	822300	59700	Indirect Costs		1,558
38022	822300	63000	Consultants		40,500
38022	822310	50000	Salaries		(3,973)
38022	822310	50500	Fringe Benefits		(2,210)
38022	822310	59700	Indirect Costs		(1,679)
38022	822320	50000	Salaries		8,471
38022	822320	50500	Fringe Benefits		2,748
38022	822320	59700	Indirect Costs		1,902
38022	822320	63000	Consultants		71,474
38022	822330	50000	Salaries		(4,939)
38022	822330	50500	Fringe Benefits		(1,933)
38022	822330	59700	Indirect Costs		(1,392)

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38022	822330	63000	Consultants		(110,000)
38022	822340	50000	Salaries		25,030
38022	822340	50500	Fringe Benefits		8,039
38022	822340	59700	Indirect Costs		5,553
38022	822340	63000	Consultants		20,503
34322	--	40000	Federal Revenue	498,430	
34322	322300	63000	Consultants		509,859
34322	322310	50000	Salaries		(9,251)
34322	322310	50500	Fringe Benefits		(3,154)
34322	322310	59700	Indirect Costs		(2,209)
34322	322330	50000	Salaries		(46,167)
34322	322330	50500	Fringe Benefits		(16,246)
34322	322330	59700	Indirect Costs		(11,454)
34322	322330	63000	Consultants		281,482
34322	322340	63000	Consultants		(204,430)
34022	--	41000	State Revenue	3,816	
34022	422310	50000	Salaries		111
34022	422310	50500	Fringe Benefits		(57)
34022	422310	59700	Indirect Costs		(54)
34022	422310	60800	Graphic Printing/Binding		1,000
34022	422310	61200	Postage		1,000
34022	422310	61500	Rent		1,001
34022	422310	63400	Advertising/Public Notice		815
36022	--	40000	Federal Revenue	0	
36022	--	41000	State Revenue	(112,669)	
36022	--	49800	Local Match Transfer In	(112,669)	
36022	622100	50000	Salaries		10,490
36022	622100	50500	Fringe Benefits		2,173
36022	622100	59700	Indirect Costs		1,291
36022	622110	50000	Salaries		(265)
36022	622110	50500	Fringe Benefits		(377)
36022	622110	59700	Indirect Costs		(308)
36022	622110	60400	Audit Fees		(2,500)
36022	622120	50000	Salaries		44,529
36022	622120	50500	Fringe Benefits		14,894
36022	622120	59700	Indirect Costs		10,385
36022	622130	50000	Salaries		13,873
36022	622130	50500	Fringe Benefits		4,640
36022	622130	59700	Indirect Costs		3,235
36022	622220	50000	Salaries		101,211
36022	622220	50500	Fringe Benefits		33,852
36022	622220	59700	Indirect Costs		23,604
36022	622310	50000	Salaries		21,647
36022	622310	50500	Fringe Benefits		7,240
36022	622310	59700	Indirect Costs		5,048

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36022	622350	62900	Pass-Through Expenses		(520,000)
36021	--	40000	Federal Revenue	171,000	
36021	--	41000	State Revenue	(50,000)	
36021	--	49800	Local Match Transfer In	(50,000)	
36021	621100	50000	Salaries		(12,649)
36021	621100	50500	Fringe Benefits		(4,313)
36021	621100	59700	Indirect Costs		(3,015)
36021	621110	60400	Audit Fees		(3,000)
36021	621120	50000	Salaries		(47,922)
36021	621120	50500	Fringe Benefits		(16,340)
36021	621120	59700	Indirect Costs		(11,442)
36021	621130	50000	Salaries		(54,292)
36021	621130	50500	Fringe Benefits		(18,511)
36021	621130	59700	Indirect Costs		(12,963)
36021	621220	50000	Salaries		(99,195)
36021	621220	50500	Fringe Benefits		(33,822)
36021	621220	59700	Indirect Costs		(23,684)
36021	621310	50000	Salaries		(23,961)
36021	621310	50500	Fringe Benefits		(8,170)
36021	621310	59700	Indirect Costs		(5,721)
36021	621350	62900	Pass-Through Expenses		450,000
37022	--	42900	Orange Co. Assessment	10,405	
37022	--	43000	Osceola Co. Assessment	7,830	
37022	--	43100	Seminole Co. Assessment	1,729	
37022	--	43200	Altamonte Springs Assessment	5	
37022	--	43300	Kissimmee Assessment	422	
37022	--	43400	Orlando Assessment	3,713	
37022	--	43500	Sanford Assessment	761	
37022	--	44300	Apopka Assessment	614	
37022	--	44100	Belle Isle	(11)	
37022	--	44110	Eatonville	(3)	
37022	--	44120	Edgewood	1	
37022	--	44130	Maitland	(34)	
37022	--	44140	Oakland	25	
37022	--	44150	Ocoee	72	
37022	--	44160	Windermere	(1)	
37022	--	44170	Winter Garden	7	
37022	--	44180	Winter Park	(22)	
37022	--	44190	St. Cloud	130	
37022	--	44200	Casselberry	(28)	
37022	--	44210	Lake Mary	(16)	
37022	--	44220	Longwood	(11)	
37022	--	44230	Oviedo	(57)	
37022	--	44240	Winter Springs	(52)	
37022	--	45000	Interest Income	(55,000)	

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37022	--	49700	Cash Carryforward	(46,845)	
37022	722100	50000	Salaries		7,983
37022	722100	50500	Fringe Benefits		873
37022	722100	59700	Indirect Costs		340
37022	722100	59800	Local Match Transfer Out	(162,669)	
37022	722100	60600	Dues and Memberships		288
37022	722100	60700	Equipment		8,000
37022	722100	61100	Office Supplies		1
37022	722100	61400	Deferred Comp 457 Exec. Director		2,000
37022	722100	62000	Small Tools/Office Machinery		1,800
37022	722100	62200	Computer Software		12,500
37022	722100	62500	Contingency		16,101
37022	722110	50000	Salaries		3,944
37022	722110	50500	Fringe Benefits		1,202
37022	722110	59700	Indirect Costs		820
37022	722120	50000	Salaries		3,846
37022	722120	50500	Fringe Benefits		1,202
37022	722120	59700	Indirect Costs		824
37022	722130	50000	Salaries		8,708
37022	722130	50500	Fringe Benefits		2,888
37022	722130	59700	Indirect Costs		2,010
37022	722200	50000	Salaries	(781)	
37022	722200	50500	Fringe Benefits	(309)	
37022	722200	59700	Indirect Costs	(223)	
37022	722210	50000	Salaries		8,627
37022	722210	50500	Fringe Benefits		2,400
37022	722210	59700	Indirect Costs		1,597
37022	722220	50500	Fringe Benefits	(5)	
37022	722220	59700	Indirect Costs	(5)	
37022	722220	63000	Consultants	(55,000)	
37022	722300	50000	Salaries		3,855
37022	722300	50500	Fringe Benefits		1,264
37022	722300	59700	Indirect Costs		878
37022	722310	50000	Salaries		3,193
37022	722310	50500	Fringe Benefits		1,016
37022	722310	59700	Indirect Costs		700
37022	722320	50000	Salaries		110
37022	722320	50500	Fringe Benefits	(104)	
37022	722320	59700	Indirect Costs	(94)	
37022	722330	50000	Salaries		18,703
37022	722330	50500	Fringe Benefits		6,254
37022	722330	59700	Indirect Costs		4,360
37022	722340	50000	Salaries		9,645
37022	722340	50500	Fringe Benefits		2,911
37022	722340	59700	Indirect Costs		1,981

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998000	--	50600	Fringe FICA - Employer	5,355
998000	--	51300	Fringe Pension Fund	7,464
999000	--	60500	Computer Operations	3,980
999000	--	61500	Rent - Indirect	64,201
999000	--	61600	Equipment Rent/Lease & Maintenance Agreements	1,679
999000	--	62700	Interest Expense	(62,832)
34421	--	40000	Federal Revenue	179,483
34421	341330	50000	Salaries	7,010
34421	341330	50500	Fringe Benefits	2,345
34421	341330	59700	Indirect Costs	1,635
34421	341330	61900	Travel Expenses	3,292
34421	341330	63000	Consultants	165,201
34521	--	40000	Federal Revenue	37,500
34521	351330	50000	Salaries	23,920
34521	351330	50500	Fringe Benefits	8,001
34521	351330	59700	Indirect Costs	5,579
34321	--	40000	Federal Revenue	490,320
34321	321330	63000	Consultants	(200,000)
34321	321340	63000	Consultants	690,320

TOTAL: \$ 1,086,032.00 1,105,879.00

REASON(S):

To update year 2 (FY'22) of the FY'21/FY'22 UPWP. This amendment increases the PL, SU, TD, and local budgets to actual amounts and updates expenditures.

Finance Director's Signature:

Jason S. Loschiavo

Date:

Executive Director's Signature:

Gary D. Huttman

Date:

REMARKS:

Revised 10/24/16

METROPLAN ORLANDO
AGENCYWIDE REVENUE AND EXPENDITURE LINE ITEM BUDGET
FY 2021/2022

REVENUES		Original	BE1	Change
ACCOUNT	DESCRIPTION	FY 2022	FY 2022	
40000	FEDERAL REVENUES			
	FHWA PL Planning Funds	\$ 1,720,990	\$ 1,828,177	\$ 107,187
	NEW FTA Sec 5305d Planning Funds X016	\$ 904,356	\$ 904,356	\$ -
	Carryfwd from FTA X015	\$ 400,000	\$ 571,000	\$ 171,000
	Carryfwd from FTA X014	\$ -	\$ -	\$ -
	SU (NEW) TSR & TSMO Position	\$ 1,700,000	\$ 2,198,430	\$ 498,430
	SU Carryfwd from FY'21	\$ 200,000	\$ 690,320	\$ 490,320
	TOTAL FEDERAL REVENUES	\$ 4,925,346	\$ 6,409,266	\$ 1,483,920
41000	STATE REVENUES			
	NEW FTA Sec 5305d Planning Funds X016	\$ 112,669	\$ -	\$ (112,669)
	Carryfwd from FTA X015	\$ 50,000	\$ -	\$ (50,000)
	Carryfwd from FTA X014	\$ -	\$ -	\$ -
	Transportation Disadvantaged Planning Funds NEW	\$ 102,286	\$ 106,102	\$ 3,816
	TOTAL STATE REVENUES	\$ 264,955	\$ 106,102	\$ (158,853)
	LOCAL REVENUES			
42900	Orange Co. Assessment	\$ 520,938	\$ 531,343	\$ 10,405
43000	Osceola Co. Assessment	\$ 147,876	\$ 155,706	\$ 7,830
43100	Seminole Co. Assessment	\$ 183,087	\$ 184,816	\$ 1,729
43200	Altamonte Springs Assessment	\$ 22,647	\$ 22,652	\$ 5
43300	Kissimmee Assessment	\$ 37,400	\$ 37,822	\$ 422
43400	Orlando Assessment	\$ 145,900	\$ 149,613	\$ 3,713
43500	Sanford Assessment	\$ 30,135	\$ 30,896	\$ 761
44300	Apopka Assessment	\$ 26,202	\$ 26,816	\$ 614
43700	CFX	\$ 25,000	\$ 25,000	\$ -
43800	Sanford Airport Authority	\$ 25,000	\$ 25,000	\$ -
43900	GOAA	\$ 25,000	\$ 25,000	\$ -
44000	LYNX	\$ 25,000	\$ 25,000	\$ -
44100	Belle Isle	\$ 519	\$ 508	\$ (11)
44110	Eatonville	\$ 165	\$ 162	\$ (3)
44120	Edgewood	\$ 191	\$ 192	\$ 1
44130	Maitland	\$ 1,487	\$ 1,453	\$ (34)
44140	Oakland	\$ 237	\$ 262	\$ 25
44150	Ocoee	\$ 3,354	\$ 3,426	\$ 72
44160	Windermere	\$ 209	\$ 208	\$ (1)
44170	Winter Garden	\$ 3,330	\$ 3,337	\$ 7
44180	Winter Park	\$ 2,131	\$ 2,109	\$ (22)
44190	St. Cloud	\$ 3,374	\$ 3,504	\$ 130
44200	Casselberry	\$ 2,117	\$ 2,089	\$ (28)
44210	Lake Mary	\$ 1,230	\$ 1,214	\$ (16)
44220	Longwood	\$ 1,115	\$ 1,104	\$ (11)
44230	Oviedo	\$ 2,821	\$ 2,764	\$ (57)
44240	Winter Springs	\$ 2,720	\$ 2,668	\$ (52)
	TOTAL LOCAL ASSESSMENTS	\$ 1,239,185	\$ 1,264,664	\$ 25,479
	OTHER REVENUES			
45000	Interest Income	60000	5000	-55000
47000	Reimbursement of Claims & Expenses	12500	12500	0
48900	Other Grant/Contribution Income (MPO Alliance)	25000	25000	0
49700	Cash Carryforward	304930	258085	-46845
	TOTAL LOCAL REVENUES (ASSESSMENTS + OTHER)	\$ 1,641,615	\$ 1,565,249	\$ (76,366)

METROPLAN ORLANDO
AGENCYWIDE REVENUE AND EXPENDITURE LINE ITEM BUDGET
FY 2021/2022

49800	Local Match Transfer Out for New FTA X016	\$	112,669	\$	-	\$	(112,669)
49800	Local Match Transfer Out for Rollover FTA X015	\$	50,000	\$	-	\$	(50,000)
49800	Local Match Transfer Out for Rollover FTA X014	\$	-	\$	-	\$	-
TOTAL LOCAL MATCH		\$	162,669	\$	-	\$	(162,669)
TOTAL REVENUES:		\$	6,994,585	\$	8,080,617	\$	1,086,032

EXPENDITURES

ACCOUNT

CODE	DESCRIPTION						
50000	Salaries, Leave & Car Allow.	\$	1,907,595	\$	1,982,242	\$	74,647
50600	Fringe - FICA Employer	\$	131,367	\$	136,722	\$	5,355
50700	Fringe - Unemployment Ins	\$	10,000	\$	10,000	\$	-
50800	Fringe - Health Insurance Emplr.	\$	292,520	\$	292,520	\$	-
50900	Fringe - Dental Insurance Emplr.	\$	5,927	\$	5,927	\$	-
51000	Fringe - Life Insurance Emplr.	\$	1,321	\$	1,321	\$	-
51100	Fringe - Long-Term Disability	\$	2,401	\$	2,401	\$	-
51200	Fringe - Workers Comp Ins.	\$	4,200	\$	4,200	\$	-
51300	Fringe Pension Fund ICMA 401	\$	189,260	\$	196,724	\$	7,464
51500	Fringe - VisionCare Insurance	\$	1,486	\$	1,486	\$	-
51600	Fringe - Short-Term Disability	\$	-	\$	-	\$	-
51700	Fringe - Grant Carry Forward	\$	-	\$	-	\$	-
59800	Local Match Transfer Out	\$	162,669	\$	-	\$	(162,669)
60400	Audit Fees	\$	42,000	\$	33,500	\$	(8,500)
60500	I-Computer Operations	\$	91,436	\$	95,416	\$	3,980
60600	Dues and Memberships	\$	20,579	\$	20,867	\$	288
60700	Equipment	\$	42,000	\$	50,000	\$	8,000
60800	Graphic Printing & Binding	\$	25,920	\$	26,920	\$	1,000
60900	Insurance	\$	29,023	\$	29,023	\$	-
61000	Legal Fees	\$	50,000	\$	50,000	\$	-
61100	Office Supplies	\$	37,499	\$	37,500	\$	1
61200	Postage	\$	3,300	\$	4,300	\$	1,000
61300	Books, Subscrips & Pubs	\$	8,716	\$	8,716	\$	-
61400	Deferred Comp 457 Ex Dir	\$	20,000	\$	22,000	\$	2,000
61500	I- Rent	\$	260,182	\$	324,883	\$	64,701
61600	I-Equipment Rent & Maintenance	\$	17,694	\$	19,874	\$	2,180
61700	Seminars & Conf. Registration	\$	41,640	\$	41,640	\$	-
61800	I - Telephone	\$	9,250	\$	9,250	\$	-
61900	Travel Expenses	\$	97,500	\$	100,792	\$	3,292
62000	Small Tools/Office Machinery	\$	1,200	\$	3,000	\$	1,800
62100	HSA Employer Contribution	\$	12,500	\$	12,500	\$	-
62200	Computer Software	\$	2,500	\$	15,000	\$	12,500
62500	Contingency	\$	33,899	\$	50,000	\$	16,101
62600	Contractual/Temporary Services	\$	3,530	\$	3,530	\$	-
62700	Interest Expense	\$	62,832	\$	-	\$	(62,832)
62900	Pass-Through Expenses	\$	900,000	\$	830,000	\$	(70,000)
63000	Consultants	\$	2,332,044	\$	3,516,953	\$	1,184,909
63100	Repair & Maintenance	\$	1,800	\$	1,800	\$	-
63400	Advertising/Public Notice	\$	10,855	\$	11,670	\$	815
64100	Other Miscellaneous Expense	\$	6,690	\$	6,690	\$	-
64300	Awards & Promotional Expense	\$	8,000	\$	8,000	\$	-
64400	Contributions	\$	100,950	\$	100,950	\$	-
64500	Educational Reimbursement	\$	1,800	\$	1,800	\$	-
64600	Comm. Relations Sponsorships	\$	10,500	\$	10,500	\$	-
64700	Grant Carry Forward - Indirect	\$	-	\$	-	\$	-
TOTAL EXPENDITURES:		\$	6,994,585	\$	8,080,617	\$	1,086,032



Board Action Fact Sheet

Meeting Date: June 9, 2021

Agenda Item: IX.D. (Tab 1)

Roll Call Vote: No

Action Requested: Approval for the Board Chair to approve FY'21 Budget Amendment #7 with Board ratification of the amendment at the September 8, 2021 meeting.

