



METROPLAN ORLANDO BOARD MEETING AGENDA

DATE: Wednesday, July 27, 2022

TIME: 9:00 a.m.

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

Wireless access available

Network = MpoGuest

Password = mpoaccess

Parking Garage: 25 W. South Street

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

<https://us02web.zoom.us/j/88698253086?pwd=dWxtMEEvMWtRMVh2dUo5aTZNaFZmdz09>

Passcode: 446703

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

[MetroPlan Orlando Board](#)

COVID-19 Health & Safety Message

The MetroPlan Orlando offices, in response to the COVID-19 pandemic, are following guidelines for group gatherings by limiting physical 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. Virtual attendees can still make public comments (see public comment sections of this agenda for details).

MetroPlan Orlando offers tips for virtual meeting participation on our website:

- [How to get technically set up for the virtual meeting](#)
- [About virtual meetings - MetroPlanOrlando.org/VirtualMeetings](#)

Thank you for silencing your cell phones during the meeting.

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|--|-------------------------------|
| I. CALL TO ORDER AND PLEDGE OF ALLEGIANCE (Boardroom) | Chairwoman Uribe |
| II. CHAIR'S ANNOUNCEMENTS | Chairwoman Uribe |
| III. EXECUTIVE DIRECTOR'S ANNOUNCEMENTS | Mr. Gary Huttman |
| IV. FDOT REPORT | Mr. John Tyler |
| V. 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 | Mr. Jeffrey Campbell |
| Technical Advisory Committee | Ms. Lee Pulham |
| Transportation Systems Management & Operations Committee | Mr. Ramon Senorans |

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 provided to board members. Anyone attending virtually or in-person and wishing to speak during the meeting should complete an [electronic speaker card](#). Each speaker has two *minutes* to address the board. The Chairperson will first recognize online attendees. Speakers should use the Raise Hand feature on the Zoom platform, and you will then be invited to unmute your microphone to speak. In-person speakers will be called next. Each speaker should state his/her name and address for the record. People wishing to speak on other items will be acknowledged in the same way, under Agenda Item XIII.

IX. CONSENT AGENDA (Tab 1)

- A. Minutes from June 8, 2022 Board meeting – page #5
- B. Approval of Contract Awards for Signal Retiming Contract (Jason) – page #11
- C. Approval of Financial Report for May 2022 - page #12
- D. Approval to Extend Sole Source Contract with the University of Florida for Maintenance of the Web-based Crash Database – page #15

X. OTHER ACTION ITEMS -

- A. Approval of the FY 2022/23 – FY 2026/27 TIP (Roll Call Vote) (Tab 2)
Mr. Keith Caskey, MetroPlan Orlando Staff
The FDOT highway, Turnpike, Traffic Operations and Safety, bicycle and pedestrian, transit and commuter rail sections of the new TIP can be reviewed at the following link:
<https://metroplanorlando.org/wp-content/uploads/TIP-2327-Draft-P.pdf>
- B. Approval of the FY 2027/28 – FY 2034/35 Prioritized Project List (Tab 3)
Mr. Alex Trauger, MetroPlan Orlando Staff
A draft prioritized list of federal/state transportation projects can be reviewed using the following link:
https://metroplanorlando.org/wp-content/uploads/MetroPlanOrlando_PPL_FY2026-2035_v20220713.pdf

XI. INFORMATION ITEMS FOR ACKNOWLEDGEMENT (Action Item) (Tab 4)

- A. Executive Director's Report – page #83
- B. FDOT Monthly Construction Status Report May & June 2022 – page #85
- C. PD&E Tracking Report – page #94
- D. Air Quality Report – page #95
- E. Bicycle Pedestrian Report – page #97
- F. Turnpike Widening Fact Sheet – page #100
- G. Save-the-Date Statewide Mobility Week Flyer – page #101
- H. Memo from Mr. Huttman to Board – page #102
- I. Dangerous by Design Report – page #103

XII. OTHER BUSINESS/PRESENTATIONS

- A. Target Speeds Initiative - Ms. Loreen Bobo, P.E, FDOT
- B. Status Report of the FDOT Truck Parking PD&E - Mr. Steven Buck, FDOT

XIII. PUBLIC COMMENTS (GENERAL)

Comments from the public, of a general nature, will be heard during this comment period. Each speaker has *two minutes* to address the board. Public comments submitted in advance of the meeting by email to Comment@MetroPlanOrlando.org will be provided to board members. People wishing to speak virtually or in-person during the 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. In-person speakers will be called next. Each speaker should state his/her name and address for the record.

XIV. BOARD MEMBER COMMENTS

Commissioner Uribe

XV. NEXT MEETING: Wednesday, September 14, 2022

XVI. 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, June 8, 2022
TIME: 9:00 a.m.
LOCATION: MetroPlan Orlando
Park Building
250 S. Orange Ave, Suite 200
Orlando, FL 32801

Commissioner Mayra Uribe, Board Chair, Presided

Members in attendance were:

Hon. Pat Bates, City of Altamonte Springs
Hon. Lee Constantine, Central Florida Expressway Authority
Hon. Bob Dallari, Seminole County
Hon. Jerry L. Demings, Orange County
Hon. Buddy Dyer, City of Orlando
Hon. Rebecca Wilson for Maribel Gomez Cordero, Orange County
Hon. Cheryl Grieb, Osceola County
Hon. Jim Fisher, City of Kissimmee
Mr. M. Carson Good, GOAA
Mr. Tom Green, Sanford Airport Authority
Hon. Viviana Janer, LYNX/Central Florida Commuter Rail Commission
Hon. Christine Moore, Orange County
Hon. Bryan Nelson, City of Apopka
Hon. Tony Ortiz, City of Orlando
Hon. Victoria Siplin, Orange County
Hon Keith Trace, Municipal Advisory Committee

MetroPlan Orlando
Board Minutes June 8, 2022
Page 1

Hon. Mayra Uribe, Orange County
Hon. Art Woodruff, City of Sanford
Hon. Jay Zembower, Seminole County

Members attending the meeting via the Zoom Platform:

Hon. Emily Bonilla, Orange County

Advisors in Attendance

Mr. Jack Adkins for Secretary John Tyler, FDOT District 5
Mr. Shaun Germolus, Kissimmee Gateway Airport
Dr. Dan Stephens for Jeffrey Campbell, Community Advisory Committee
Mr. Ramon Senorans, Transportation Systems Management & Operations Committee
Mr. Bill Wharton for Ms. Lee Pulham, Technical Advisory Committee

Members/Advisors not in Attendance:

Others in Attendance :

Commissioner Olga Castano, City of Kissimmee
Dr. Haofei Yu, University of Central Florida
Mr. Ryan Matthews, GrayRobinson
Ms. Anna Taylor, FDOT
Ms. Kellie Smith, FDOT
Ms. Rakinya Hinson, FDOT
Mr. Jeremy Dilmore, FDOT
Ms. Carol Scott, Florida's Turnpike Enterprise
Mr. James Boyle, LYNX
Mr. Greg Moore, Brightline
Mr. Bob O'Malley, Railroad Consultants
Mr. Frank Caruso, KCG
Mr. Jeff Piggrem, MetroPlan Orlando CAC Member

Staff in Attendance :

Mr. Gary Huttman
Mr. Jay Small, Mateer & Harbert
Mr. Jason Loschiavo
Ms. Virginia Whittington
Mr. Nick Lepp
Mr. Alex Trauger
Mr. Keith Caskey
Mr. Eric Hill
Ms. Cynthia Lambert
Ms. Mary Ann Horne
Ms. Lisa Smith
Ms. Cathy Goldfarb

I. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Chair Uribe called the meeting to order at 9:00 a.m. and welcomed everyone. Commissioner Viviana Janer, Osceola County, led the Pledge of Allegiance.