Reason: To prevent issues with year-end grant billing and budget

Summary/Key Information: The MetroPlan Orlando fiscal year ends on June 30 and closes by August 15 including year-end grant billings. To prevent issues with year-end grant billings including over-spent UPWP tasks, staff annually requests that the board allow the Chair to approve a budget amendment after the year end. This amendment will be brought back to the full board for ratification at the September 8, 2021 meeting.

MetroPlan Budget Impact: Individual line items and UPWP tasks will be amended for items that are over budget. The total agency wide budget and individual grant/project total budgets will not be affected.

Local Funding Impact: None

Committee Action:

CAC:	N/A
TSMO:	N/A
TAC:	N/A
MAC:	N/A

Staff Recommendation: Recommends approval

Supporting Information: None



Board Action Fact Sheet

Meeting Date: June 9, 2021

Agenda Item: IX.E (Tab 1)

Roll Call Vote: No

Action Requested: Approval of Recommended Appointment of Ms. Cheryl Stone to the CAC

Reason: Board approval is needed for appointment to fill Transportation Disadvantaged Advocate's seat on the Community Advisory Committee.

Summary/Key Information: MetroPlan Orlando's CAC Bylaws outline a process for selecting members, to be approved by the MetroPlan Orlando Board, who will serve alongside members selected by geographic partners.

A Selection Committee was convened on Feb. 8, as described in the bylaws, and came to consensus on a slate of 8 names from a pool of 25 qualified applicants from throughout the region. Among those were 2 people chosen to serve as Transportation Disadvantaged Advocates on the CAC. The committee also selected another applicant, Ms. Cheryl Stone, as an alternate in case either of those two could not serve. One of the people chosen to serve initially accepted the seat, but since has informed MetroPlan Orlando that she cannot serve on the committee, creating a vacancy.

MetroPlan Budget Impact: None.

Local Funding Impact: None.

Committee Action: CAC: Information will be shared, pending board approval
TSMO: N/A
TAC: N/A
MAC: N/A

Staff Recommendation: Recommend approval of new member to fill vacancy.

Supporting Information: N/A

TAB 2





Board Action Fact Sheet

Meeting Date: June 9, 2021

Agenda Item: X.A (Tab 2)

Roll Call Vote: Yes

Action Requested:	FDOT requests approval of an amendment to the FY 2020/21 - 2024/25 Transportation Improvement Program.
Reason:	Two new projects are being added to the TIP with funding programmed in FY 2020/21.
Summary/Key Information:	<p>Items of particular significance for our Committees and the Board are as follows:</p> <ul style="list-style-type: none"> • This amendment provides a total of \$8.3 million in federal and state funds for the resurfacing of SR 46 from east of Upsala Road to French Avenue in Sanford. • In addition to resurfacing, this project will include safety improvements, filling in sidewalk gaps and adding bike lanes. • The amendment also moves \$2.1 million in federal SU funds for the construction phase of the Sunset Drive Livable Streets project in Casselberry currently programmed in the TIP under project #4390751 to a new project #4390752. • The design phase for the Sunset Drive project will remain under project #4390751.
MetroPlan Budget Impact:	None
Local Funding Impact:	None
Committee Action:	<p>TSMO: To be reviewed on May 21, 2021</p> <p>TAC: To be reviewed on May 21, 2021</p> <p>CAC: To be reviewed on May 26, 2021</p> <p>MAC: To be reviewed on June 3, 2021</p>
Staff Recommendation:	Recommends approval
Supporting Information:	<p>These documents are provided at Tab 2:</p> <p>FDOT letter dated May 1, 2021</p> <p>Proposed Board Resolution No. 21-06</p>



Florida Department of Transportation

RON DESANTIS
GOVERNOR

719 S. Woodland Boulevard
DeLand, Florida 32720-6834

KEVIN J. THIBAUT, P.E.
SECRETARY

May 1, 2021

Mr. Gary Huttman
Executive Director
MetroPlan Orlando
250 South Orange Ave., Suite 200
Orlando, FL 32801

Dear Mr. Huttman:

Subject: REQUEST FOR TRANSPORTATION IMPROVEMENT PROGRAM CHANGES

The Florida Department of Transportation (FDOT) requests the following changes to be made to MetroPlan Orlando Metropolitan Planning Organization's Adopted Fiscal Years 2020/2021 – 2024/2025 Transportation Improvement Program (TIP) in coordination with the corresponding changes to the Department's Adopted Work Program. Please make sure that you put the amendment date on your cover page of the amended TIP and the page of the TIP that the project is listed on.

SEMINOLE COUNTY

FM#447103-1 SR 46 FROM EAST OF CR-15/UPSALA RD TO FRENCH AVE

Current TIP Status:

Project is not currently in the TIP for Fiscal Years 2020/2021 – 2024/2025.

Proposed Amendment:

Phase	Amended Funding Type	Amended Amount	Fiscal Year
Preliminary Engineering	DIH	\$5,000	2021
Preliminary Engineering	DIH	\$10,000	2022
Preliminary Engineering	ACSA	\$1,007,000	2022
Construction	DDR	\$7,244,776	2024
Construction	DIH	\$10,000	2024
	TOTAL	\$8,276,776	

Difference: TIP must be updated to reflect new project and added funding.

Explanation: This project is in the City of Sanford and includes the resurfacing of SR 46 from East of I-4 to SR 15 (US 17/92). Project will also provide safety improvements and increase pedestrian, cyclist mobility by filling in sidewalk gaps and the addition of bike lanes.

**FM#439075-2 SUNSET DRIVE LIVABLE STREETS/FROM OXFORD ROAD TO
BUTTON ROAD CONSTRUCT**

Current TIP Status:

Project is not currently in the TIP for Fiscal Years 2020/2021 – 2024/2025.

Proposed Amendment:

Phase	Amended Funding Type	Amended Amount	Fiscal Year
Construction	SU	\$2,096,484	2022
	TOTAL	\$2,096,484	

Difference: New project with Phase 58 (Construction) funds added in FY 2021/2022. TIP must be updated to reflect new project and added funding.

Explanation: This is a local agency project with the City of Casselberry and will provide funding the construction phase. The purpose of this project is to enhance Sunset Drive to provide a 10-foot shared use path for bicyclists and pedestrians. The \$2,096,484 in construction funds originate from project 439075-1 and were recently added to 439075-2.

Sincerely,

Anna M. Taylor

Anna Taylor, Government Liaison Administrator
District Five

cc: Kellie Smith, Planning & Environmental Management Administrator, FDOT
Rakinya Hinson, MPO Liaison, FDOT
Jo Santiago, Transit Liaison, FDOT

Resolution No. 21-06

Subject:

**Amendment to the FY 2020/21 - 2024/25
Transportation Improvement Program**

WHEREAS, the Orlando Urbanized Area Metropolitan Planning Organization (MPO), d.b.a. MetroPlan Orlando, is the duly designated and constituted body responsible for carrying out the urban transportation planning and programming process for the Orlando Urbanized Area, including the Transportation Improvement Program; and

WHEREAS, the Florida Department of Transportation (FDOT) is requesting to amend the FY 2020/21 - 2024/25 Transportation Improvement Program (TIP) in accordance with the MetroPlan Orlando Internal Operating Procedures; and

WHEREAS, the requested amendments are described as follows:

Seminole County

- **FM #4390752 – Sunset Drive Livable Streets from Oxford Road to Button Road - Funding consists of \$2,096,484 in SU funds for construction in FY 2021/22 currently programmed under FM #4390751 being moved to FM #4390752;**
- **FM #4471031 – SR 46 from east of Upsala Road to French Avenue – Resurfacing - Funding consists of:**
 - \$5,000 in DIH funds for design in FY 2020/21
 - \$10,000 in DIH funds for design in FY 2021/22
 - \$1,007,000 in ACSA funds for design in FY 2021/22
 - \$7,244,776 in DDR funds for construction in FY 2023/24
 - \$10,000 in DIH funds for construction in FY 2023/24; and

WHEREAS, the requested amendments described above are consistent with MetroPlan Orlando's project priorities and currently adopted Long Range Transportation Plan.

NOW, THEREFORE, BE IT RESOLVED by the MetroPlan Orlando Board that the Florida Department of Transportation's amendments to the FY 2020/21 - 2024/25 Transportation Improvement Program be approved as requested.

Passed and duly adopted at a regular meeting of the MetroPlan Orlando Board on the 9th day of June, 2021.

Certificate

The undersigned duly qualified as Chairman of the MetroPlan Orlando Board certifies that the foregoing is a true and correct copy of a Resolution adopted at a legally convened meeting of the MetroPlan Orlando Board.

Honorable Viviana Janer, Chairwoman

Attest:

Lisa Smith, Sr. Board Services Coordinator
and Recording Secretary

TAB 3





Board Action Fact Sheet

Meeting Date: June 9, 2021

Agenda Item: X.B (Tab 3)

Roll Call Vote: Yes

Action Requested:

MetroPlan Orlando Staff requests approval of amendments to the 2045 Metropolitan Transportation Plan (MTP) to include projects identified and fully funded in the Transportation Improvement Program (TIP) and other modifications identified by local agencies.

Reason:

To proactively comply with state and federal long range planning requirements, MetroPlan Orlando staff is proposing this amendment to better reflect the TIP in the 2045 MTP's Cost Feasible Plan. In addition, due to the effort required in updating the budget tables for TIP projects, MetroPlan Orlando staff is taking this amendment opportunity to address feedback received from agency partners following the adoption of the 2045 MTP in December 2020.

Summary/Key Information:

Requested amendments / modifications will be made to the *Cost Feasible Plan: Strategies, Programs, and Projects* and *Congestion Management Process (CMP)* documentation of the adopted 2045 Metropolitan Transportation Plan. Items of particular significance for our Committees and the Board are as follows:

- Tables 6, 9, 11, 12, and 13 updated to included fully funded TIP projects. No impact to existing cost feasibility.
- Off-State Highway System Program expanded to incorporate additional multimodal needs and project types.
- Other miscellaneous editorial changes based on local government feedback.
- CMP Table 1 revised to include updated data from FDOT pertaining to Emergency Response and Roadway Clearance times.

MetroPlan Budget Impact:

None

Local Funding Impact:

None

Committee Action:

CAC: to be determined
TSMO: to be determined
TAC: to be determined
MAC: to be determined

Staff Recommendation:

Recommends Approval.

Supporting Information:

The following documents are provided at Board Agenda Tab 3:

- 1) Overview of Proposed Plan Revisions (includes hyperlinks to documentation with proposed revisions incorporated)

2045 Metropolitan Transportation Plan (MTP)

Overview of Proposed Plan Revisions

May / June 2021



Reason for Amendment / Modification:

In February 2021, the Federal Highway Administration (FHWA) and the Florida Department of Transportation (FDOT) provided additional guidance and clarification relating to “consistency between planning documents” and the relationship of the MTP to the Transportation Improvement Program (TIP) and FDOT Work Program. Per FHWA guidance, a snapshot of the adopted TIP, including state and federal projects fully funded in advance of 2026, must be included in the Cost Feasible Plan’s budget allocation tables. The currently adopted 2045 MTP only includes significant partially-funded TIP projects with remaining phases to be funded in Plan Period 2026-2030 and 2031-2035 of the Cost Feasible Plan.

To proactively comply with state and federal long range planning requirements, MetroPlan Orlando staff is proposing these Plan Revisions to better reflect the TIP in the 2045 MTP’s Cost Feasible Plan. In addition, due to the required effort in updating the budget tables for TIP projects, MetroPlan Orlando staff is taking this opportunity to address feedback received from agency partners following the adoption of the 2045 MTP in December 2020.

Changes to Technical Reports / Documentation:

Requested amendments /modifications will be made to the *Cost Feasible Plan: Strategies, Programs, and Projects and Congestion Management Process (CMP)* documentation of the adopted 2045 Metropolitan Transportation Plan.

1. Cost Feasible Plan – Modification: Federal and state funded projects within the TIP were added to the Cost Feasible Plan’s budget allocation tables for the years 2020-2025. The projects included those with funding allocated through the construction phase, and historic project costs (those prior to 2020) were not added to the Cost Feasible Plan’s budget allocation tables. The TIP projects were added to the following tables, and are identified by an MTP ID that begins with “EC”. The addition of these TIP projects did not impact existing cost feasible projects.
 - a. Table 6, Interstate Highway System and Strategic Intermodal System: 14 TIP projects were added.
 - b. Table 9, State Highway System: 122 TIP projects were added.
 - c. Table 11, Transportation System Management and Operations/ITS: 52 TIP projects were added.
 - d. Table 12, Complete Streets: Three (3) TIP projects were added.
 - e. Table 13, Pedestrian and Bicycle Infrastructure: 37 TIP projects were added.
2. Cost Feasible Plan – Amendment: The off-system capacity improvement program (Table 10) was broadened to include other multimodal needs, in addition to capacity, for facilities located off of the state highway system. The new program no longer identifies specific projects, rather it will be implemented annually in coordination with the Technical Advisory Committee (TAC) and projects will be identified on the Project Priority List (PPL). The projects which were previously located in Table 10 have been relocated to the appropriate Orange, Osceola, and Seminole County local project list (Tables 16, 17, and 18) respectively.

3. Cost Feasible Plan – Amendment: Minor updates were also incorporated based upon feedback received after the MTP Adoption on December 9, 2020. A summary of the updates is included below:
 - a. Sandspur Trail – The City of Maitland has opted to fund the project through an alternative source and will not use federal or state funds for implementation. The project has been removed from Table 13, Pedestrian and Bicycle Infrastructure.
 - b. Orange Blvd – Seminole County has opted to fund the project through an alternative source and will not use federal or state funds for implementation. The project has been removed from Table 12, Complete Streets.
 - c. Orange Ave/Holden/Gatlin Intersection – Updated the project cost to reflect the rail relocation construction. The project remains Cost Feasible in Plan Period 2 (2030-2035).
 - d. Windermere Ward Trail – The Town of Windermere requested to add the trail segment to Table 13, Pedestrian and Bicycle Infrastructure. The project is shown as unfunded need.
 - e. Osceola County requested minor editorial revisions to clarify project locations and limits for previously unnamed roadways, removing a few projects that were either cancelled or completed since the time of the MTP’s adoption, and splitting a project into separate project items with abutting limits for ease of future implementation. The editorial revisions did not impact project cost feasibilities.
4. Congestion Management Process – Modification: Documentation revised to include updated information from FDOT pertaining to Emergency Response and Roadway Clearance times (Table 1). Previous data reported in the adopted CMP was extracted directly from FDOT’s SunGuide system. Updated clearance time data was provided by FDOT District Five’s Transportation Incident Management (TIM) Coordinator.

Hyperlinks to documentation with proposed revisions incorporated:

- Cost Feasible Plan: https://metroplanorlando.org/wp-content/uploads/2045MTP_CostFeasiblePlan_Adopted-Dec2020_ProposedRevisions-MayJune2021.pdf
- Congestion Management Process: https://metroplanorlando.org/wp-content/uploads/2045MTP_CongestionManagementProcess_Adopted-Dec2020_ProposedRevisions-MayJune2021.pdf

For additional information regarding these Plan Revisions:

Please contact Alex Trauger, Manager of Transportation Planning at ATrauger@metroplanorlando.org

TAB 4





metroplan orlando

A REGIONAL TRANSPORTATION PARTNERSHIP

June 9, 2021

To: Commissioner Viviana Janer, Board Chairwoman
MetroPlan Orlando Board Members

From: Gary Huttman, Executive Director

Subject: Executive Director's Report

- I continue to participate in the bi-weekly team calls with the Brightline staff
- I attended (virtually) the CFX Board Meeting on May 13
- I met with Eric Waldron from Representative Demings office on May 13
- I met with FDOT leadership to discuss MetroPlan Orlando projects and stimulus funds
- I met with City of Orlando staff members on May 18 to discuss MetroPlan Orlando, our work products and processes
- I participated in APTA's Virtual Fly-In on May 19
 - I met with staff from Representative Deming's Office
 - I met with staff from Senator Scott's Office
 - I met with staff from Senator Rubio's Office
- I participated in a new Board Member orientation with Commissioner Sheehan from the city of Orlando on May 20
- I attended the TSMO Committee meeting on May 21
- I attended the TAC meeting on May 21
- I attended an FDOT meeting for a status on the Beyond the Ultimate project on May 24
- I attended the CAC meeting on May 26
- I attended the FDOT monthly MPO Executive Directors meeting on May 27
- I met with staff members of the Orlando Sports Commission on June 1.
- I attended the MAC meeting on June 3
- I met with Commissioner Janer for our MetroPlan agenda review on June 3
- I met with Commissioner Uribe for our MetroPlan agenda review on June 3
- I met with Commissioner Dallari for our MetroPlan agenda review on June 3
- I met with Mayor Demings for our MetroPlan agenda review on June 4
- I attended the Orange County State of the County event on June 4
- I attended the Regional TSMO Working Group on June 8

Corona Virus Response & Relief Supplemental Appropriations Act (CRRSAA)

- There is an additional \$470M coming to FDOT in the way of COVID relief
- \$89M of this will be suballocated to some of the MPOs in the state, including MetroPlan Orlando
- MetroPlan Orlando anticipates about \$11.2 million
- We received guidance on February 24 from the FHWA on the distribution and use of these funds
- MetroPlan staff will continue working with the FDOT to get these funds programmed
- MetroPlan prepared a list of 8 candidate projects, consistent with our adopted TIP, to receive funding under this program
- Funds must be obligated by September 30, 2024

General Appropriations Request for Projects

- Applications were due to our Congressional Representative office by April 1
- Each Representative then submitted their project list to the Appropriations Committee on April 28
- These projects were for relatively small improvements with an estimated cost of \$1M or less

Federal Transportation Reauthorization Bill Request for Projects

- Surface Transportation requests also included a very short turn-around time
- Applications were due to our Congressional Representative office by mid-April
- Each Congressional Representative was to submit a list of project(s) totaling \$15-20M

Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grants. RAISE is formerly known as BUILD and TIGER

- These applications are due July 12
- We are working with FDOT and our partners on potential projects to be included
- I provided a letter of support for Osceola County's Neptune Road project

FDOT

- I continue regular meetings with FDOT leadership team

NARC

- The Annual meeting, originally scheduled to be in Atlanta, will be virtual from June 14-17

MetroPlan Office Operations

- The MetroPlan Office closed to public access near the end of March, 2020
- We will begin July 1 with in person committee and board meetings
- Staff members have been working from the office more frequently.
- We will continue to take the steps necessary to make it a safe environment
- This will be monitored and modified as warranted
- The office will continue to be closed to the public

**Orange/Osceola/Seminole County Project Status Update
as of April 29, 2021**

The following is a brief status update on major FDOT road construction projects in Orange and Osceola counties as of the April cutoff. The next cutoff date is May 16, 2021. Information is also available on www.cflroads.com. For questions, please contact Anna Taylor at 386-943-5499 or via email at Anna.Taylor@dot.state.fl.us.

Upcoming projects:

441017-1 US 441/US 17-92 from north of Cypress Street to Old Dixie Highway

- Contract E53A9
- Contractor: Ranger Construction Industries, Inc.
- Project Cost: \$789,000
- Estimated Start: May 2021
- Estimated Completion: Fall 2021

442087-1 SR 552 at Fredrica Drive

- Contract E52A1
- Contractor: ACCE JV (Atlantic Civil Constructors Corporation & Chincor Electric, Inc.)
- Project Cost: \$876,000
- Estimated Start: May 2021
- Estimated Completion: Fall 2021

441036-1 & 439487-1 U.S. 441 (Kenansville Road) Resurfacing from Okeechobee County Line to S.R. 60 and S.R. 60 Widening from east of S.R. 15 (U.S. 441) to west of S.R. 91 (Florida Turnpike)

- Contract T5688
- Contractor: OHL USA INC
- Project Cost: \$4.7 Million
- Estimated Start: July 2021
- Estimated Completion: Early 2022

442088-1 S.R. 50 at Oberry Hoover Rd - Signals Installation

- Contract E54A0
- Contractor: Chinchor Electric, Inc.
- Project Cost: \$606,000
- Estimated Start: July 2021
- Estimated Completion: Summer 2021

441197-1 S.R. 426 (West Fairbanks Ave) from U.S. 17-92 to Ward Avenue turn lane extension, roadway resurfacing and sidewalk improvements

- Contract E53A6
- Contractor: Hubbard Construction Company
- Project Cost: \$320,200
- Estimated Start: June 2021
- Estimated Completion: Summer 2021

Current projects:

439237-1 & 441146-1 S.R. 535 (Apopka-Vineland Road) Resurfacing from south of International Drive to south of Hotel Plaza Boulevard

- Contract E5Z93
- Project Start: March 2021
- Estimated Completion: Spring 2022
- Contractor is working on drilled shafts, directional bores, and concrete work in the median and sidewalk. Crews are also performing widening work and installing asphalt base for the outside areas between Lake Beach Bryan Boulevard and World Center Drive.

441021-1 S.R. 53/U.S. 192 Resurfacing from west of S.R. 417 to Bamboo Lane

- Contract E51A5
- Project Start: January 2021
- Estimated Completion: Fall 2021
- Contractor has started milling and paving activities. Crews are also working on drainage structures, curb and gutter, sidewalk, pavers, and signalization.

407143-4, 407143-5 & 407143-6 S.R. 482 (Sand Lake Road) from west of International Drive to east of Florida's Turnpike and International Drive from Jamaican Court to north of Sand Lake Road

- Contract T5552
- Project Start: October 2016
- Estimated Completion: Spring 2021
- Project was partially accepted as complete on March 25. However, the contractor still has minor punch list items they are wrapping up, such as signal work and a valve repair.

239496-3 S.R. 423 (John Young Parkway) Widening from S.R. 50 to Shader Road

- Contract T5538
- Project Start: January 2018
- Estimated Completion: Spring 2021
- Project was completed 4/13/2021.

437341-1 S.R. 435 (Kirkman Road) Resurfacing from north of S.R. 482 (Sand Lake Road) to south of S.R. 408 (excluding north of International Drive to Major Boulevard)

- Contract T5628
- Project Start: August 2019
- Estimated Completion: Summer 2021
- Crews are paving friction course; installing permanent signs, pavement markings, striping and truncated domes; and working on signalization.

239714-1 S.R. 600/U.S. 17-92 Widening from west of Poinciana Boulevard to Ham Brown Road (C.R. 535)

- Contract E5Z33
- Project Start: February 2019
- Estimated Completion: Spring 2022
- Contractor is paving, excavating ditches, pouring sidewalk and curb, installing drainage and lighting, and monitoring Phase 2 surcharge.

439885-1 Osceola County Pedestrian Lighting Bundle A

- Contract T5645
- Project Start: June 2020
- Estimated Completion: Spring 2021
- Contractor is working on remaining spread footers at various intersections along U.S. 192.

439880-2 Orange County Pedestrian Lighting Bundle B

- Contract E50A5
- Project Start: February 2021
- Estimated Completion: Spring 2021
- Contractor is installing load centers along U.S. 441 between Lancaster Road and 39th Street.

439880-7 Orange County Pedestrian Lighting Bundle G

- Contract T5638
- Project Start: January 2021
- Estimated Completion: Spring 2021
- Contractor has begun installing light pole foundations and has completed installing bores and pull boxes.

436679-1, 436679-2, 436857-1 Resurfacing/Widening U.S. 17-92 from north of Lake Mary Boulevard to north of Airport Boulevard, along with intersection improvements at Airport Boulevard

- Contract T5686
- Project Start: March 2021
- Estimated Completion: Spring 2022
- Contractor is working on drainage, utility relocation, soft digs, and lighting relocations.

240196-1 Widening U.S. 17-92 from Shepard Road to Lake Mary Boulevard

- Contract T5557
- Project Start: May 2016
- Estimated Completion: Summer 2021
- Paving is continuing throughout the project. Crews are also working on drainage, ITS, lighting, and signalization.

424217-1 Widening S.R. 414 (Maitland Boulevard) from S.R. 400 (I-4) to C.R. 427 (Maitland Avenue)

- Contract T5625
- Project Start: February 2019
- Estimated Completion: Early 2021
- Project was completed on 4/16/2021.

440821-1 Ped/Safe Greenway Development ITS Communication

- Contract T5639
- Project Start: September 2019
- Estimated Completion: Summer 2021
- No lane closures recently for this project.

439235-1, 437544-1 Resurfacing along S.R. 551 (Goldenrod Road) from S.R. 426 (Aloma Avenue) to S.R. 50 (East Colonial Drive) and from S.R. 15 (Hoffner Avenue) to S.R. 552 (Curry Ford Road)

- Contract T5669
- Project Start: February 2020
- Estimated Completion: Spring 2021
- Project was completed on 4/1/2021.

434931-1 S.R. 436 from Boston Avenue to Anchor Road Improvements

- Contract T5680
- Project Start: May 2020
- Estimated Completion: Summer 2021
- Utilities, widening and sidewalk construction activities. Currently no lane closures for this project.

441211-1 Countywide ATMS-DMS Phase 1 Seminole County

- Contract E5Z94
- Project Start: May 2019
- Estimated Completion: Fall 2021
- Contractor has been removing existing message board signs and continues to place uprights at various locations. Nighttime lane closures as needed.

441365-1-52-01 S.R. 436 (Semoran Boulevard) at Howell Branch Road Intersection Improvements

- Contract T5701

- Project Start: January 2021
- Estimated Completion: Fall 2021
- Contractor is placing mast arms at the intersection and completing paving operations with overnight lane closures.

May 11, 2021

Pete Buttigieg
Secretary
US Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590
United States

Re: Rebuilding American Infrastructure with Sustainability and Equity (RAISE) 2021 Grant
Letter of Support for Osceola County, Florida - Neptune Road Widening and Improvement Project

Dear Secretary Buttigieg:

On behalf of MetroPlan Orlando, the metropolitan planning organization for Orange, Seminole and Osceola Counties I am requesting your support for Osceola County's RAISE grant request for the Neptune Road Widening and Improvement Project. Osceola County is applying for a \$18.1 million grant to help defray the \$72.4 million cost of widening and rebuilding Neptune Road, a critical east-west arterial that connects the cities of Kissimmee and St. Cloud, and provide new mobility options for those who live in Osceola County's expansive rural regions. Roughly 75 percent of the Project costs will be paid for with local funds.

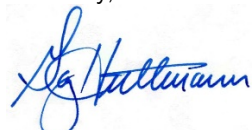
Importantly, the Project will provide vital safety improvements along the corridor – as the number of crashes along Neptune Road has nearly tripled within the last few years and the number of crash-related injuries along the corridor has more than doubled.

Osceola County is the second fastest growing county in all of Florida. For a relatively nominal federal investment, this project will expand transportation options for the county's exploding population, which is predominantly Hispanic and lags the nation, the state and the region in economic indicators. The Project also will improve connections between existing rural and urban areas and to a federally-designated Opportunity Zone along the corridor's northern border. This will help grow economically depressed and rural economies while providing ready access to suburban and urban areas, including SunRail, Central Florida's eco-friendly commuter rail project. It also will improve freight mobility throughout the region by providing motorists with a parallel alternative to heavily congested U.S. 192, and reduce noxious car emissions with less idling in chronic stop and go traffic.

The planned improvements to Neptune Road also will facilitate access to thousands of high-wage jobs at the new NeoCity development. NeoCity is an emerging 500-acre campus of smart sensor research and development in the education, aerospace, commercial and military sectors located along the northern border of Neptune Road. The Project also will enhance access to several health care clinics, as well as Osceola Regional Medical Center and the Advent Health campus in Kissimmee.

In sum, the Project meets and exceeds the criteria that the U.S. Department of Transportation hopes to address with the RAISE Grants, which is why MetroPlan Orlando seeks your support and wholeheartedly endorses Osceola County's application for federal assistance.

Sincerely,



Gary Huttman, AICP
Executive Director

May 19, 2021

Mr. Vincent Osier
Geographic Standards, Criteria, and Quality Branch
Geography Division
U.S. Census Bureau

Re: Urban Areas for the 2020 Census-Proposed Criteria (Docket No. 210212-0021)

Dear Mr. Osier:

The Association of Metropolitan Planning Organizations (AMPO), the American Public Transportation Association (APTA), the Community Transportation Association of America (CTAA), the National Association of Counties (NACo), the National Association of Development Organizations (NADO), the National Association of Regional Councils (NARC), and the National League of Cities (NLC) are writing to jointly request consideration of the following comments in response to the U.S. Census Bureau's Urban Areas for the 2020 Census-Proposed Criteria (Docket No. 210212-0021) that was published in the Federal Register on February 19, 2021, and would substantially impact the operations of local governments, planning organizations, and public transit agencies if you proceed as proposed.

The undersigned organizations represent a broad coalition of local stakeholders including cities, counties, metropolitan planning organizations, regional and rural planning organizations, and public transit agencies from across the country. Our organizations work on behalf of local and regional government entities that carry out the transportation policy and planning requirements resulting from Congressional legislation and Federal regulations as well as the allocation and investment of federal funds. Cities, counties, and townships own and maintain almost 3.1 million miles of America's roads, making up almost 80% of the national road network. Local and regional government entities serve a critical role in working with stakeholder agencies to ensure the safe and efficient movement of people and goods.