II. CHAIR'S ANNOUNCEMENTS

Chair Uribe welcomed new Board member, Mr. Shaun Germolus, Kissimmee Gateway Airport, and recognized City of Kissimmee Commissioner Olga Castano in the audience, Alternate to Commissioner Jim Fisher. Mayor Bates reported on the May 12th TDLCB meeting. Chair Uribe acknowledged Commissioner Emily Bonilla who participated remotely.

III. EXECUTIVE DIRECTOR'S ANNOUNCEMENTS

Mr. Huttman acknowledged alternates in attendance: Commissioner Wilson, Orange County, Mr. Jack Adkins representing District 5 Secretary John Tyler, Dr. Dan Stephens representing CAC Chair Mr. Jeffrey Campbell, and Mr. Bill Wharton representing TAC Chair Ms. Lee Pulham. He recognized special guest, City of Kissimmee Commissioner Olga Castano, and introduced the new LYNX Director of Planning, Mr. James Boyle. He congratulated Brightline for their successful application and award of the CRISI grant. He announced that the NARC annual meeting would be held in Columbus, OH June 12-15; the Floridians for Better Transportation Summer Camp scheduled for July 6-8; and the Central Florida MPO Alliance joint meeting with the Sun Coast TPA on June 10th in Haines City, FL. He called attention to BFF enforcement efforts May 10-11 at various crosswalks in Orange, Osceola and Seminole counties. He recognized MetroPlan Orlando staff member Sarah Larsen for her work on the Health Strategic Plan. Mr. Huttman thanked the Board members who attended the OIA South Terminal Tour on May 26th. A short video highlighting the tour was shown. He reminded members of the July board meeting date change from July 13 to July 27. Mr. Huttman announced that Nick Lepp had accepted a position outside of the organization and as a part of the transition Alex Trauger will move into the Director of Transportation Planning position.

IV. FDOT REPORT

Mr. Adkins provided updates on the Wekiva Parkway Phases 6 and 7A, the Truck Parking Study, upcoming design/build efforts for I-4 Beyond the Ultimate projects (Sand Lake Road and the Daryl Carter Parkway interchanges). Mr. Adkins also announced that June 20th is designated as a day to promote motorcycle safety.

V. ROLL CALL AND CONFIRMATION OF QUORUM

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

VI. AGENDA REVIEW

Mr. Huttman noted there are no changes to the agenda.

VII. COMMITTEE REPORTS

Advisory Committee reports from the April and May meetings were presented by the Municipal Advisory Committee, Community Advisory Committee, TSMO, and Technical Advisory Committee chairpersons or their designated alternates.

VIII. PUBLIC COMMENTS ON ACTION ITEMS

None

IX. CONSENT AGENDA

- A. Minutes from May 11, 2022 Board meeting**
- B. Approval of Financial Report for April 2022**
- C. Approval of FY 2022 Year End Budget Amendment #5**

MOTION: Commissioner Janer moved approval of the information items for acknowledgement (Items A-C). Commissioner Grieb seconded the motion, which passed unanimously.

X. OTHER ACTION ITEMS - NONE

XI. INFORMATION ITEMS FOR ACKNOWLEDGEMENT (Action Item)

- A. Executive Director's Report**
- B. FDOT Monthly Construction Status Report, April 2022**
- C. Air Quality Report**
- D. Final Report Gray Robinson 2022 Legislative Session**
- E. Bipartisan Infrastructure Law Technical Assistance Guide**
- F. Memo from Mr. Huttman re: Response to comments/questions from May Board Meeting**

MOTION: Commissioner Siplin moved approval of the information items for acknowledgement (Items A-F). Commissioner Dallari seconded the motion, which passed unanimously.

XII. OTHER BUSINESS/PRESENTATIONS

- A. Preview of the Draft FY 2022/23 – FY 2026/27 TIP - Mr. Keith Caskey, MetroPlan Orlando staff - The FDOT highway, Turnpike, Traffic Operations and Safety, bicycle and pedestrian, transit and commuter rail sections of the new TIP can be reviewed at the following link: <https://metroplanorlando.org/wp-content/uploads/TIP-2023-2027-Preview.pdf>**

Mr. Caskey explained that the Draft TIP was being presented for review and that action will be taken at the June/July committee and Board meetings. He summarized the TIP and reviewed the projects with major changes; noted to Board members that he reorganized the TSMO projects, that those projects now fall under the Traffic Ops and Safety category. Mr. Caskey noted that toll road projects were not included as they are funded through a different source.

Mr. Caskey announced that the TIP public hearing is scheduled for Monday, June 20th at 11:30 a.m. on Zoom.

- B. Preview of the Draft FY 2027/28 – FY 2036/37 Prioritized Project List - Mr. Alex Trauger**
MetroPlan Orlando staff - A draft prioritized list of federal/state transportation projects can be reviewed using the following link: https://metroplanorlando.org/wp-content/uploads/MetroPlanOrlando_PPL_2026-2035_WebDraft20220513.pdf

Mr. Trauger reviewed the background information on the PPL, approach, considerations, funding programs, priority lists, and key priorities. He provided information on the project categories and funding sources, along with a look at next steps.

- C. Status of the 2023 Ozone Contingency Plan – Dr. Haofei Yu, University of Central Florida**

MetroPlan Orlando has partnered with the University of Central Florida to study how vehicle emissions impact the air quality in our region. The Ozone Contingency Plan explores how different scenarios may impact ozone levels and proposes strategies on mitigating emissions.

Dr. Haofei Yu of UCF gave a presentation on the plan, which will be completed in 2023. Dr. Yu provided background information on ozone pollution including levels that violate the Clean Air Act standards, history of the local tri-county ozone levels, and ozone formation. He reviewed the goals, tasks, method, and current progress of the contingency plan. Dr. Yu detailed the results for 2011 and 2017 including spatial and temporal distribution for Orange, Osceola, Seminole and Lake Counties. In addition, he covered the next steps in the study. Discussion ensued regarding other areas that might be close to violation, vehicles becoming more environmentally friendly, the effect of electric vehicles on ozone levels, and the use of 2017 data in the report as well as some errors that were found.

- D. Report on the 2022 Legislative Session and look ahead to 2023 - Mr. Ryan Matthews, Gray Robinson**

Mr. Ryan Matthews, Gray Robinson provided Board members with an update on the 2022 Legislative Session. Mr. Matthews explained that the 2022 legislative session had two special sessions and was met with some highly contentious social issues that took up much of the legislative session. He explained that the budget was not passed by the mandated deadline, which caused the session to be extended by three days. He provided an overview of the approved budget and how transportation initiatives will be impacted. He also commended Commissioner Uribe on her efforts during TD Day in Tallahassee noting that her visits with Central Florida delegation members helped get critically needed TD funding passed. Mr. Matthews discussed the bills that passed and did not pass. He noted that the 2023 session will begin in March. He added that this is an election year and new presiding officers will be elected. Mr. Matthews noted that there is the potential for another special session before the election. Discussion ensued regarding the value of visiting our delegation while they are in Tallahassee. The board directed staff to work with the legislative advocacy team to schedule a visit next year. Several board members expressed interest in participating.

XIII. PUBLIC COMMENTS (GENERAL)

Ms. Judy Peters, Mt. Dora resident, addressed the Board with concerns of congestion and speeding at the juncture of U.S. Highway 441/Old 441 just outside of the Tangerine Rural Settlement.

XIV. BOARD MEMBER COMMENTS

Mr. Greg Moore, Brightline, expressed excitement with being the recipient of the CRISI grant, and for being a part of the Sunshine Corridor Partnership. He explained that the grant funding will be used for project development approvals necessary to move the project forward. He noted that he is hopeful with Brightline being the recipient of this grant, and that may lead to being the recipient of a much larger award in the future.

Commissioners Dallari and Grieb thanked Ms. Carol Scott, Florida's Turnpike Enterprise, for her coordination efforts with the S.R. 417 widening project between Seminole County, Winter Springs, and Oviedo, and the access point for Kissimmee Park Road for Osceola County and St. Cloud, respectively.

XV. NEXT MEETING: Wednesday, July 27, 2022

XVI. ADJOURN BOARD MEETING

There being no further business, the meeting adjourned at 10:39 a.m. The meeting was transcribed by Ms. Lisa Smith. Approved this 27th day of July 2022.

Commissioner Mayra Uribe, 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.



Board Action Fact Sheet

Meeting Date: July 27, 2022

Agenda Item: IX.B. (Tab 1)

Roll Call Vote: No

Action Requested:

Approval is requested to award four contracts, pending contract negotiations, for a period of two years with an option to extend for an additional one-year period, with the following consultants to perform work related to the Traffic Signal Retiming Project. Funds are budgeted in FY 2023 and FY 2024 for this project.

1. Faller, Davis & Associates
2. Iteris
3. Metric Engineering
4. VHB

Should negotiations fail with any of the proposers listed, MetroPlan Orlando will adjust the amount of work as necessary for three or less retiming contracts.

Reason:

To continue traffic signal retiming studies in the MetroPlan Orlando Area

Summary/Key Information:

A Request for Proposals (RFP) was advertised in May 2022 and a selection committee consisting of five TSMO committee members met and ranked five proposals received and short-listed to four. A second meeting was held to make a recommendation that the four short-listed firms be awarded contracts.

MetroPlan Budget Impact:

Funds are included in the FY'23 and FY'24 budgets to cover this expense.

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

**METROPLAN ORLANDO
AGENCYWIDE
BALANCE SHEET
For Period Ending 05/31/22**

ASSETS

Operating Cash in Bank	\$	2,268,585.94
Petty Cash	\$	125.00
SBA Investment Account	\$	1,124,295.50
FL CLASS Investment Account	\$	1,178,842.67
Rent Deposit	\$	20,000.00
Prepaid Expenses	\$	29,479.82
Accounts Receivable - Grants	\$	444,283.38
Fixed Assets-Equipment	\$	829,650.32
Accumulated Depreciation	\$	(499,427.38)

TOTAL ASSETS:	\$	5,395,835.25
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LIABILITIES

Accrued Personal Leave	\$	412,550.13
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TOTAL LIABILITIES:	\$	412,550.13
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EQUITY

FUND BALANCE:

Nonspendable:

Prepaid Items	\$	29,479.82
Deposits	\$	20,000.00
Unassigned:	\$	4,933,805.30

TOTAL EQUITY:	\$	4,983,285.12
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TOTAL LIABILITIES & EQUITY:	\$	5,395,835.25
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Net difference to be reconciled:	\$	-
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METROPLAN ORLANDO
AGENCYWIDE REVENUES & EXPENDITURES
For Period Ending 05/31/22

REVENUES	Current	Y-T-D	Budget	Variance Un/(Ovr)	% OF BUDGET
Federal Revenue	\$ 253,387.02	4,549,375.44	\$ 6,621,078.00	2,071,702.56	68.71%
State Revenue	\$ 0.00	61,442.05	\$ 107,066.00	45,623.95	57.39%
Local Revenue	\$ 27,948.00	1,264,664.00	\$ 1,264,664.00	-	100.00%
Interest Income	\$ 1,557.31	4,569.29	\$ 5,000.00	430.71	91.39%
Other	\$ 714.77	14,962.15	\$ 12,500.00	(2,462.15)	119.70%
Contributions	\$ 0.00	25,000.00	\$ 25,000.00	-	100.00%
Cash Carryforward	\$ 0.00	0.00	\$ 242,850.00	242,850.00	0.00%
Local Funds Transfer	\$ 0.00	2,373.63	\$ 964.00	(1,409.63)	246.23%
TOTAL REVENUES:	\$ 283,607.10	\$ 5,922,386.56	\$ 8,279,122.00	\$ 2,356,735.44	71.53%

EXPENDITURES

Salaries	\$ 137,740.38	1,613,325.19	\$ 1,982,242.00	368,916.81	81.39%
Fringe Benefits	\$ 44,944.68	526,428.02	\$ 651,301.00	124,872.98	80.83%
Local Match-Transfer Out	\$ 0.00	2,373.63	\$ 964.00	(1,409.63)	246.23%
Audit Fees	\$ 0.00	22,000.00	\$ 33,500.00	11,500.00	65.67%
Computer Operations	\$ 4,375.51	68,214.46	\$ 91,416.00	23,201.54	74.62%
Dues & Memberships	\$ 3,246.00	11,445.76	\$ 20,867.00	9,421.24	54.85%
Equipment & Furniture	\$ 0.00	22,670.03	\$ 50,000.00	27,329.97	45.34%
Graphic Printing/Binding	\$ 0.00	6,762.00	\$ 26,920.00	20,158.00	25.12%
Insurance	\$ 1,727.84	28,853.23	\$ 29,023.00	169.77	99.42%
Legal Fees	\$ 530.00	11,504.30	\$ 34,951.00	23,446.70	32.92%
Office Supplies	\$ 1,863.54	9,928.35	\$ 19,500.00	9,571.65	50.91%
Postage	\$ 255.65	2,952.66	\$ 4,300.00	1,347.34	68.67%
Books, Subscrips/Pubs	\$ 0.00	6,160.63	\$ 8,716.00	2,555.37	70.68%
Exec. Dir 457 Def. Comp.	\$ 1,692.30	19,346.10	\$ 22,000.00	2,653.90	87.94%
Rent	\$ 27,143.78	282,566.35	\$ 283,060.00	493.65	99.83%
Equipment Rent/Maint.	\$ 998.28	21,857.10	\$ 30,186.00	8,328.90	72.41%
Seminar & Conf. Regist.	\$ 1,655.56	12,458.66	\$ 41,640.00	29,181.34	29.92%
Telephone	\$ 940.29	11,030.64	\$ 16,308.00	5,277.36	67.64%
Travel	\$ 527.29	13,165.00	\$ 84,828.00	71,663.00	15.52%
Small Tools/Office Mach.	\$ 131.88	3,135.65	\$ 3,000.00	(135.65)	104.52%
HSA/FSA Annual Contrib.	\$ 0.00	11,250.00	\$ 12,500.00	1,250.00	90.00%
Computer Software	\$ 198.00	12,995.00	\$ 15,000.00	2,005.00	86.63%
Contingency	\$ 0.00	0.00	\$ 16,639.00	16,639.00	0.00%
Contractual/Temp Svcs.	\$ 0.00	2,952.00	\$ 3,530.00	578.00	83.63%
Interest Expense	\$ 0.00	0.00	\$ 51,502.00	51,502.00	0.00%
Pass-Thru Expenses	\$ 0.00	199,427.78	\$ 1,034,442.00	835,014.22	19.28%
Consultants	\$ 94,046.12	2,587,167.39	\$ 3,519,377.00	932,209.61	73.51%
Repair & Maintenance	\$ 52.50	552.50	\$ 1,800.00	1,247.50	30.69%
Advertising/Public Notice	\$ 821.68	8,515.88	\$ 11,670.00	3,154.12	72.97%
Other Misc. Expense	\$ 123.14	3,253.38	\$ 14,690.00	11,436.62	22.15%
Contributions	\$ 25,000.00	125,000.00	\$ 150,950.00	25,950.00	82.81%
Educational Reimb.	\$ 0.00	0.00	\$ 1,800.00	1,800.00	0.00%
Comm. Rels. Sponsors	\$ 0.00	7,500.00	\$ 10,500.00	3,000.00	71.43%
Indirect Expense Carryfwd.	\$ 0.00	0.00	\$ 0.00	-	0.00%
TOTAL EXPENDITURES:	\$ 348,014.42	\$ 5,654,791.69	\$ 8,279,122.00	\$ 2,624,330.31	68.30%
AGENCY BALANCE:	\$ (64,407.32)	\$ 267,594.87			