The data provided by the decennial census serves as a basis for not only many planning and programming activities, but for significant long-term investment decisions. The undersigned organizations have reviewed the proposed criteria in coordination with local stakeholders nationwide, industry partners, and both the Federal Highway Administration and Census Bureau. We ask for attention to the following concerns for your due consideration before proceeding:

One-size does not fit all metropolitan areas.

The proposed change from population as the main criterion to housing unit density when determining the qualification of census blocks as urban does not support the variety of urban development and land use patterns seen throughout the nation. In areas where development is more constrained, this may be a reasonable criterion; in areas where more space is available, development patterns change and housing unit density decreases despite serving an urban core economically. As such, this shift will not adequately represent the urban areas serving all types of metropolitan areas. Our members also raised concerns about the proposed elimination of census tracts as the basis for designating an urban area, which may cause data and analysis challenges by



dramatically increasing the number of urban cores in a region to an unworkable number or resulting in the elimination of blocks that are highly similar in land use and density to surrounding blocks but that fall just below the designated housing density threshold.

Separately, a shift to housing unit density will affect vacation communities that cater to seasonal activities such as skiing and beach rentals, in some cases propelling them into a traditionally classified urbanized area when the year-round population would not support such a designation. This emphasis on housing unit density can erroneously overstate and understate the actual metropolitan urban area. We also heard from several members that are concerned this misstatement is likely to be even more pronounced by the application of outdated impervious surface data (from 2016), which will have disproportionate impacts on the urban form of faster growing areas.

The proposed changes to hops and jumps are also examples of where regional development patterns are not adequately accounted for. Certain areas of the country have topographical limitations that affect their development, such as seasonal floodplains and steep mountainsides, neither of which are currently included in the list of exemptions. Combined with these topographical limitations, development rarely occurs in a linear fashion, moving from one block to the next. In the absence of an expanded or more flexible list of exemptions, the 2.5-mile jump distance is a reasonable accounting of these development patterns in urban form. Therefore, we recommend maintaining the 2.5-mile jump distance when the commuting to the core urbanized area supports inclusion of outer areas in the urbanized area designation.

In addition to the above comments regarding methodology, the undersigned organizations have significant concerns related to the impacts that these proposed changes could have on the organizational structure and funding of local and regional governments throughout the nation. We are particularly concerned about the metropolitan transportation planning process as defined in 23 U.S. Code § 134. Several of the changes proposed to the urban area definition could result in a number of areas falling below the 50,000 population threshold for a metropolitan planning organization; in other cases, metropolitan planning organizations could lose their transportation management area status by falling below the population threshold of 200,000 individuals. While it is our understanding that the impacted metropolitan planning organizations *could* remain designated as an MPO and/or TMA, the possibility remains that they will lose critical funding, even in urban areas that are experiencing an overall growth in population. We are unable to anticipate the severity of these impacts due to the lack of available data and data limitations. While we understand that the U.S. Census Bureau's primary focus and concern is with the methodology, we strongly urge you to consider the potential consequences of the proposed changes as they could jeopardize the safe and efficient coordination of transportation systems across the country.

Data is unavailable to assess the proposed changes, preventing the Census Bureau, other federal agencies, regional and local representatives from anticipating the full range of consequences.

Without the actual 2020 Census data it is an insurmountable task to evaluate the proposed urban area criteria and how these changes will impact our regional and metropolitan members. We are being asked to comment on these changes without a full view of what they will mean. To allow all effected stakeholders an appropriate

opportunity to comment on these changes, either (1) the Census Bureau must provide an analysis for the urban areas using 2020 preliminary data with the proposed changes in methodology or (2) this notice must be reissued once the full 2020 data set has been released and is available for analysis. It is unreasonable to expect any sort of robust assessment or comments from stakeholders given these data limitations.

Overall, the proposed changes seem to be an attempt to narrow the definition of an urban area. This is extremely concerning because it does not account for unique regional and local differences nor does it account for the thousands of programs and affiliations that are disrupted by these changes at a time when U.S. cities are emerging post-pandemic and where staff resources have been strained to focus on the pressing issues ahead.

Out of the hundreds of metropolitan areas in the nation, no two are the same. However, they are united in that changes to this baseline definition create an unknown level of ripple effects where the consequences without consideration of the impacts are inexcusable.

For the reasons stated in this letter, our organizations strongly urge the U.S. Census Bureau to:

- 1. Delay implementing these proposed changes, at least until such time as a more thorough and accurate assessment of the proposed changes can be conducted based on 2020 Census data.**
- 2. Consider implementing a feedback mechanism, similar to the Participant Statistical Areas Program (PSAP) process, that would allow metropolitan and regional planning organizations the opportunity to provide feedback, based on verifiable local data, that would allow for the reconsideration of the designation of certain blocks if they could be proven to be of a different nature than Census analysis provides.**

The undersigned organizations would appreciate the opportunity to meet with you to discuss these comments on the Urban Areas for the 2020 Census-Proposed Criteria at your earliest convenience. If you have any questions or comments regarding this letter, please feel free to contact Bill Keyrouze at bkeyrouze@amp.org.

Respectfully,

Association of Metropolitan Planning Organizations
American Public Transportation Association
Community Transportation Association of America
National Association of Counties
National Association of Development Organizations
National Association of Regional Councils
National League of Cities

Cc: The Honorable Gina M. Raimondo, Secretary, U.S. Department of Commerce



May 19, 2021

Mr. Matthew J. Welbes
Executive Director
Federal Transit Administration
1200 New Jersey Ave, SE
Washington, DC 20590

RE: Central Florida Regional Transportation Authority, d/b/a LYNX
FY 2021 Pilot Program for State Road (SR) 436 Transit-Oriented Development Planning

Dear Mr. Welbes:

On behalf of MetroPlan Orlando, the Metropolitan Planning Organization for Orange, Seminole and Osceola Counties, I am writing to express my support for the Central Florida Regional Transportation Authority's (LYNX) request for the FY 2021 Pilot Program for State Road (SR) 436 Transit Oriented Development Planning. LYNX operates the public transportation system in our three-county region, providing critical connections for residents in the community and helping to alleviate congestion on Central Florida's roadways. The goal of this proposed project is to support comprehensive TOD planning along an approximately 6.25-mile portion of the corridor associated with the SR 436 fixed guideway BRT project.

Through this grant opportunity, LYNX will be able to identify the comprehensive community vision for a portion of the SR 436 corridor. Community outreach that includes residents, community groups, businesses, the private sector, and other key stakeholders is vital to planning for TOD around the future BRT stations. Reflecting the housing and transportation burden many households in this corridor face, the proposed project will consider anti-displacement measures for the area and a review of development potential around station areas with the goal of creating policies that help to create equity and preserve and increase affordable housing options.

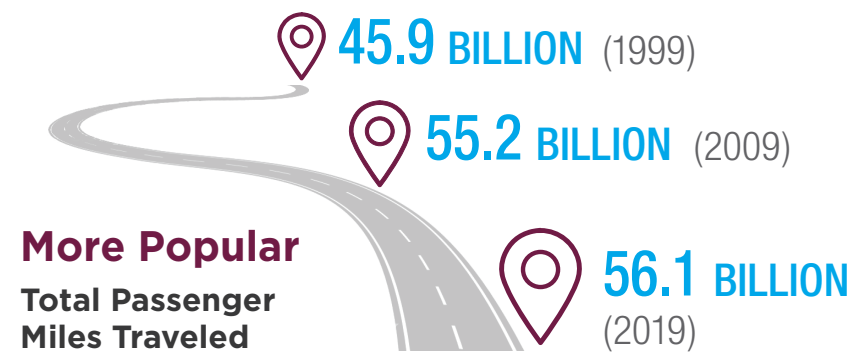
The proposed project will benefit the community by planning for multimodal connectivity to improve the safety and comfort for pedestrians traveling along the corridor. Better connectivity along this corridor will enhance ridership access and economic development by creating a seamless connection with regional transit options and international travel at the Orlando International Airport, the southern terminus of the BRT corridor.

Thank you in advance for your consideration of this project.

Sincerely,

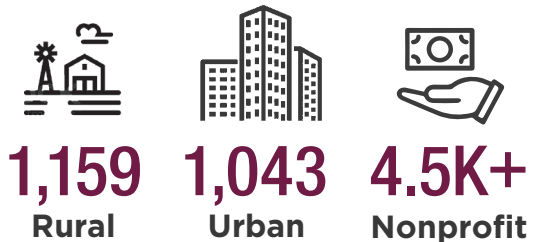
Gary Huttman, AICP
Executive Director

TODAY, PUBLIC TRANSIT IN AMERICA IS...



More Widespread

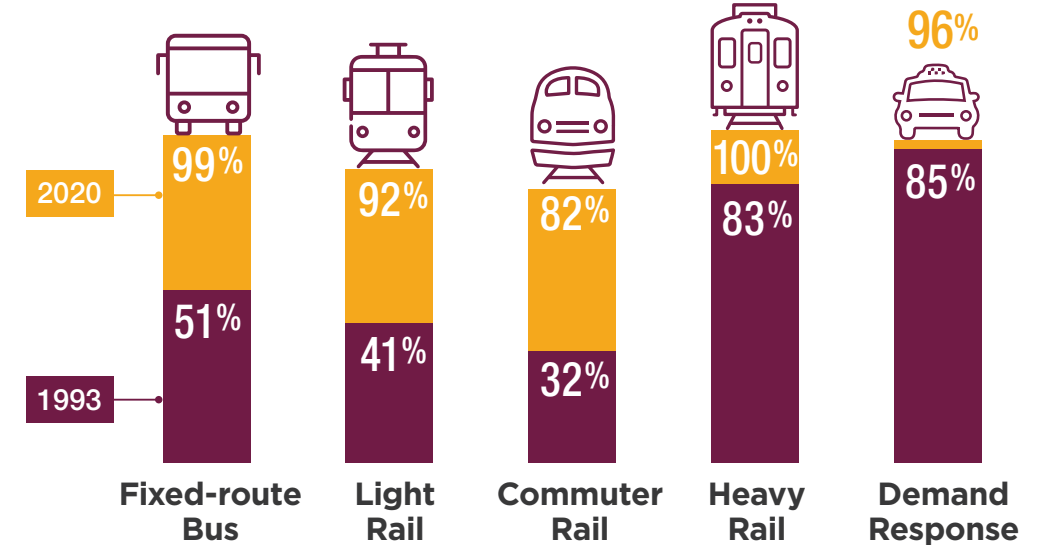
Public transit systems are...



More Accessible*

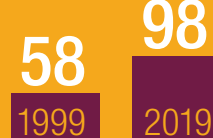
Share of Accessible Public Transit Vehicles

*transit system accessibility is also affected by station accessibility



EXPANDING

Total Number of Rail Systems

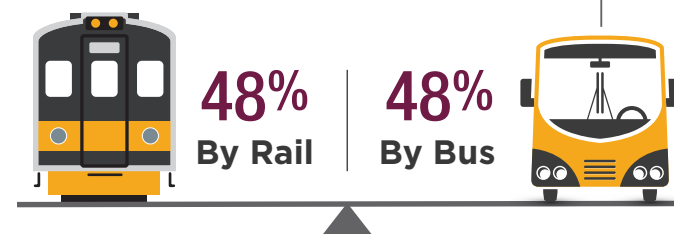


>52%

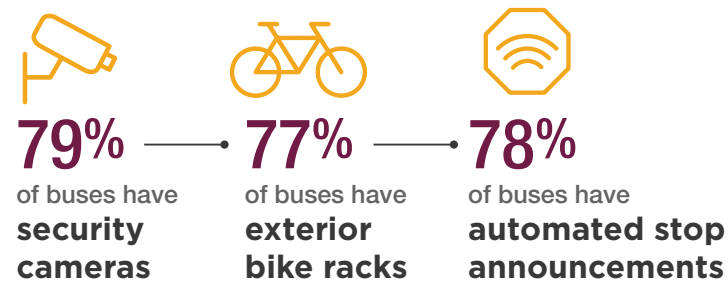
Increase in Rail Ridership Since 1999

More Balanced

Public transit trips are...



More Accessorized



Growing

From 1995 – 2019

23% Increase in Population Growth

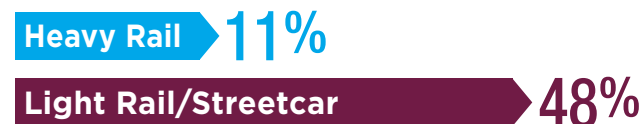
28%

Increase in Public Transit Ridership



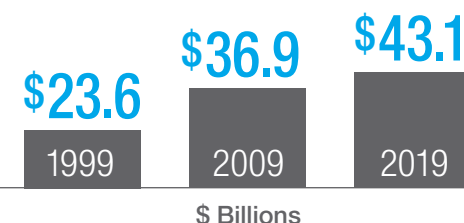
More Efficient

Increase in Vehicle Miles Operated per Kilowatt-Hour over the Past 30 Years



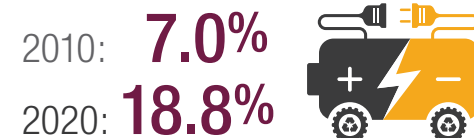
Receiving More Investment

Transit Spending in the Private Sector



Leading in Clean Technology

Share of Hybrid Electric Buses



(According to APTA's 2020 Vehicle Database)

Lowering Carbon Emissions

84% less CO₂ emissions by using the subway rather than a car

(According to TCRP "Report 226: An Update on Public Transportation's Impacts on Greenhouse Gas Emissions")

Saving Lives

Cities with more than 40 annual public transit trips per person have **half the traffic fatality rate** of those with fewer than 20 trips per person



(According to APTA's "The Hidden Traffic Safety Report: Public Transportation")

Reducing Gasoline Consumption

6.0 BILLION

Gallons of Gas Saved

each year by using public transportation

(According to TCRP "Report 226: An Update on Public Transportation's Impacts on Greenhouse Gas Emissions")

Driving the Economy

87% of trips on transit directly benefit the local economy

50% of trips are to and from work
37% of trips are to shopping and recreational spending

(According to APTA's "Who Rides Public Transportation")

Creating Jobs

448K+ people directly work for public transportation agencies

Long-term investment in public transit supports 50,000 jobs and \$382 million in tax revenue per \$1 billion invested

(According to APTA's "Economic Impact of Public Transportation Investment: 2020 Update")

Bus Manufacturing = Jobs Across America

Strong public transportation makes our economy grow and makes the U.S. more competitive

Quick Facts

- An investment of \$1 billion in public transportation creates or sustains nearly 50,000 jobs.
- Public transportation is a \$74 billion industry that directly employs more than 435,000 people and supports millions of private sector jobs.

ORIGINAL EQUIPMENT MANUFACTURERS (OEM)

Alabama, California, Florida, Georgia, Illinois, Indiana, Kansas, Michigan, Minnesota, New Jersey, New York, North Carolina, North Dakota, Ohio, Pennsylvania, South Carolina, Texas, Wisconsin

SEATING & STANCHIONS

Illinois, Michigan, New York, Pennsylvania

STEERING SYSTEM

Illinois, Indiana, Michigan

DRIVER SAFETY SYSTEMS

California

CCTV SURVEILLANCE

California, Colorado, Oregon

COMMUNICATIONS & SIGNAGE EQUIPMENT

Arizona, California, Colorado, Florida, Indiana, Illinois, Massachusetts, Maryland, Michigan, North Carolina, Nebraska, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Texas, Virginia, Washington

FARE SYSTEM

California, District of Columbia, Florida, Georgia, Illinois, Maryland, New Jersey, New York, North Carolina, Tennessee, Texas, Virginia

WHEELCHAIR RAMP & LIFT

California, Indiana

AXLES, BRAKES & SUSPENSION

California, Florida, Idaho, Illinois, Michigan, Minnesota, Missouri, North Carolina, Ohio, Pennsylvania

WINDOWS

California, Georgia, Indiana, Kansas, Kentucky, Michigan, Pennsylvania

ENTRANCE & EXIT DOORS

Illinois, Pennsylvania, South Carolina

INTERIOR LIGHTS

California, Michigan, New Jersey, New York, Tennessee, Texas

ELECTRICAL & MULTIPLEX SYSTEMS

California, Illinois, Michigan, Ohio, Pennsylvania, Texas

TIRES

Kansas, Ohio, South Carolina, Tennessee, Virginia

TRANSMISSIONS

California, Illinois, Indiana, New Jersey, New York, Michigan, Pennsylvania

FINAL ASSEMBLY: Alabama, California, Georgia, Indiana, Kansas, Michigan, Minnesota, New York, North Dakota, South Carolina

HVAC SYSTEM

Arizona, Colorado, Georgia, Minnesota, Nebraska, Pennsylvania

COOLING SYSTEM

Alabama, Georgia, Michigan, Minnesota, New York, Pennsylvania, Tennessee, Texas, Wisconsin

ENGINE PROPULSION TECHNOLOGY

California, Indiana, Massachusetts, Michigan, New York, North Carolina, Pennsylvania, Texas

REVERSE DISTANCE INDICATORS

California

FIRE SUPPRESSION

Alabama, California

Rail Manufacturing = Jobs Across America

Strong public transportation makes our economy grow and makes the U.S. more competitive



SIGNS

California, District of Columbia, Illinois, Michigan, New Jersey, New York, North Carolina, Tennessee, Texas, Virginia

CAR BODY SHELLS

California, Illinois, Nebraska, New York, Missouri, Pennsylvania

LIGHTING

California, Colorado, Connecticut, District of Columbia, Georgia, Illinois, Indiana, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Texas, Virginia

SEATING

Arizona, California, Colorado, Illinois, Michigan, Nevada, New York, North Carolina, Pennsylvania, South Carolina, Texas, Wisconsin

WINDOWS

California, Delaware, Indiana, Kentucky, Ohio, Oregon, Pennsylvania, Washington

HVAC

Alabama, Colorado, Georgia, Maryland, Michigan, Minnesota, Missouri, Nebraska, New York, Pennsylvania

INTERIOR

Minnesota, New York, North Dakota, South Dakota, Washington, Wisconsin

ONBOARD SAFETY SYSTEMS (CAB SIGNALING)

Missouri, Pennsylvania

EVENT RECORDERS

California, Delaware, Georgia, New York, Pennsylvania, South Carolina

MONITORING & DIAGNOSTIC SYSTEMS

California, District of Columbia, Florida, Maryland, New Jersey, New York, Pennsylvania

COMMUNICATIONS

Arizona, California, Delaware, District of Columbia, Florida, Georgia, Illinois, Minnesota, New York, Pennsylvania, South Carolina, Washington

TRACTION POWER OR PROPULSION

Alabama, California, Colorado, Connecticut, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Utah, Virginia, Washington, Wisconsin

TRUCKS & AXLES

California, Delaware, District of Columbia, Florida, Georgia, Illinois, Kansas, Maryland, Nebraska, New Jersey, New York, New York, Pennsylvania, South Carolina

ELECTRICAL

California, Colorado, Connecticut, District of Columbia, Georgia, Illinois, Indiana, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Texas, Virginia

DOOR SYSTEM

Illinois, New York, Ohio, Pennsylvania

BRAKES

California, Delaware, Georgia, Maryland, New York, Pennsylvania, South Carolina

FLOORING

Alabama, California, Massachusetts, Wisconsin

FINAL ASSEMBLY

California, Florida, Illinois, Massachusetts, New York, Pennsylvania, Utah

COUPLERS & DRAFT GEAR

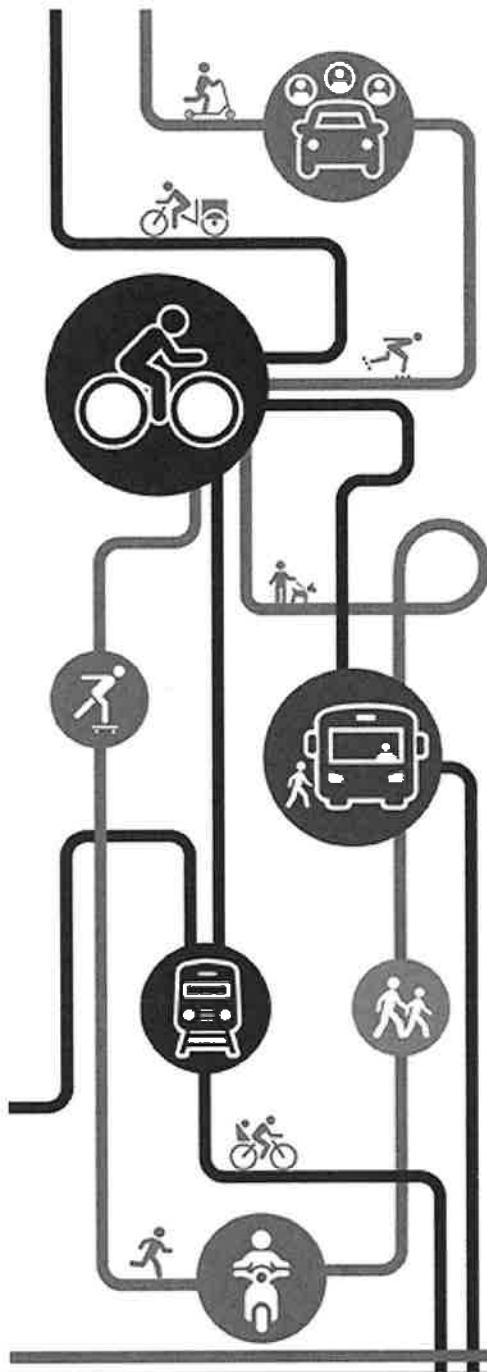
California, Delaware, Georgia, New York, North Carolina, Pennsylvania, South Carolina

WHEELS

Connecticut, Florida, Illinois, New York, Pennsylvania, Texas, Virginia

Quick Facts

- An investment of \$1 billion in public transportation creates or sustains nearly 50,000 jobs.
- Public transportation is a \$74 billion industry that directly employs more than 435,000 people and supports millions of private sector jobs.



Mobility Week

OCT 29 – NOV 5, 2021






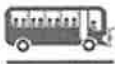






Save the date.

Mark your calendars for Mobility Week 2021 from October 29 through November 5, 2021.

Join communities and partners around the state to promote smart, effective and safe transportation choices. During Mobility Week, cities, counties, and transportation agencies host events or showcase initiatives to promote safe and sustainable transportation choices.

2020 Mobility Week Highlights

7 Districts 67 Counties Statewide

 87 Events	 164 Partners	 11,770 Virtual Room Visitors	 2,021 Love to Ride Participants
 30,000 People Attended Events	 9,500 Free Transit Rides	 28 Virtual Webinars	 13,612 Bike Trips
 18,000 Promotional Items Distributed	 163 Bike Challenge Organizations	 35,300 Virtual Room Links Viewed	 264,676 Bike Miles Ridden

5,561 pounds CO² saved



For news and updates, please visit:

www.MobilityWeekFl.com



To partner with FDOT, send an email to:

contact@mobilityweek.com

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You are receiving this email because you participated in previous Mobility Week events or requested to

Air Quality Monitoring: Ozone Attainment Status

January - April

As of May 1, 2021

Seminole State College (#C117-1002)		
Year	Fourth Highest 8-Hour Average (Displayed in Parts per Billion)	Date
2021	60	24-Mar
2020	60	3-Apr
2019	62	28-May
2018	64	16-Mar

2020 3-Year Attainment Average: 62

2021 Year-to-Date 3-Year Running Average: 61

Change 1

Osceola Co. Fire Station - Four Corners (#C097-2002)		
Year	Fourth Highest 8-Hour Average (Displayed in Parts per Billion)	Date
2021	61	22-Apr
2020	60	22-Apr
2019	72	23-Mar
2018	67	10-May

2020 3-Year Attainment Average: 66

2021 Year-to-Date 3-Year Running Average: 64

Change 2

Lake Isle Estates - Winter Park (#095-2002)		
Year	Fourth Highest 8-Hour Average (Displayed in Parts per Billion)	Date
2021	60	13-Apr
2020	62	3-May
2019	65	28-May
2018	63	17-Mar

2020 3-Year Attainment Average: 63

2021 Year-to-Date 3-Year Running Average: 62

Change 1

Skyview Drive (#L095-0010)		
Year	Fourth Highest 8-Hour Average (Displayed in Parts per Billion)	Date
2021	60	8-Apr
2020	54	3-May
2019	61	21-Mar
2018	60	11-May

2019 3-Year Attainment Average: 58

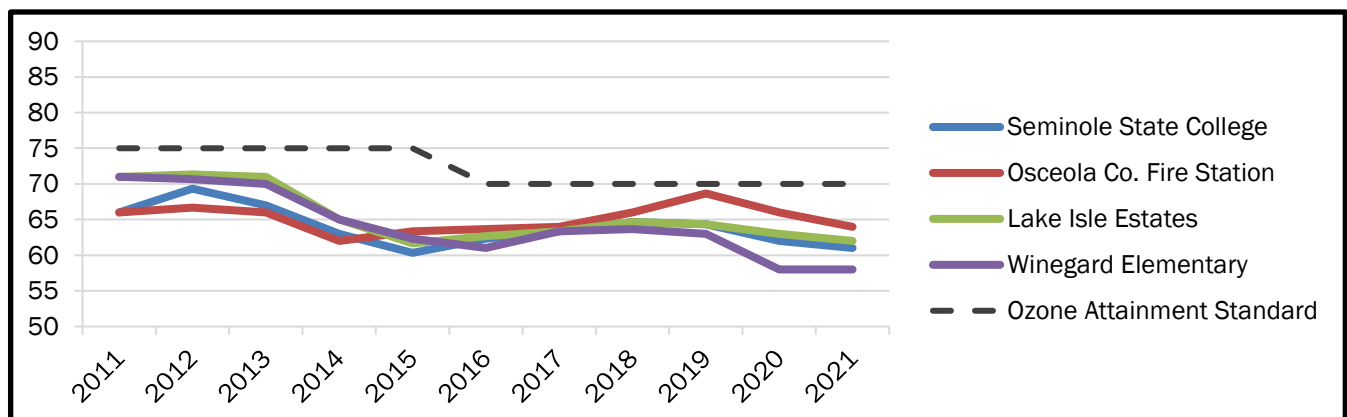
2021 Year-to-Date 3-Year Running Average: 58

Change 0

NOTE: The Winegard Elementary School site is no longer operational; Skyview is replacement

10-Year Historic Ozone Attainment Status

(Displayed in Parts per Billion)

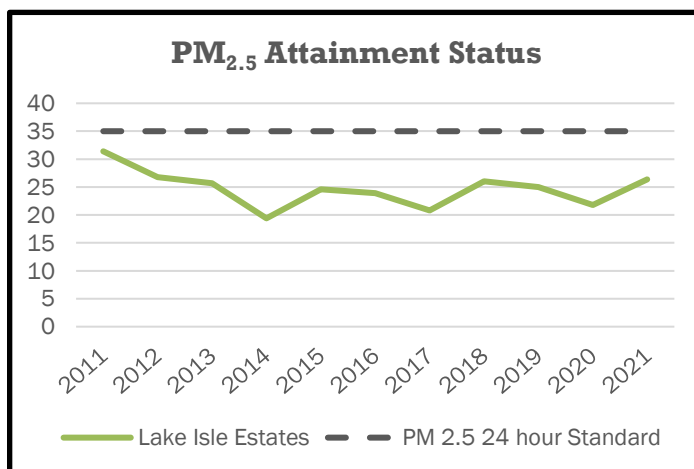


Source: Florida Department of Environmental Protection

Air Quality Monitoring: Particulate Matter 2.5 Attainment Status
As of May 1, 2021

Lake Isle Estates - Winter Park (#095-2002)		
Year	Daily Average PM _{2.5} (micrograms per cubic meter)	Date
2021	26	2-Feb
2020	22	15-Apr
2019	20	22-Jun
2018	23	15-Mar

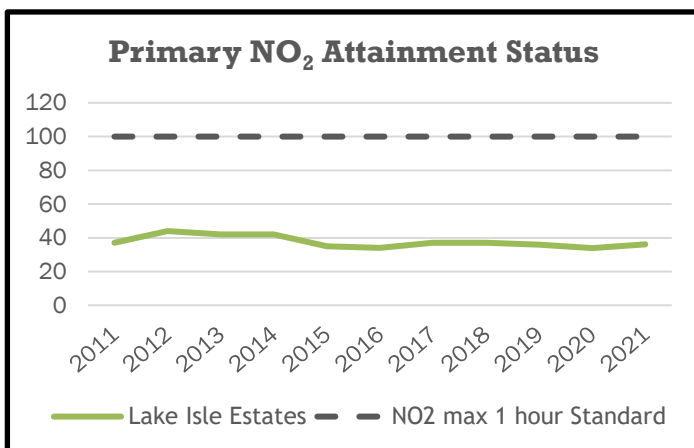
PM _{2.5} 24 hour NAAQ Standard	35
98th percentile, 3 year average - 2021	23
98th percentile, 3 year average - 2020	22



Air Quality Monitoring: Primary NO₂ Attainment Status
As of October 1, 2020

Lake Isle Estates - Winter Park (#095-2002)		
Year	Primary NO ₂ max one hour average (Parts per Billion)	Date
2021	36	2-Apr
2020	34	10-Dec
2019	31	22-Mar
2018	41	17-Apr

NO ₂ max 1 hour average NAAQ Standard	100
98th percentile, 3 year average - 2021	34
98th percentile, 3 year average - 2020	35



Source: Florida Department of Environmental Protection

DEEP DIVE

Automakers and universities team up to fix AV industry's talent gap

Schools are evolving their courses to keep pace with autonomous vehicle technology changes and build the industry's pipeline of workers.

Published May 3, 2021



Chris Teale
Reporter

When the Center for Automotive Research (CAR) at Ohio State University began over 30 years ago, it focused on traditional subjects like the transmissions, noise and vibrations from internal combustion engines, with some attention paid to what was then a growing trend of automotive electronics.

Now, with the advent of autonomous vehicles (AVs), its focus has changed.

"What used to be a predominantly mechanical engineering discipline with some electronics sprinkled in has become an industry that depends on computing power, computer science, electrical and electronic systems and electrochemical energy storage," Giorgio Rizzoni, CAR's director and an OSU mechanical and aerospace engineering professor, said.

The growing emphasis on AVs comes as experts warn of a lack of qualified AV engineers. The dearth of expertise could hamstring the rollout of this much-hyped technology.

"You would think that people would be lining up to work in this area," said Frank Menchaca, chief growth officer at standards-developing organization SAE International. "But the truth is, there is a relatively small pipeline of people who are equipped to be successful in automated driving."

To combat that talent gap and grow the workforce of the future, four-year colleges and universities as well as community colleges and industry groups are starting to offer courses in AV engineering, software development and cybersecurity, with the help of industry experts to develop the curricula.

As the AV industry is estimated to skyrocket to a value of \$556.67 billion by 2026 — from \$54.23 billion in 2019, according to Allied Market Research — industry leaders warn such programs are imperative to ensure that graduates' skills keep pace with the industry's rapid rollout.

Evolving education needs

AV education in the academic setting focuses largely on engineering and software development, with automakers and other industry leaders often playing a key role in helping shape programs for students.

CAR is Ohio State's main research lab for connected and autonomous driving. Among its projects is the EcoCAR, in which student teams compete over four years to re-engineer a Chevrolet Blazer to incorporate AV and electric technologies.