Travel Summary - May 2022

Traveler: Nick Lepp
Dates: May 15-18, 2022
Destination: Fort Lauderdale, FL
Purpose of trip: AMPO Tech Symposium
Cost: \$1,460.94
Paid By: MetroPlan Orlando Funds

Traveler: Sarah Larsen
Dates: May 17-20, 2022
Destination: Seattle, WA
Purpose of trip: WTS International Conference
Cost: \$2,362.58
Paid By: MetroPlan Orlando Funds

Traveler: Virginia Whittington
Dates: May 22-24, 2022
Destination: Stuart, FL
Purpose of trip: CTD Vision Summit
Cost: \$431.03
Paid By: MetroPlan Orlando Funds



Board Action Fact Sheet

Meeting Date: July 27, 2022

Agenda Item: IX.D. (Tab 1)

Roll Call Vote: No

Action Requested:	Approval to Extend the Sole Source Contract with the University of Florida to Update MetroPlan Orlando's Web-based Crash Database
Reason:	To provide web-based access to crash data and analytical tools to MetroPlan Orlando staff and partners through FY 2023. It is currently hosted at the University of Florida's Geoplan Center.
Summary/Key Information:	Improvement in access to crash data and analysis contribute to the fulfillment of the requirement to include safety as a planning factor that a metropolitan planning organization must address in its transportation planning process and will support MetroPlan Orlando's mission to make the roadways safer. This request is being handled in compliance with the Board-approved procedures for awarding sole source contracts. The sole source contract, which is permitted under our procurement rules since the contractor is another public entity, will be for a total amount of \$36,000. Funds are included in our approved FY 2023 budget for this purpose.
MetroPlan Budget Impact:	N/A
Local Funding Impact:	None
Committee Action:	CAC: N/A TSMO: N/A TAC: N/A MAC: N/A
Staff Recommendation:	Recommends approval
Supporting Information:	The Scope of Services for this project is located under tab 1.

EXHIBIT A

FY 2022/2023 CRASH GEOSPATIAL DATABASE UPDATE, ANALYSIS AND REPORTING

1. PROJECT PURPOSE

The purpose of the **PROJECT** is twofold: a) assist METROPLAN ORLANDO with the annual update and maintenance of the crash database, and b) assist with the reporting and analysis of crashes.

The METROPLAN ORLANDO regional crash database is housed at University of Florida under *Signal Four Analytics* - a statewide crash data system, hosted at the University of Florida's GeoPlan Center. The development and maintenance of Signal Four Analytics is funded by the State through a grant from Florida Traffic Records Coordinating Committee (TRCC). The state funding covers daily acquisition of the crash data from the Florida Department of Highway Safety and Motor Vehicles (FLHSMV), processing and loading of crash data daily, automated geocoding, new features and software updates, training, and site hosting. While these are valuable services for METROPLAN ORLANDO users, there are several items of a local nature that are not covered in the scope of work of the state grant.

First, UF will continue to interactively geocode crashes on public roads for this fiscal year. Second, the regional database will need to be updated with traffic volumes on local roads needed to calculate crash rates and vehicle miles traveled (VMT). Finally, the University of Florida team will assist METROPLAN ORLANDO staff with several other tasks including working with law enforcement (LE) agencies to transition to crash mapping by officers and develop custom statistics and analysis to support METROPLAN ORLANDO's mission to improve traffic safety.

2. PROJECT TASKS

TASK 1 - INTERACTIVE GEOCODING OF CRASH DATA

The purpose of this task is to continue to interactively geocode long and short form crashes on public roads for the METROPLAN ORLANDO area. Based on historic data we expect about 34,000 crashes to require interactive geocoding. In terms of overall geocoding success rate (both automatic and interactive), it is expected that about 95-96% of all the crashes on public roads will be geocoded successfully. The other 4-5% is typically impossible to geocode due to insufficient location information on the crash form.

TASK 2 - MAPPING OF CRASH DATA BY LAW ENFORCEMENT AGENCIES

Interactive geocoding remains one of the most time-consuming efforts for maintaining a timely and complete crash database. To reduce, and potentially eliminate this effort, the state of Florida provides a free web-based geolocation tool for LE agencies and e-crash vendors in the state to use this tool to map crashes by officers. Due to these efforts, e-crash vendor TraCS have mandated the use of the tool for their agencies which has led to the reduction of the geocoding needs by about 22% in the Metroplan Orlando area. To continue to reduce the interactive geocoding effort for the rest of the crashes, METROPLAN ORLANDO and UF will continue to jointly work with law enforcement agencies in the area to educate and encourage officers to map crashes while completing the crash reports, before submitting the reports to

FLHSMV. This will gradually reduce and eventually eliminate the need for interactive geocoding in the future. In this task METROPLAN ORLANDO staff and UF team will conduct meetings with the relevant law enforcement agencies in the area and their e-crash vendors to discuss this issue and provide any necessary guidance, training, and assistance to have LE officers of the tri-county area map crashes using the geolocation tool. This year we expect adoption of the tool by three agencies that are using SmartCOP, Orlando PD that is using TraCS, and we'll reach out to FHP which report a large number of crashes in the area.

TASK 3 - UPDATE SIGNAL 4 ANALYTICS GIS BASEMAP WITH LOCAL TRAFFIC VOLUME

UF team will update the Signal Four Analytics GIS basemap with the local traffic volume which is required for calculation of crash rates on local roads and can be used to develop vehicle miles traveled. The local traffic volume will be obtained from a GIS file provided by Metroplan Orlando and it will be transferred to the Signal Four Analytics GIS basemap.

TASK 4 - REPORTING AND ANALYSIS

The UF team will support the METROPLAN ORLANDO staff with custom queries and analysis that METROPLAN ORLANDO staff may need. This may include supporting staff with quarter reporting on crash data; critical reporting on nuances in the data; and an annual crash data analysis report to support staff recommendations. Other examples of reporting and analysis may include information to support staff efforts to achieve Vision Zero, address equity issues, or improve bike/ped safety challenges to name a few. The UF team will assist staff with analytical support to advocate for traffic safety initiatives to reduce fatalities and injuries. This effort may lead to policies and practices that improve road behavior that reduces the probability of crashes.

3. BUDGET

This is a fixed cost project. The estimated budget needed to accomplish the proposed tasks is shown in Table 1 below. It includes salaries and benefits, travel, and the University of Florida indirect cost.

Table 1 - Estimated Budget

Budget Item	Annual Salary	Effort in Months	Project Salary	Fringe%	Fringe Amount	Total
SALARIES						
Principal Investigator	\$ 127,352	0.18	\$ 1,910	30.1%	\$ 575	\$ 2,485
Assistant Research Scientist	\$ 80,000	1.50	\$ 10,000	30.1%	\$ 3,010	\$ 13,010
Undergrad Student Assistants (3)	\$ 26,000	7.60	\$ 16,467	1.2%	\$ 198	\$ 16,664
TOTAL SALARIES						\$ 32,160
TRAVEL						\$ 568
TOTAL DIRECT COST						\$ 32,728
UF 10% INDIRECT COST						\$ 3,273
TOTAL COST						\$ 36,000

Salaries: The base annual salary for each position is shown in the Annual Salary column. It assumes 12 months, full time. The third column shows the estimated effort on this project in months and corresponding salary amount is shown in the fourth column followed by the fringe benefits. The roles and effort for each position are explained below:

- The **Principal Investigator** (faculty) will devote his time to oversee the entire project. The PI will provide direction and leadership and coordinate all components of the project and coordinate with METROPLAN ORLANDO staff.

- The **Assistant Research Scientist** (faculty) will perform queries and conduct analysis as needed by METROPLAN ORLANDO staff and provide training and supervision for the undergraduate students.
- The three **Undergraduate Student Assistants** will be responsible for conducting interactive geocoding year around and for updating the Signal Four GIS basemap with local data as well as assisting with quality assurance and testing.

Travel: Travel is required to meet with METROPLAN ORLANDO staff to discuss project progress. Two trips are estimated.

UF F&A Cost: This is the University of Florida Facilities and Administrative (F&A) Cost - also known as Indirect Costs (IDC). University of Florida charges a standard 10% of the total project direct cost for this funding source. Details about this requirement can be found at <http://research.ufl.edu/dsp/proposals/budgeting/fa-rates-idc.html>

4. PAYMENT SCHEDULE

METROPLAN ORLANDO will be billed in two lump sums, semi-annually, of \$18,000 each. Progress reports are due with each invoice.

TAB 2





Board Action Fact Sheet

Meeting Date: July 27, 2022

Agenda Item: X.A (Tab 2)

Roll Call Vote: Yes

Action Requested: Board approval is requested for the FY 2022/23 – 2026/27 Transportation Improvement Program (TIP) and Resolution No. 22-06.

Reason: Approval of the TIP by the Board is required before the TIP can be submitted to FDOT and other state and federal agencies by the July deadline.

Summary/Key Information: The FY 2022/23 – 2026/27 TIP includes:

- Nearly \$900 million in federal and state funds for highway projects, including the I-4 Ultimate and Beyond the Ultimate projects
- Nearly \$1.2 billion in funding for Florida's Turnpike Enterprise projects, including major capacity projects on Florida's Turnpike and SR 417
- Nearly \$160 million in federal and state funds for Traffic Operations and Safety projects
- Over \$98 million in federal and state funds for bicycle and pedestrian projects
- Over \$430 million in federal and state funds for transit projects
- Nearly \$192 million in federal and state funds for commuter rail projects
- Over \$309 million in federal and state funds for aviation projects

MetroPlan Budget Impact: None

Local Funding Impact: Over \$5 billion in locally funded projects is included in the TIP for information purposes.

Committee Action:

CAC:	Recommended for approval on June 22, 2022
TSMO:	Recommended for approval on June 24, 2022
TAC:	Recommended for approval on June 24, 2022
MAC:	Recommended for approval on July 7, 2022

Staff Recommendation: Recommends approval

Supporting Information: These documents are provided at Tab 2:

Draft FY 2022/23 – 2026/27 TIP (link)
<https://metroplanorlando.org/wp-content/uploads/TIP-2327-Draft-P.pdf>

Proposed Board Resolution No. 22-06

(TIP public meeting comments will be provided separately.)

RESOLUTION NO. 22-06**SUBJECT:**
Endorsement of FY 2022/23 - 2026/27
Transportation Improvement Program

WHEREAS, MetroPlan Orlando is the organization designated by the Governor as being responsible, together with the State, for carrying out the provisions of 23 U.S.C. 134, as provided in 23 U.S.C. 104 (f) (3), and capable of meeting the requirements of Section 3 (a) (2) and (e) (1), and 4 (a), and 5 (9) (1) and (1) of the Federal Transit Act 49 U.S.C. 1602 (a) (2) and (e) (1), 1603 (a) and 1604 (9) (1) and (1); and

WHEREAS, the Transportation Improvement Program, including the annual element, shall be endorsed annually by the MetroPlan Orlando Board and submitted (1) to the Governor and the Federal Transit Administrator and (2) through the State to the Federal Highway Administrator as provided in 23 U.S.C. 450.316;

NOW, THEREFORE, BE IT RESOLVED by the MetroPlan Orlando Board that the FY 2022/23 - 2026/27 Orlando Urban Area Transportation Improvement Program (TIP) is hereby endorsed as an accurate representation of the area's priorities as developed through a continuing, comprehensive planning process carried on cooperatively by the State and local communities in accordance with the provisions of 23 U.S.C. 134.

Passed and duly adopted this 27th day of July, 2022.

CERTIFICATE

The undersigned duly qualified as Chairwoman 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.

Commissioner Mayra Uribe, Chair

Attest:

Lisa Smith, Sr. Board Services Coordinator
and Recording Secretary



Public Comments on Transportation Improvement Program FY 2022/23-26/27 (as of 7/14/22)

Public Comment Period: June 20 – July 22, 2022

This document serves as the official record of public comments for the Transportation Improvement Program to be presented to the MetroPlan Orlando Board on July 27, 2022.

Comments were accepted in various ways:

1. Written comment via email through 7/22/22 to comment@metroplanorlando.org
2. Spoken comments will also be taken at the 7/27/22 Board meeting, where comments can be made virtually or in person



Virtual Public Meeting

The Transportation Improvement Program (TIP) virtual public meeting was held on **June 20, 2022** at 11:30 am. We had **88 attendees**, 21 were panelists and 67 were public participants. There were **22 questions and answers** submitted and **3 live public comments**. The meeting recording was published on MetroPlan Orlando's YouTube page and, to date, has been viewed **125 times**.

During the meeting, MetroPlan Orlando staff members provided an overview of the draft FY 2022/23-2026/27 Transportation Improvement Program. Topics of discussion included federal/state funds programmed and the Prioritized Project List. The plan includes projects that are programmed for funding over the next five years. A short tutorial video explaining the planning process was also shown. Staff presented highway, complete streets, bicycle and pedestrian, transit, transportation systems management and operations, and safety projects in Orange, Osceola and Seminole counties. Live polling questions were used to engage with the audience throughout the presentation. The program included a question and answer session with MetroPlan Orlando staff members and transportation partners. This was followed by a public comment session where audience members could make oral comments on the plan.

Partners in attendance:

Ms. Loreen Bobo, Florida Department of Transportation District 5
Ms. Anna Taylor, Florida Department of Transportation District 5
Ms. Rakinya Hinson, Florida Department of Transportation District 5
Mr. Siaosi Fine, Florida's Turnpike Enterprise
Mr. Myles O'Keefe, LYNX
Mr. Renzo Nastasi, Orange County
Mr. Bill Wharton, Seminole County
Mr. Cade Braud, City of Orlando
Mr. Gus Castro, City of Orlando

Staff in attendance:

Mr. Gary Huttman, MetroPlan Orlando Staff
Mr. Alex Trauger, MetroPlan Orlando Staff
Mr. Keith Caskey, MetroPlan Orlando Staff
Ms. Sarah Larsen, MetroPlan Orlando Staff
Ms. Taylor Laurent, MetroPlan Orlando Staff
Mr. Eric Hill, MetroPlan Orlando Staff
Ms. Lara Bouck, MetroPlan Orlando Staff
Mr. Mighk Wilson, MetroPlan Orlando Staff
Ms. Virginia L. Whittington, MetroPlan Orlando Staff
Ms. Cynthia Lambert, MetroPlan Orlando Staff
Ms. Leilani Vaiaoga, MetroPlan Orlando Staff
Ms. Lisa Smith, MetroPlan Orlando Staff

Record of Public Comments Submitted Verbally

The following verbal comments were received at the public meeting.