Graduate students also have the opportunity to work alongside some of the manufacturers in the Columbus, Ohio, region, and their thesis projects typically are funded by automakers, Rizzoni said.

■

"You would think that people would be lining up to work in this area. But the truth is, there is a relatively small pipeline of people who are equipped to be successful in automated driving."

Frank Menchaca

Chief Growth Officer, SAE International

The program's teaching focuses on the trend of automation and intelligence in vehicle technology in addition to energy efficiency and reducing carbon emissions. Industry needs and the evolution of driving technology are largely driving that curriculum, Rizzoni said.

"If you were to ask the vice president for research at Ford Motor Company, for example, 'Where's Ford going?' They would tell you: 'More intelligent mobility, different solutions that involve understanding and analyzing data and responding to it in real time,'" Rizzoni said. "In that sense, we think that our future is where the future of the automotive industry is."

The College of Charleston is launching a new electrical engineering degree program this fall with a focus on AVs. The initiative will complement its existing systems engineering degree while teaching students how to connect cars with various sensors, design their movements and operate the vehicles autonomously.

Sebastian van Delden, dean of the college's School of Sciences and Mathematics, said the needs of automakers in the region are driving its offerings as well. Like students at Ohio State, senior students at Charleston will work on a yearlong capstone project alongside Mercedes, Volvo and Bosch, which each have factories in South Carolina.

The degrees can also help graduates who don't end up working directly with AVs, van Delden said. "Nowadays in factories and other settings, they need people who can wire up, connect and program a variety of [internet of things] devices to implement, design and plan some type of system," he said. "Graduates will be very good candidates for those types of positions."

Democratizing job opportunities

Some community colleges and other groups are also getting in on the act.

Pima Community College in Tucson, Arizona, launched the first-ever autonomous driving certificate program for truck drivers in 2019, in partnership with self-driving truck company TuSimple.

The 12-credit program teaches students to operate and work with self-driving trucks while building skills in areas such as logistics, IT and automated industrial technology. The program's introductory class provides a wide view of the AV landscape, including the ethical issues that surround it, like how AVs prioritize lives in a collision.

Missy Blair, advanced program manager at Pima's Center for Transportation Training, said about a dozen students are enrolled in the program right now. The program's first students graduated last fall and are in the hiring process at TuSimple, which prioritizes hiring the center's graduates.

Other education and training providers — beyond academic institutions — also are looking at how they can enter this field to educate people on AVs.

Online course provider Coursera in 2019 announced it had partnered with the University of Toronto on a \$79-a-month course

that will include lessons on AV technologies that include LiDAR, software, motion planning, intersection management and safety. The group says it already has had more than 46,000 enrollees.

SAE International also recently unveiled a boot camp course on robotics for AV systems, a 12-week program designed to halve the average eight-month onboarding time for new engineers at automakers, Menchaca said. The course uses hands-on learning to teach participants to program a mobile robot and teaches various pieces of software engineering, including machine learning, path planning and visual intelligence.

"We want to democratize access to those jobs," Menchaca said.

"We want to work with students that are coming out of all sorts of programs."

Innovation and differentiation

While academic AV programs are still relatively young, institutions are adding their own differentiators to attract to prospective students.

Cybersecurity, for example, has taken on heightened importance, as automakers, cities and academics become increasingly concerned about AV vulnerabilities. George Mason University (GMU) in Fairfax, Virginia, has provided cybersecurity training and research for several decades, including training for AVs and infrastructure.

With that expertise, the university created a cybersecurity engineering degree, the first such accredited program in the country — which now has 500 undergraduate students enrolled in it — and an accelerated master's degree program.

Duminda Wijsekera, a professor of computer science at GMU's Volgenau School of Engineering, said the program comes as automakers and technology firms are concerned about vulnerabilities in their offerings and want to find graduates who can help solve them.

"They want software skills, they want cybersecurity skills, they want people who understand data fusion," he said. "These are very difficult to find in the workforce right now. Our objective is to train this new workforce that are cross trained in an engineering discipline, and also in programming."

Mason hopes to boost those efforts with the launch of its Mason Innovation Lab, a central hub for its labs and other technology, where "more diverse experimentations" can be done, Wijsekera said.

The College of Charleston requires engineering students to study a foreign language for four semesters.

Van Delden said students may gravitate towards German given the country's role in auto manufacturing. The language requirement will help prepare students to be part of an international workforce, he said.

"We're going to give them all the technical stuff, the physics and the math and engineering, but we want an engineer who can think about how to solve those problems within the broader global, societal, cultural and ethical parameters, and the world around us," van Delden said.

AV students at the College of Charleston can also study abroad, something of a rarity in engineering programs due to the number of courses required for study. Students can spend a semester of their sophomore year at either the National University of Ireland or Heriot-Watt University in Scotland.

Impact on the workforce

These academic offerings come as elected officials and others continue to raise concerns about the impacts of AVs on the labor force — most notably, whether they will automate some workers out of a job.

At a 2018 event in Washington, D.C., U.S. Sen. Gary Peters, D-Mich., warned that artificial intelligence and other technology to automate trucks could risk a "hollowing out of the middle class." He also warned that trucking "is where we're going to see some of the earliest application of this technology," which could negatively impact the nation's 3 million truckers.

Peters and others repeated those concerns in the nomination hearing for Transportation Secretary Pete Buttigieg before the U.S. Senate Committee on Commerce, Science and Transportation in January. Buttigieg noted that among emerging technologies, policy has not kept up with innovation, including on workforce development.

Blair, with Pima Community College, said a crucial goal of its course is to help raise public awareness of AVs and help truckers understand that trucking and haulage jobs may change but will never truly disappear.

"Basically, the main message is that while the job isn't going away, it will change."

Missy Blair

Advanced Program Manager, Center for Transportation Training, Pima Community College

"Basically, the main message is that while the job isn't going away, it will change," she said.

The close relationships between automakers and academia on these courses could put students in good stead for their future employment prospects, too. Mercedes and Volvo have a manufacturing presence in South Carolina and have representatives on the College of Charleston's industrial advisory board, and BMW also has a factory in the state.

TuSimple has its main testing facility in Tucson, while Honda has invested in CAR since its launch and has a manufacturing operation close by in Ohio. That local presence helps create a pipeline of local graduates to jobs with those nearby manufacturers.

"A big thing we're trying to accomplish with engineering, just like we've done with computer science here, is really support local economic development," van Delden said. "You have all these big companies now in town, and we want them to hire locally. So why not produce the graduates they need, who can more easily get internships and jobs, because they're here with the companies in town."

With the automotive sector continuing to innovate and become even more focused on technology, Rizzoni said it is imperative for academia to continue to prepare students for that future.

"Our role is to create the next generation of automotive industry leaders and that the next generations will be different than the past generations," he said. "Our mission is to make sure that we prepare them well and that they're ready for the sea of change that is in front of us."

Recommended Reading:

SMART CITIES DIVE

Toyota to buy Lyft's AV division for \$550M [↗](#)

SMART CITIES DIVE

Automotive tech takes the digital stage at CES 2021 [↗](#)

Gary Huttman

From: Eric Hill
Sent: Monday, April 19, 2021 2:08 PM
To: Gary Huttman
Subject: Urban Transit After COVID-19

Gary,

The article by Steve Polzin on C-19 impact on transit service and investments could be a good article for the Board Agenda.

Urban Transit After COVID-19

Here is a recent set of headlines from a couple of reputable sources, to introduce a discussion of how urban transit will need to change when we enter the post-pandemic period:

- [“Remote Work Is Here to Stay. Manhattan May Never Be the Same,”](#) Matthew Haag, *The New York Times*, March 29, 2021
- [“If Rush Hour Dies, Does Mass Transit Die with It?”](#) Henry Grabar, *Slate*, Feb. 11, 2021
- [“Riders Are Abandoning Buses and Trains. That’s a Problem for Climate Change,”](#) Somini Sengupta, et al., *The New York Times*, March 25, 2021

The reporters of these stories reflect genuine concerns, but my impression is that many in the transportation community have not fully thought through the implications for urban transit in the “after” COVID-19 times. One expert who has is Steve Polzin, a former transit official, university professor, and most recently as a senior advisor for research and technology at the U.S. Department of Transportation. After reading a detailed paper that he and a colleague produced while at DOT last fall, Reason Foundation commissioned Polzin to write a policy brief focusing specifically on how transit will have to change, and why. The new report, [“Public Transportation Must Change after COVID-19,”](#) was published last week and you can find it [here](#).

Polzin first reminds us that in the five years prior to the coronavirus pandemic, transit experienced a significant loss of ridership, before appearing to stabilize at a lower level by 2019. Then the pandemic led to former transit riders avoiding buses and rail transit in favor of cars, bikes, walking, and working at home. Comparing January 2020 (pre-pandemic) with January 2021, unlinked transit trips were 65% less (though transit vehicle miles of service decreased only 23% for the same months).

Alas for those hoping for a post-pandemic return to “normal,” among the factors leading to permanent changes are, of course, some degree of permanent shifts to working from home, either part-time or full-time, along with the continued popularity of network companies like Lyft and Uber, a millennial generation that is getting older and buying houses in the suburbs, and a general movement of people and companies from higher-density to lower-density locations.

Polzin points out that even if many people work at home Mondays and Fridays, but still work in the office mid-week, this will “make it harder to justify peak capacity capital investments and complicate service scheduling.” In terms of permanent work-at-home shifts, he notes that if this share doubles from pre-pandemic levels of 5.7% to about 12% of people working from home, that could mean 15%-to-20% fewer downtown workers, a major change for downtown-focused rail transit systems.

Another section of the brief looks at declining vehicle occupancy by transit mode: bus, light rail, heavy rail, and commuter rail. All four are down significantly, but some much more than others. And this makes a surprising difference in the environmental friendliness of these modes. Here is his comparison of pre-pandemic vs. December 2020 fuel economy of various commuter modes, drawn from the U.S. Department of Energy Alternative Fuels Data Center plus estimated occupancies from the National Transit Database. The metric is passenger miles per gasoline gallons equivalent; hence the highest numbers are best.

	Pre-COVID	Current
Commuting Mode		

Heavy rail	50.4	18.0
Automobiles	41.7	41.7*
Commuter rail	39.6	10.9
Light trucks/SUVs	36.1	36.1*
Transit bus	26.6	14.5
Demand response (Uber, Lyft)	9.2	9.2*
*assumed to be unchanged		

As of December 2020, the most fuel-efficient means of commuting was the car, followed by light trucks—but only because occupancy embedded in the transit calculations was so drastically low. Obviously, when we get past the pandemic those figures should rise but whether mass transit will be able to rebuild enough ridership to be more fuel-efficient (and hence more carbon-friendly) remains to be seen, and as you can see from the current numbers, transit has a long way to go.

A major premise of the Biden administration's transportation agenda is to greatly increase federal spending on transit, compared with only modest, constrained increases for highways (with very little scope for adding highway capacity). This approach poses major risks of putting billions of taxpayer dollars into projects that will have costs far greater than their benefits (e.g., light rail systems for medium-sized cities, megaproject expansions of heavy rail and commuter rail systems, etc.).

At the very least, it is premature at this juncture to commit funding for major new rail transit projects before we have some idea of the extent of transit ridership in the first several years after nationwide vaccinations.



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PUBLIC TRANSPORTATION MUST CHANGE AFTER COVID-19

by Steven E. Polzin, Ph.D.
Project Director: Baruch Feigenbaum

March 2021



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PART 1

INTRODUCTION

COVID-19 will be remembered as a historic and transformational event impacting the human condition across the globe. Its consequences, direct and indirect, are likely to play out over many years as the human costs impact families, loved ones, and the economy, inclusive of dramatic additional government debt. COVID-19 has produced changes in behavior of individuals, businesses, and governments. Some share of these changes, initially in response to COVID-19, are now expected to remain long after COVID-19 has diminished as an overwhelming public health threat.

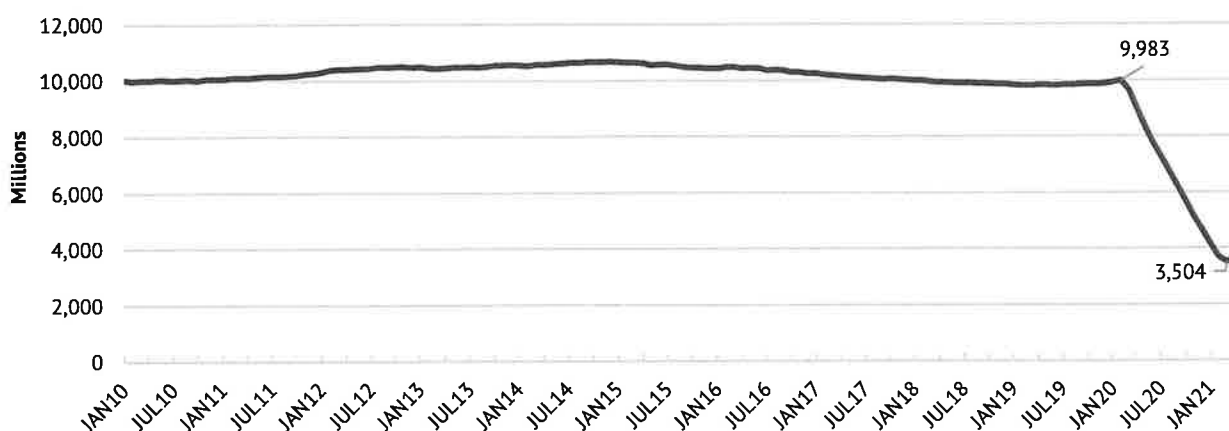
Public transportation is among those sectors disrupted by COVID-19 and unlikely to return to pre-COVID-19 conditions. The initial plummeting of ridership was associated with the shutdown of activities and due to exposure fears when using travel options that do not allow isolation or sufficient social distancing. The dramatic ridership reductions persisted as shutdowns were discontinued. Individuals who had to rely on public transportation returned but many others did not. Most public transportation trips remained lost as communication substituted for travel or commuters shifted to alternative modes, including newly acquired automobiles, that reduced exposure risk.

These ridership losses persist with unprecedented consequences. Extrapolating ridership trends from the National Transit Database through April 2021, which captures the first full year of COVID-19-impacted ridership, results in 12-month levels approximately 65% below

the 12-month period prior to the start of COVID-19. For the corresponding period, service levels are extrapolated to track approximately 23% below pre-COVID-19 levels.

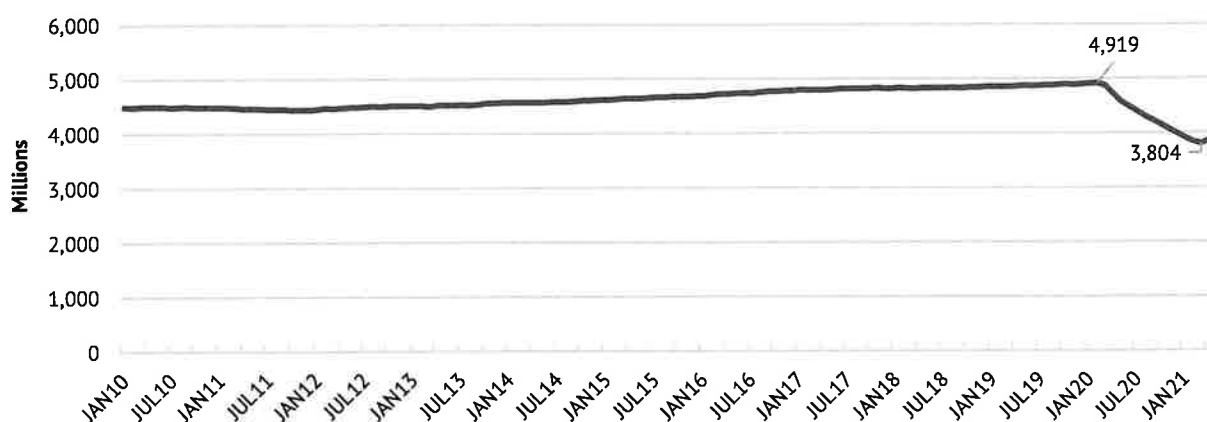
While national data on spending and fare revenues for this period will not be available for months, Figure 1 shows the ridership trend since 2010 and Figure 2 shows the trend in revenue-miles of transit service. After March 2021, the rolling 12-month annual ridership should trend positive with the increase dependent on the pace of recovery in mitigating COVID-19 and the extent to which travelers return to transit.