Comment#:	Name:	Date Received:	Comment Method:
1	Jonathan Aman	6/20/22	Verbal

Mr. Jonathan Aman spoke concerning rail transit. He commented that he feels that it is unfortunate that only those that live in the northeast corridor can enjoy the benefits of high-speed rail. He also expressed that it would be good if Amtrak could link up with Brightline and offer a route segment to Tampa.

Comment#:	Name:	Date Received:	Comment Method:
2	Sherri Brun	6/20/22	Verbal

Ms. Sherri Brun commented about the need to install Audible Pedestrian Signals for the visually impaired and blind population and the need to install a mid-block crossing on Conway Road between Michigan Avenue and Curry Ford Road. MetroPlan Orlando staff provided information on how to request Audible Pedestrian Signals through the local partners.

Comment#:	Name:	Date Received:	Comment Method:
3	John Douglas	6/20/22	Verbal

Mr. John Douglas commented on the need to put an end to “death gutters” with regard to bicycle safety and install a bike rack at Montgomery Road/Central Parkway in Altamonte to encourage use of the autonomous shuttle; improve commercial buses and provide transit at night in an effort to make them more accessible; curb speeding by narrowing streets; and to provide monorail service in the tourist area.

[Note: A finalized version of this document will be provided to board members before the 7/27 MetroPlan Orlando Board meeting and after the public comment period closes on 7/22]

TAB 3





Board Action Fact Sheet

Meeting Date: July 27, 2022

Agenda Item: X.B (Tab 3)

Roll Call Vote: No

Action Requested:	MetroPlan Orlando Staff requests adoption of the 2027-2035 Prioritized Project List (PPL).		
Reason:	By state statute the Prioritized Project List needs to be transmitted to FDOT this year by August 1 st . The MetroPlan Orlando Board last adopted the PPL on July7, 2021. To comply with state guidance, MetroPlan Orlando staff requesting the annual approval of the Prioritized Project List.		
Summary/Key Information:	<p>Items of particular significance for our Committees and the Board are as follows:</p> <ul style="list-style-type: none">• Priority lists and funding programs consistent with Board policy.• Prioritization approach consistent with 2045 MTP goals and objectives and quantitative network evaluation based on Board preference weighting. Weighting/criteria scoring emphasize vulnerable user safety.• No priority rank changes to Transit or Bike/Pedestrian lists.• Off-System Construction Program candidate projects identified.• TSM&O project bundles were created to support LAP procurement.• TMA (urban area) funding for special studies and the annual traffic signal retiming was identified in the PPL and UPWP to provide better linkage between MetroPlan Orlando core products.• Four (4) priority programs (ACES Demonstration, Countywide/Areawide Improvements, Sidewalk Gaps, and Off-System Safety Emphasis) still under development with TSM&O and Technical Advisory Committees.		
MetroPlan Budget Impact:	None		
Local Funding Impact:	None		
Committee Action:	CAC:	Recommended Approval	
	TSMO:	Recommended Approval	
	TAC:	Recommended Approval	
	MAC:	Recommended Approval	
Staff Recommendation:	Recommended Approval		
Supporting Information:	These documents are provided at Tab 3: Prioritized Project List (PPL) 2027 – 2035 for adoption: https://metroplanorlando.org/wp-content/uploads/MetroPlanOrlando_PPL_FY2026-2035_v20220713.pdf		

Prioritized Project List 2026 – 2035

Revised Draft for Adoption (07.13.22)



Executive Summary

Each year, MetroPlan Orlando updates the Prioritized Project List (PPL), a document that includes all the upcoming highway, bicycle, pedestrian, transit, aviation, and other transportation-related projects in our three-county region (Orange, Osceola, and Seminole Counties) that have been deemed cost feasible in the near term but may still have unfunded phases. The Prioritized Project List shows which projects are next in line for federal and state funding.

The PPL is created in conjunction with the Transportation Improvement Program (TIP), which contains all transportation projects that are programmed for funding over the next five years. As written in 23 U.S. Code § 134, all projects that receive federal funding “shall be selected for implementation from the approved TIP by the metropolitan planning organization designated for the area in consultation with the State and any affected public transportation operator.” In addition, the TIP and PPL must be consistent with the adopted Metropolitan Transportation Plan (MTP). The current TIP is planned from Fiscal Year (FY) 2021/22 to 2025/26 and the currently adopted MTP is planned through 2045. The PPL covers all projects that are awaiting funding and implementation in the first 10 years of the MTP’s Cost Feasible Plan that are not yet included in the TIP, thus this PPL covers FY 2026/27 to FY 2035/36.

The PPL is organized into two core categories:

National Highway System and State Roads

This category contains projects on the National Highway System, State Roads, and Off-System Construction Assistance. The State Roads designation also contains other federal functionally classified roadways, but they are identified separately due to the MetroPlan Orlando Board Policy on the allocation of Transportation Management Area (TMA) funds apportioned to MetroPlan Orlando for being a Large Urbanized Area (population over 200,000).

MetroPlan Orlando Multimodal System

This category contains federally funded projects exclusively off the state highway system. Projects included in the MetroPlan Orlando Multimodal System are Roadway and Complete Streets, Safety Emphasis, Transportation System Management and Operations (TSM&O), TSM&O Area-Wide, Automated/ Connected/ Electric/Share (ACES) Demonstrations, Pedestrian & Bicycle Infrastructure, Safe Routes to School, Critical Sidewalk Gaps, and Regional Transit projects.

To determine which project will be eligible for funding next, each of the projects on the PPL were ranked through a process known as performance-based planning. For projects of the National Highway System and State Roads, the MetroPlan Orlando Board and its subsidiary committees prioritize these projects for funding based on their potential to help achieve targets set for Safety, Travel Time Reliability, Bridge, and Pavement Condition performance measures. Projects in the MetroPlan Orlando Multimodal System are also ranked through performance-based planning and include additional, regionally focused objectives and targets.

After this document is approved by the MetroPlan Orlando Board, it is submitted to the Florida Department of Transportation (FDOT). FDOT uses both the National Highway and State Road lists and MetroPlan Orlando’s Multimodal System (TMA) lists to program projects for funding in the FY 2021/22 - 2025/26 Work Program based on both the MetroPlan Orlando TMA priorities and the FDOT FY 2021/22 – 2025/26 Tentative Five-Year Work Program.

It is important to note, most new projects or project phases are typically added into the fifth year of the Work Program. Once a project in the PPL has been fully funded through construction in the TIP and the FDOT Work Program, it is then removed from the PPL. Any projects/phases remaining on the PPL can be advanced to a higher priority over time, and new projects can eventually be added to this list of priority projects.

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Legal Information

The preparation of this report has been financed in part through grants from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the State Planning and Research Program, Section 505 [or Metropolitan Planning Program, Section 104(f)] of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

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Abbreviations & Acronyms

Planning Terms

PPL	Prioritized Project List
TIP	Transportation Improvement Program
MTP	Metropolitan Transportation Plan (our region's 2045 long range transportation plan)
UPWP	Unified Planning Work Program (MetroPlan Orlando's annual operating budget)
TMA	Transportation Management Area
LAP	Local Agency Program (FDOT program for local agencies to administer federal/state funds)

Funding Categories

DDR	District Dedicated Revenue funds (State)
FTA	Federal Transit Administration funds (Federal)
NHS	National Highway System funds (Federal) – used for interstate highway projects
TMA	Transportation Management Area (Federal) – prioritized and programmed by MetroPlan Orlando
SU	Surface Transportation Program funds (Federal) – may be used for highway, transit, or enhancement (bicycle/pedestrian, beautification, etc.) projects in urban areas of greater than 200,000 population
TALU	Transportation Alternative funds (Federal) – used for Complete Streets, bicycle and pedestrian projects
TRIP	Transportation Regional Incentive Program funds (State) - used for regionally significant projects with a minimum of 50% in local matching funds required

Project Phases

PLN	Planning / Feasibility Study
PD&E	Project Development and Environmental Study
PE	Preliminary Engineering (Design)
ROW	Right-of-Way Acquisition
CST	Construction
CEI	Construction-Engineering Inspection

Introduction

The Prioritized Project List (PPL) is the annual technical process to determine which projects should be funded next within MetroPlan Orlando's five-year Transportation Improvement Program (TIP). Both the TIP and the PPL are created in accordance with federal guidelines. While the TIP contains transportation projects that are currently or soon-to-be funded, the 2045 Metropolitan Transportation Plan, or the MTP, looks further out into the future. The PPL is the bridge between these two documents. The TIP, the PPL, and the MTP, act as our guidance for what should be funded in the short-term and in the long run.



For the more information about the above referenced plans, visit the MetroPlan Orlando webpages below:

Metropolitan Transportation Plan (MTP) –

<https://metroplanorlando.org/plans/metropolitan-transportation-plan>

Prioritized Project List (PPL) –

<https://metroplanorlando.org/plans/prioritized-project-list>

Transportation Improvement Program (TIP) –

<https://metroplanorlando.org/plans/transportation-improvement-program>

Planning & Prioritization Process

Consistent with FHWA's Transportation Performance Management (TPM) guidance, MetroPlan Orlando is using a data-driven and context-sensitive approach to identify and assess candidate transportation projects for the Prioritized Project List (PPL). The intent of this process is to identify, select, and fund projects which best address regional transportation goals, objectives, and targets. The use of comparative criteria and the evaluation process described in the following sections to select projects is intended to guide and assist MetroPlan Orlando and its partner agencies in establishing the order in which projects may be implemented, based on forecasted funding levels.

Approach

The project assessment and prioritization process consists of two (2) key phases:

1. Project Assessment and Comparative Analysis

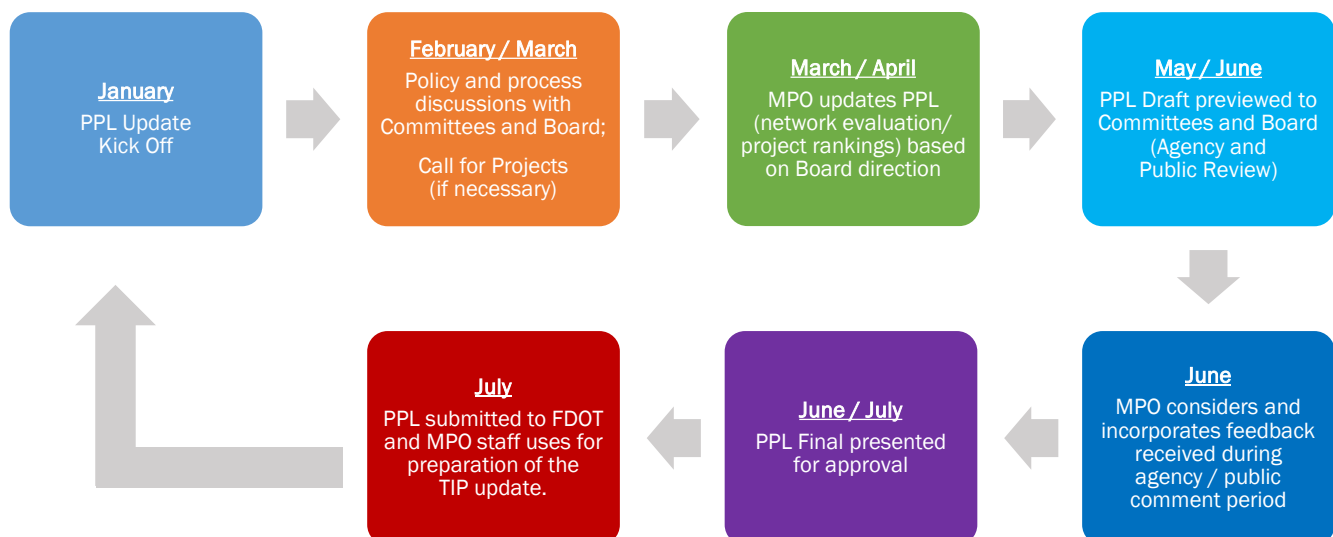
Utilizing the evaluation criteria documented in the Methodology section of this document, eligible candidate projects are evaluated. Rankings and associated project costs for all phases are also considered as part of the annual update of the Prioritized Project List. During this step, MetroPlan Orlando staff ensures consistency with the adopted Metropolitan Transportation Plan (MTP) Cost Feasible Plan.

2. Agency and Public Review of Preliminary Findings / Draft PPL

Following completion of project assessment and preparation of the draft PPL, MetroPlan Orlando staff, Technical Advisory Committee (TAC), and Transportation Systems Management & Operations (TSM&O) Advisory Committee members review the preliminary findings. Feedback from agency partners and other stakeholders will also be considered during this step in the process.

This project prioritization process, summarized in Figure 1, is intended to complement MetroPlan Orlando's regional planning, congestion management, and overall decision-making process. While ultimate discretion is granted to the MPO Board, the data-informed and objective-driven findings yielded from the assessment phase provides decision-makers with the best information available, consistent with Transportation Performance Management best practices.

Figure 1 | PPL Development Schedule



Method

The intention of this evaluation is to use comparative criteria to evaluate projects and their relationships to the planning goals listed below. This methodology was developed for consistency with the MTP. The criteria suggested in this process are not static and it is acknowledged that emphasis areas stressed by the federal and state government or special preferences by local governments and the MPO Board will change over time. This may lead to the addition of new factors and the elimination of others; these aspects can and will be considered in future updates of the MTP. As previously noted, the project assessment guidelines are intended to assist decision-makers in determining how well each transportation project, regardless of mode, reflects the planning objectives and performance targets.

Projects were evaluated and prioritized consistent with the MTP's Goals, Objectives, and Targets. These long-range transportation system goals are shown in Figure 2.

Figure 2 | Goals & Objectives



Source: MetroPlan Orlando, 2045 MTP

Multiple Criteria Decision Analysis

By considering transportation industry evaluation best practices, local experience and professional judgment, the project prioritization process will use a Multiple Criteria Decision Analysis (MCDA) framework. MCDA is the term used to describe the formal approach of considering multiple criteria in helping individuals and groups of people make important decisions. In other words, it is a field of study that applies scientific methods and analysis to help decision-makers choose between a series of competing and sometimes conflicting options.

Evaluation Criteria

MetroPlan Orlando's regional goals and objectives blended with the planning factors set forth in the federal FAST Act yielded 28 criteria, or scoring factors, consistent with MPO funding policies to serve as the basis for the comparative evaluation. In this way, projects will be proposed, funded, and constructed, with their needs/benefits measured for consistency with the MTP's goals and objectives. Figure 3 outlines the project evaluation criteria considered.

It should be noted that while priority programming determines the order in which projects are pursued, several factors such as available funding and the need for additional analysis or design can influence the order in which projects are implemented.

For more information about scoring and analysis, see Supplement B.