FIGURE 1: ANNUAL UNLINKED TRANSIT RIDERSHIP (ROLLING 12-MONTH TOTALS)



Source: National Transit Database, <https://www.transit.dot.gov/ntd/data-product/monthly-module-raw-data-release>. Trend extrapolated through April 2021 to estimate a full year of COVID impacts.

FIGURE 2: ANNUAL REVENUE VEHICLE-MILES OF SERVICE (ROLLING 12-MONTH TOTALS)



Source: National Transit Database, <https://www.transit.dot.gov/ntd/data-product/monthly-module-raw-data-release>. Trend extrapolated through April 2021 to estimate a full year of COVID impacts.

PART 2

FUNDING TRANSIT POST-COVID

2.1 EXPECTATIONS GIVEN CURRENT POLICIES

The financial implications of the graphed trends are highly dependent on the specific operating context. While fare revenues should generally track ridership, some transit agencies dropped fare collections to minimize risk, and the trip length distribution and fare category distribution (likely more travelers with discount fares) are likely to result in fares underperforming ridership levels. Similarly, operating costs are not likely tracking with the reductions in service levels as fixed operating costs and enhanced cleaning investments, and desires to sustain workforce compensation are likely to limit cost savings from lower service levels. These trends should be evaluated with financial data to determine the actual financial need of the industry.

BUTTIGIEG: TALKS ONGOING ON ADDITIONAL U.S. TRANSPORTATION SECTOR ASSISTANCE

President Joe Biden's \$1.9 trillion proposal includes only \$20 billion for public transit systems. Buttigieg referred to Biden's \$20 billion transit proposal as the "initial conversations but those conversations are ongoing because we do want to make sure we're supporting a robust return for the sector and supporting workers."

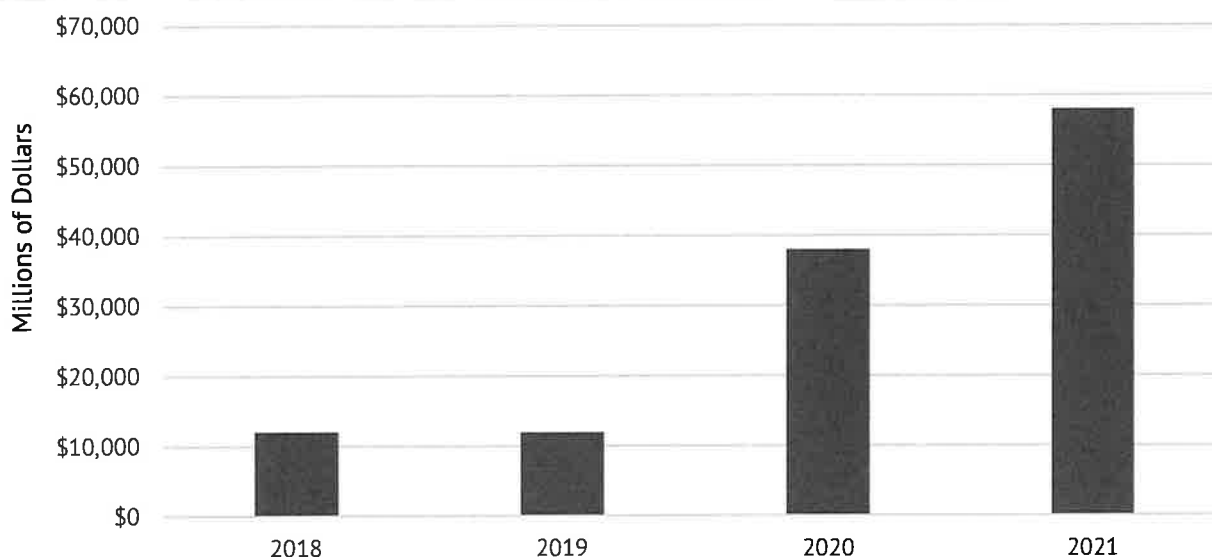
—By David Shepardson, *Reuters*, February 5, 2021

Similarly, the financial health of the transit industry depends on the subsidy revenue streams that support operations. These include income, sales and property taxes, and occasionally revenue streams from other fees or general revenue sources at the local, regional, and state levels. Each of these sources is impacted differently depending on the specific revenue collection structure and economic conditions in the community. Property tax revenues, for example, are modestly if at all impacted by COVID-19 and many have risen.¹ Sales tax revenues are affected by retail activity but are expected to recapture some of the forgone revenues as postponed purchases of things like vehicles and travel potentially surge in a recovery period.²

Figure 3 shows the trend of federal funding going to public transportation inclusive of the American Rescue Plan that passed with a \$30.5 billion commitment to public transportation. The original American Rescue Act proposal from the Biden administration included \$20 billion for transit. The House raised it to \$30 billion, then the Senate raised it to \$30.5 billion. This is on top of the \$15 billion in transit funding provided in the December COVID-19 Emergency Relief Act of 2020 and in addition to the \$25 billion in CARES Act relief funding and the regular annual appropriation through the Federal Transit Administration. The national-level financial portrait of the public transportation industry is shown in Table 1.

¹ Jared Walczak, *New Census Data Shows States Beat Revenue Expectations in FY 2020*, Tax Foundation, September 18, 2020, <https://taxfoundation.org/state-tax-revenues-beat-expecations-fy-2020/>

² Ibid.

FIGURE 3: POSSIBLE FEDERAL COMMITMENTS TO PUBLIC TRANSPORTATION, 2018-2021 (ASSUMING AMERICAN RESCUE ACT FUNDING)**TABLE 1: PUBLIC TRANSIT REVENUES IMPACTED BY COVID-19 (DOLLAR AMOUNTS IN MILLIONS)**

REVENUES		2018	2019	2020	2021	Adjustment for 2020	Adjustment for 2021
Fares		\$15,891	\$16,070	\$4,017	\$5,624	-75%	-65%
Other Generated Revenue Excluding Fares		\$5,365	\$5,709	\$2,855	\$2,855	-50%	-50%
Local Funds		\$24,987	\$27,055	\$22,997	\$24,349	-15%	-10%
State Funds		\$15,039	\$18,046	\$15,339	\$16,242	-15%	-10%
Federal Funds Available	FAST Act	\$12,032	\$11,893	\$12,950	\$13,000		
	CARES			\$25,000			
	COVID-19 Emergency Relief Act of 2020				\$15,000		
	American Rescue Act				\$30,000		
Total Revenues		\$73,313	\$78,773	\$83,158	\$107,070		
Share from Federal Funds		16.4%	15.1%	45.6%	54.2%		
EXPENDITURES							
Operating Expenditures		\$51,764	\$54,360	\$46,206	\$46,206	-15%	-15%
Capital Expenditures		\$21,549	\$24,413	?	?		

Sources: Data from NTD, National Transit Summaries and Trends, Table Series TS1.1, Time series data.

<https://www.transit.dot.gov/ntd/data-product/2019-time-series>

Notes: Data for mixed Fiscal Years across agencies. Numbers in red are estimates. Estimated revenues informed by "How much is COVID-19 hurting state and local revenues?" Brookings, Louise Sheiner and Sophia Campbell, Thursday, September 24, 2020. <https://www.brookings.edu/blog/up-front/2020/09/24/how-much-is-covid-19-hurting-state-and-local-revenues/>. Fare revenue estimates informed by service-level estimates and professional judgement.

Pre-COVID public transportation was approximately a \$75 billion annual industry with about two-thirds of the funding supporting operations and the remainder supporting capital. Federal investment provided approximately 15% of total annual revenues. COVID-impacted numbers will not be finalized for months, thus rough estimates are shown in Table 1 to characterize relative trends. With the American Rescue Act, the federal share of resources obligated to public transportation in 2020 and 2021 is likely to approach 50%, perhaps more, depending on the actual levels of spending in 2020 and 2021 and the level of local subsidy resources collected and/or committed to transit. The year of commitment is not necessarily the year of expenditure, thus actual financial impacts may vary at the national and at the local level.

TRIMET'S STRUGGLING COMMUTER RAIL LINE SEES COST-PER-PASSENGER RISE TO NEARLY \$108

TriMet's Westside Express Service, known as WES, was already headed in the wrong direction with rising costs and declining ridership. The pandemic has made the commuter rail line's struggles even more pronounced.

Ridership on WES was down nearly 75% in December 2020 compared to the same month in 2019, according to the most recent data available.

At the current rate, it costs TriMet nearly \$108 per passenger to operate the metro area's only commuter rail line.

—KGW.com, "WES commuter rail is costing TriMet \$108 per passenger," February 3, 2021.

2.2

RELEVANT FUNDING CONCERNS FOR POLICYMAKERS

The following observations are relevant to the policy considerations that surround the future of public transportation and the federal financial role.

- The \$40 billion incremental level of federal transit funding in CARES and the COVID-19 Emergency Relief Act of 2020 are equivalent to about 32 months of typical transit fare revenues. Even with diminished fare revenues, new federal resources before the American Rescue Plan are sufficient to offset three or more

years of lost fare revenues for the industry. As the distribution of these funds was not based on lost fare revenues, the above conditions do not apply to all agencies.

- As supplemental resources provided to transit agencies do not require a match or a maintenance of effort from other revenue sources, they can and are being used to offset shortages in or diversions of other funding sources.³
- The consequences of these federal resources vary dramatically across agencies. For agencies highly dependent on fare revenues, the CARES allocation may not have fully offset fare revenue losses for the duration of COVID-19. For agencies with relatively low fare box recovery and stable dedicated local revenues, for example property taxes, CARES revenues created a windfall.
- The initiation of supplemental federal support during the critical stage of the COVID-19 crisis was understandably rushed and not fine-tuned to provide a policy-driven distribution of supplemental federal resources. However, having provided very generous federal resources to mitigate the immediate crisis, additional funding should be driven by careful analysis of the financial condition of agencies and discernment of a sound, policy-driven program of support.
- Reauthorization of national surface transportation legislation, scheduled before fiscal 2022, provides an additional opportunity to reconsider industry needs and the federal role. Similarly, the prospect of an infrastructure funding bill also provides an opportunity to address transit industry resource needs. All future legislative actions should be informed by a more comprehensive review of the financial impacts and roles of the public transportation stakeholders.
- Potential negative consequences of the current actions include a diminishment of local and state resource commitments to public transportation and a temptation by agencies to ramp up transit spending irrespective of the travel demand that currently exists or is likely to occur post-COVID-19. The extraordinary level of federal funding also creates the prospect of a financial crisis as the federal funding levels retract to financially sustainable levels.
- The commitment of \$40 billion and then an additional \$30.5 billion in new resources for public transit without proportional commitments to support COVID-19 financial impacts on roadway investments, when roadways support all commercial and freight roadway travel and serve about 70 times more person-miles of travel

³ "Coronavirus Aid, Relief, and Economic Security (CARES) Act," Federal Transit Administration, 19 Feb. 2021. <https://www.transit.dot.gov/cares-act> (26 Feb 2021).

than public transportation, raises issues of equity across geography and market segments.

As Table 1 shows, it is very probable that the total resources available to transit agencies in 2021 will exceed levels that would have existed had COVID-19 not occurred. While these resources are not required to be expended in 2021, it raises questions regarding the rush to provide supplemental resources absent a fuller understanding of the financial needs and an explicit consideration of the federal funding role as a backstop for all potential revenue shortages or diversions.

As the COVID-19 pandemic extends beyond one year, analysts are increasingly aware that the post-COVID-19 world will not be a return to the pre-COVID-19 normal. The best means of accomplishing the goals that public transportation has historically addressed merits a high level of attention. The biggest problem associated with supplemental federal funding that exceeds five years of typical federal appropriations to the Federal Transit Administration is the failure to think strategically. Providing public transportation during recovery and in a post-COVID-19 world should be based on assessing the specific role and mechanism of specific systems and right-sizing the subsidies.

For instance, in 2020 and 2021 the federal government is likely to have committed approximately \$10 per transit boarding, on average. Since approximately half of trips that use transit require a transfer (for example switching trains at Metro Center in Washington, D.C.), the average one-way transit trip could be receiving \$15 in federal subsidy.⁴ But resources are precious and priorities abound, and deficit spending has significant future consequences that burden future generations and raise important equity issues. It is imperative to rethink the future of public transportation.

⁴ American Public Transportation Association, *Who Rides Public Transportation*, (Washington DC: American Public Transportation Association, 2017), 5.

PART 3

TRANSIT TRENDS FOR CONSIDERATION

3.1

PRE-COVID TRANSIT USE DECLINE DUE TO AUTO USE

Pre-COVID-19, public transportation had just stabilized after a five-year decline in ridership nationally despite a robust economy, record numbers of workers, and expanding levels of service.

A careful review of the future of public transportation is justified due to more than just the impact of COVID-19. Pre-COVID-19, public transportation had just stabilized after a five-year decline in ridership nationally despite a robust economy, record numbers of workers, and expanding levels of service. The contributing factors were numerous, including expanded auto availability spurred by low gas prices, low used car prices and financing, and expanded licensure opportunities in several states for undocumented immigrants. Increased telecommuting and other communication substitution rose substantially, with

telecommuting passing public transportation as a share of regular commuters, reaching 5.7% in 2019.⁵

Transportation network companies such as Uber and Lyft were capturing some trips from public transportation as were e-scooters and bikeshare. Demographic trends were similarly unfavorable as population growth flourished in less-urban areas with modest public transportation while strong public transportation markets, typically in dense, urban areas such as Chicago, saw population declines. The large millennial generation was aging out of the traditional strong transit use age groups of young adults. Low income, often public transit-dependent populations (persons who because of financial, health, legal or other reasons are not able to avail themselves of personal vehicle travel and often rely on public transit) were being dispersed with new public housing policies and regentrification of urban core communities that often had good transit services. System condition, service reliability, homelessness, and urban crime were deterring riders in some communities.

If these conditions were not challenging enough, the public transportation industry is facing the prospect of future competition from automated vehicle services as alternative travel choices. While the timing of the availability of such services remains speculative, it appears to be well within the timeframes of the major transit capital projects being constructed and planned in communities. The expectation of electrification of personal vehicles in the future will further undermine the already weak environmental motivations for supporting and using public transportation.

Beyond these preexisting challenges for public transit, COVID-19 introduced new challenges and increased the significance of other challenges for public transit ridership. COVID-19 is accelerating demographic trends unfavorable to public transportation. Lower density, more-dispersed housing is seeing unprecedented demand with population movements both to suburbs and to smaller communities or communities with lower density.⁶ Other activity patterns also appear to be shifting as traditional retail and office buildings may be destined for changes in use levels and perhaps purposes. To the extent that central business districts or other information office worker concentrations have fewer

⁵ "U.S. Census, Selected Population Profile in the U.S., 2019 Table S0201, Commuting to Work," U.S. Census Bureau, *census.gov*, <https://data.census.gov/cedsci/table?id=ACS 1-Year Estimates Selected Population Profiles&tid=ACSSPP1Y2019.S0201&hidePreview=false>, (23, February 2021).

⁶ Wendell Cox, "Latest Data Shows Pre-Pandemic Suburban/Exurban Population Gains," *New Geography*, December 17, 2020, <http://www.newgeography.com/content/006882-latest-data-shows-pre-pandemic-suburbanexurban-population-gains>

employees due to increased working-at-home, the supporting activity levels such as restaurants, convenience retail, and services may see diminished demand as well.

COVID-19 has also been credited with increasing auto ownership as anecdotal reports indicate that after shutdowns started to end some individuals purchased autos to allow them to avoid exposure while traveling on shared use modes like public transit and air travel. These changes may result in permanent changes in modal travel demand as new behaviors are retained. Understanding the extent of this change will be revealed as new data are assembled over the next many months.

The expectation of continued growth in substitution of communications for travel existed pre-COVID-19. However, the COVID-19 experience dramatically accelerated its adoption. The significance of this phenomenon in many ways dwarfs the impact of other factors.

3.2

DECLINING TRANSIT USE DUE TO SHIFT TO WORKING-AT-HOME

While the verdict is out regarding how much communications will continue to substitute for travel as public health exposure risks fade from importance, there is a growing consensus that many of the communication substitutions for travel will continue. This will take the form of meaningfully larger work-at-home levels than existed pre-COVID-19, continued use of e-commerce in lieu of travel for some retail, and continued levels of conducting a myriad of personal business, social, and educational activities via online communications.

Education, health care visits, worship participation, and business transactions such as renewing licenses and executing financial contracts are among the activities that will no longer produce trips to the extent they did pre-COVID-19. This will reduce the demand for public transit and lessen roadway congestion and parking challenges—factors that could weigh into mode choice decisions. The market profile of transit riders is likely to skew downward as higher income information workers are likely to be able to telecommute in even greater numbers than before and not commute by transit. Transit may also decline with post-COVID-19 hybrid commuting behavior, with in-office work one or two days per week with work-at-home the remainder. Tuesdays, Wednesdays, and Thursdays could require relatively strong peak service levels with very soft demand on Mondays and Fridays, conditions that may make it harder to justify peak capacity capital investments and complicate service scheduling or operating productivity.

RISE IN TELECOMMUTING CAUSES BIG HEADACHE FOR MEGACITIES WITH BIG TRANSIT SUBSIDIES

“The most important outcome of the pandemic wasn’t that it taught *you* how to use Zoom, but rather that it forced *everybody else* to use Zoom,” Autor told me. “We all leapfrogged over the coordination problem at the exact same time.” Meetings, business lunches, work trips—all these things will still happen in the after world. But nobody will forget the lesson we were all just forced to learn: Telecommunications doesn’t have to be the perfect substitute for in-person meetings, as long as it’s mostly good enough. For the most part, remote work just works.

—Derek Thompson, *The Atlantic*, February 1, 2021

“Salesforce says ‘the 9-to-5 workday is dead’ and will provide 3 new ways for employees to work—including the possibility of working from home forever...”

—Avery Hartmans, *Insider*, February 9, 2021

Public transportation is uniquely sensitive to these changes. If work-at-home doubles from a pre-COVID-19 level of 5.7% (this includes those who are employed and work at home as well as those that have home-based businesses) to 12%, it could mean a 15%-20% decline in central business worker numbers. Information jobs particularly conducive to work-at-home tend to be concentrated in central business district locations that are among the primary geographic targets of public transportation services, often serving as the hub of transit systems. These are the jobs most likely to be diverted to work-at-home or to shift to dispersed employment centers outside the urban core.⁷

⁷ New Home Trends Institute. *September Trends Report, Work-From-Home, Part 1*. 2020. https://www.realestateconsulting.com/wp-content/uploads/2020/11/NHTI_Trends-Report_2020-09_Updated.pdf and Lund, Susan, et. al. *The Future of Work after COVID-19*. McKinsey Global Institute. 2021. <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19>

3.3

TRANSIT DECLINE BY SUBMODES

Among the most significant phenomenon resulting from COVID-19 is the disparate impact on transit use across the transit submodes.⁸ National Transit Database data from recent months indicate that the decline in ridership is greatest among the modes most used for workforce commuting, particularly the transit services targeting choice commuters to central business districts. Commuter rail, for example, has high numbers of travelers who have jobs that are conducive to work-at-home and are in a financial position to use alternative modes when they do travel. Ridership declines in that submode are far greater than for urban bus services.

PHILADELPHIA'S SEPTA INTENDS TO SPEND \$40M IN FEDERAL COVID-19 RELIEF ON PROPOSED KING OF PRUSSIA RAIL LINE

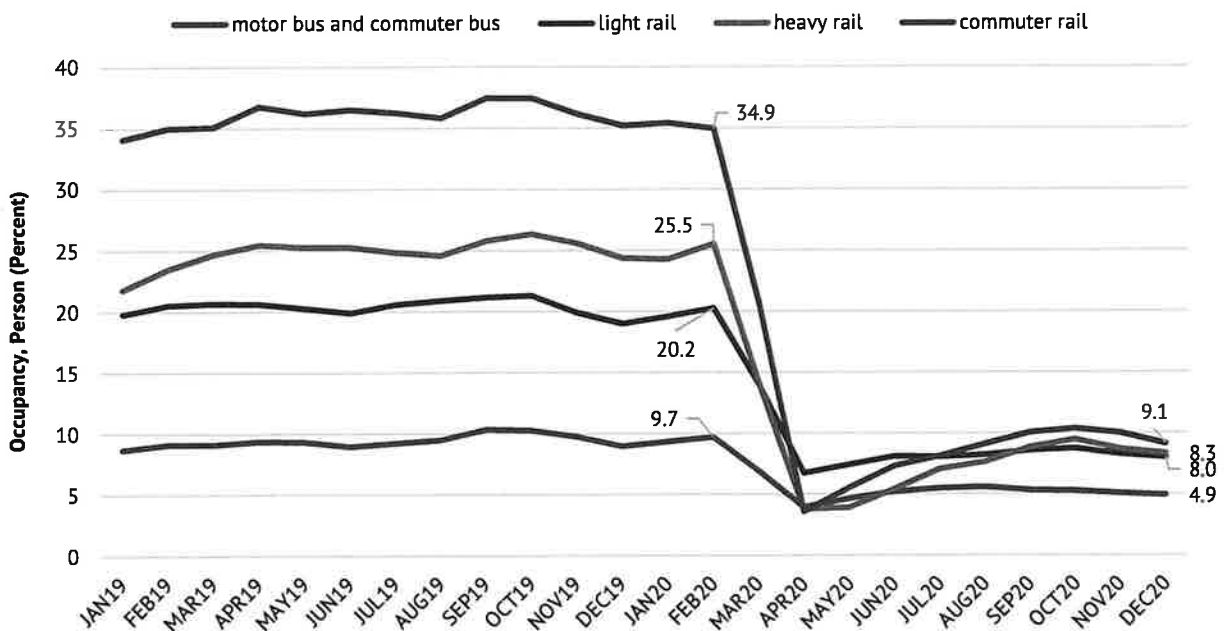
SEPTA is proposing to spend about \$40 million in federal economic relief funds, mostly earmarked to help transit agencies operate buses and trains during the pandemic, on design and engineering work to advance the King of Prussia rail project.

Some Philadelphia transit advocates express worry that the budgetary move will make it harder to maintain levels of service needed to prevent overcrowding on city buses, potentially endangering passengers and operators.

—Thomas Fitzgerald, *The Philadelphia Inquirer*, February 23, 2021

One of the consequences of soft public transit demand is that it undermines attainment of a key purported benefit of public transportation: being an environmentally efficient means of moving people. While public transportation certainly has that potential, as Figures 4 and 5 portray, context matters and historic conditions or theoretical potential are not necessarily indicative of actual future performance. Figure 4 shows the change in occupancies of the various submodes as a result of the ridership and service changes attributed to COVID-19.

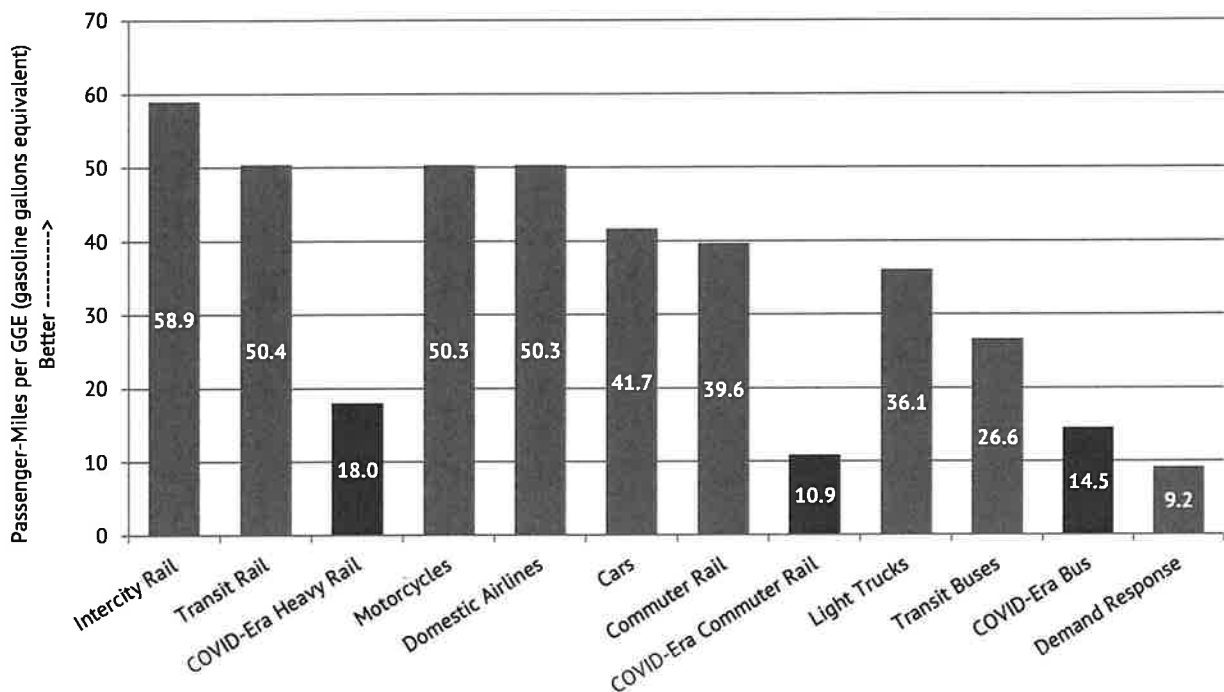
⁸ Polzin, Steven and Tony Choi. *COVID-19's Effects on The Future of Transportation*. US Department of Transportation. Washington, D.C.2021. <https://rosap.nhtl.bts.gov/view/dot/54292>

FIGURE 4: ESTIMATED VEHICLE OCCUPANCIES FOR MAJOR TRANSIT SUBMODES

Source: Occupancy is Passenger Miles per Revenue Service Mile. Date from NTD, <https://www.transit.dot.gov/ntd/data-product/monthly-module-raw-data-release>. Passenger-miles based on ridership and 2019 average trip length by mode.

While the industry does not, and should not, expect these same conditions to apply as the COVID-19 virus subsides, the accumulated evidence suggests that the already disappointing pre-COVID-19 transit vehicle average occupancy levels are not likely to be attained going forward, particularly if service levels are not adjusted to demand.

Figure 5 reveals the energy use per passenger-mile of travel in “gasoline gallons equivalent” for various modes of travel. The greater the number of passenger-miles per gallon equals a more energy-efficient mode. The blue bars indicate the most recent available data from the Department of Energy reflective of pre-COVID-19 real-world operating conditions. Public transportation modes were not performing particularly well with respect to passenger-miles per gasoline gallon equivalent even prior to COVID-19. The red bars represent the comparative performance in late 2020 given the lower vehicle occupancies due to the influence of COVID-19. Even with the referenced reduced service levels, the low occupancies result in very energy-inefficient service.

FIGURE 5: AVERAGE PER-PASSENGER FUEL ECONOMY BY TRAVEL MODE

Source: U.S. Department of Energy Alternative Fuels Data Center supplemented with estimated occupancies during the first full year of COVID

Not surprisingly, public transportation is a resource-inefficient means of moving people when subject to the ridership demand levels and social distancing phenomenon associated with COVID-19. If service levels are not adjusted to post-COVID-19 demand, energy efficiency performance is likely to be well below the pre-COVID-19 levels. The energy efficiency arguments for public transportation will no longer be valid absent an unanticipated surge in demand and productivity for public transportation. The competitive pressures on public transportation's environmental performance will be further increased as personal vehicles move toward greater efficiency and electrification. This challenge should provide additional evidence of the need to seriously rethink the full spectrum of objectives and mechanisms for delivering public transportation services and meeting mobility needs.

PART 4

POST-COVID-19 PUBLIC TRANSIT

Many public transportation stakeholders have recognized the critical challenges that face public transportation in a post-COVID-19 era. Agencies are planning various scenarios, stakeholders are exploring strategies for the future, and analysts are watching the data to discern emerging trends. But not all stakeholders have grasped the significance of the challenges facing public transportation and many have focused attention on asking for federal resources to “carry them through” the impacts of COVID-19, while others are busy redefining the performance metrics and expectations of public transportation to justify unconditional federal funding. References to the tiny share requested for public transportation of huge stimulus bills are frequently part of the rationalization of unconstrained funding requests. The hypersensitive political environment is being leveraged with emotionally charged terms like equity, accessibility, and essential workers to champion advocacy for unprecedented levels of federal funding and an unplanned, ad hoc, unaccountable shift in the financial decision-making for public transportation.

POST-COVID, TRANSIT AGENCIES MUST LOOK BEYOND RIDERSHIP

With commuters grounded and passenger numbers likely to remain low in U.S. cities, public transportation leaders should focus on a different metric for usefulness: transit access.

—David Zipper, Bloomberg CityLab, February 16, 2021

PART 5

CONCLUSION

Transportation has been dramatically changing even before COVID-19 appeared on the scene. The COVID pandemic has accelerated the pace of change and when, hopefully, the pandemic fades as a critical factor in travel behavior, then demographic, economic, and particularly technological changes are likely to leave us in a far more dynamic travel behavior environment than has persisted for the past three-quarters of a century. We have historically been content to use 30-year planning horizons for transit capital investment planning that were driven by often 10-year-old travel behavior models and data and relatively stable presumptions with respect to travel choices, capital and operating cost trends, propulsion system efficiency, and the spectrum of travel choices with which transit competes. Continued reliance on dated planning methods and pre COVID-19 data is fraught with risks as we plan the future.

The absence of easy solutions to the challenges facing public transportation—or the fact that these solutions may not be satisfying to all stakeholders—is not an excuse for policymakers to ignore the magnitude of the challenges facing public transportation. The core goals of public transportation—providing mobility particularly for those without alternative means and capturing the economy of mass movement of people in markets where those conditions exist—remain important and widely held goals for transportation. Planners and policymakers must explore the full range of methods of accomplishing these objectives without preconceived commitments to status quo plans and strategies. Under-used transit vehicles do not fight climate change and exorbitantly expensive transit trips

are not a prudent way to spend public resources when the magnitude of needs for transportation, housing, health care, education, and infrastructure are so large.

Good intentions are not necessarily good policy. If there were ever a time to be careful, deliberative, and fact-driven regarding the future of public transportation, now is that time.

ABOUT THE AUTHOR

Steven E. Polzin, PhD, worked for transit agencies in Northern Illinois, Cleveland, and Dallas. He subsequently researched and taught transportation at the University of South Florida, including extensive research on public transportation and travel behavior. He served for 13 years as a member of the Board of Directors for the Hillsborough Area Regional Transit Authority and seven years as a Board Member for the Hillsborough Metropolitan Planning Organization. He recently completed an appointment as a Senior Advisor for Research and Technology at USDOT.