Did you know? Studies have shown that when making decisions, on average, people can only consider seven (\pm two) criteria when comparing different options.

For complex programmatic decision making, Multiple Criteria Decision Analysis ensures that influencing factors are not overlooked, which could result in un-informed decisions and/or missed opportunities.

Figure 3 | Evaluation Criteria

Goal Area	Evaluation Criteria
Safety & Security	Crash Rate
	Fatal & Serious Injury Crash Rates
	Number of Pedestrian & Bicycle Crashes
	Evacuation Route Designation
Reliability & Performance	Travel Time Reliability (Auto)
	Unreliability on Constrained Corridor
	Fiber Optic Presence
	Segment Actively Monitored/Managed
	Relative Change: Future Congested Speeds
Access & Connectivity	Transit System Headways
	Population: ½ Mile of Non-Transit Corridor
	Jobs: ½ Mile of Non-Transit Corridor
	Food & Healthcare Locations: ½ Mile of Corridor
	Cultural & Recreational Locations: ½ Mile of Corridor
	MTP Centrality Analysis Score (Critical Sidewalk Need)
Health & Environment	Bicycle Level of Traffic Stress
	Residential Density: ¼ Mile of Multimodal Facility
	Non-Residential Density: ¼ Mile of Multimodal Facility
	Public Health Indicator Rates
	Intensity & Proximity: Environmental Justice Populations
	Relative Change: Vehicle Miles Traveled (2020 vs. 2045)
Investment & Economy	Percentage of Commercial Vehicle Traffic
	Statewide Truck Bottlenecks
	Intensity & Proximity: Freight Intensive Land Uses
	Relative Change: Vehicle Hours Traveled
	Cost Burdened Households: ¼ Mile of Corridor
	Percentage of Visitor Traffic
	Cost of Congestion

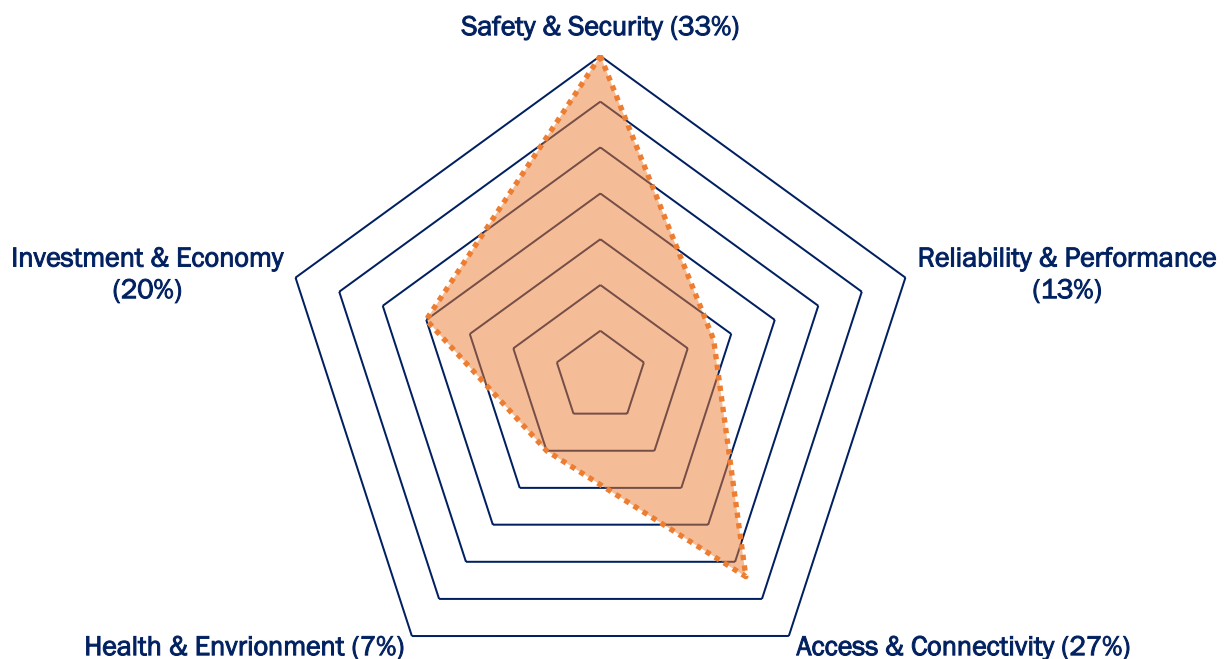
Weighting

Criteria weighting can be used to represent the overall preference and significance of goal areas in relation to one another. Weighting is typically applied following additive scoring and normalization. In determining goal area weight distribution, MPO staff utilized multiple feedback methods including public surveys, advisory committee recommendations, and board direction. Public research findings showed little variation between the categories, as it was seen as all goals are important and transportation impacts all aspects of our lives. Advisory Committees advocated for increased emphasis on safety and accessibility and the MetroPlan Orlando Board agreed and directed staff to further emphasize vulnerable user safety in the project prioritization process.



Figure 4 summarizes the goal area weighting and emphasis based on the direction of the MetroPlan Orlando Board.

Figure 4 | Goal Weighting and Emphasis



Source: MetroPlan Orlando, Board Direction, February 2022 (Agenda Item: IX-B)

It is important to note, a project's overall score does not necessarily indicate that funding will be received. Rather, the evaluation process will:

1. Assist local entities in regional collaboration to identify high impact priority projects;
2. Align projects with national goals which are used during funding decisions in regional and statewide competitive/discretionary processes; and
3. Emphasize the use of data analytics and performance-based planning as required by federal law.

Funding Programs and Priorities

The PPL is organized considering funding availability, project eligibility, and board direction. Consistent with the MTP, the priority list integrates board policy setting with project-level programing to advance mobility needs in the region.

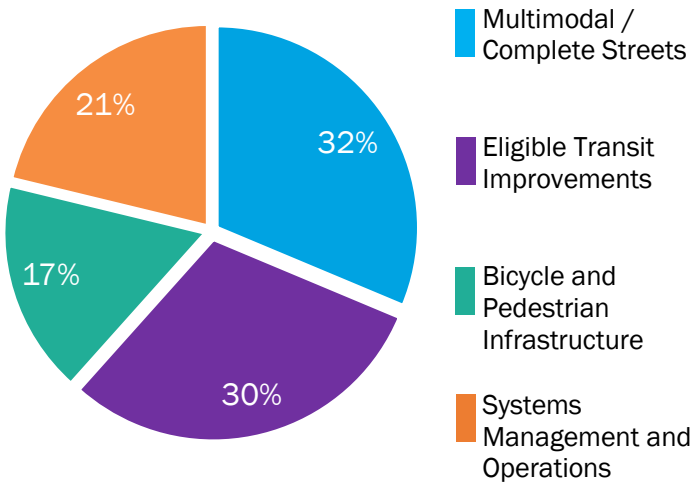
TMA Modal Allocation

Beginning in 1992, the MetroPlan Orlando Board established a policy to distribute Transportation Management Area (TMA) Surface Transportation Program (SU+TALU) funds (i.e. federal funds that MetroPlan Orlando is responsible for prioritizing and programming) among the modal categories for capital projects. This policy creates four modal categories to which TMA funding is allocated:

1. Multimodal / Complete Streets
2. Systems Management & Operations
3. Pedestrian and Bike Infrastructure
4. Eligible Transit Capital Improvements

The policy has been revisited regularly to allow for local input and investment direction. Effective FY 2020/21, funds are allocated to the established funding programs as shown in Figure 5.

Figure 5 | TMA Modal Allocation Policy



Note: Percentages calculated over a five-year period.

District Dedicated Revenue for Transit

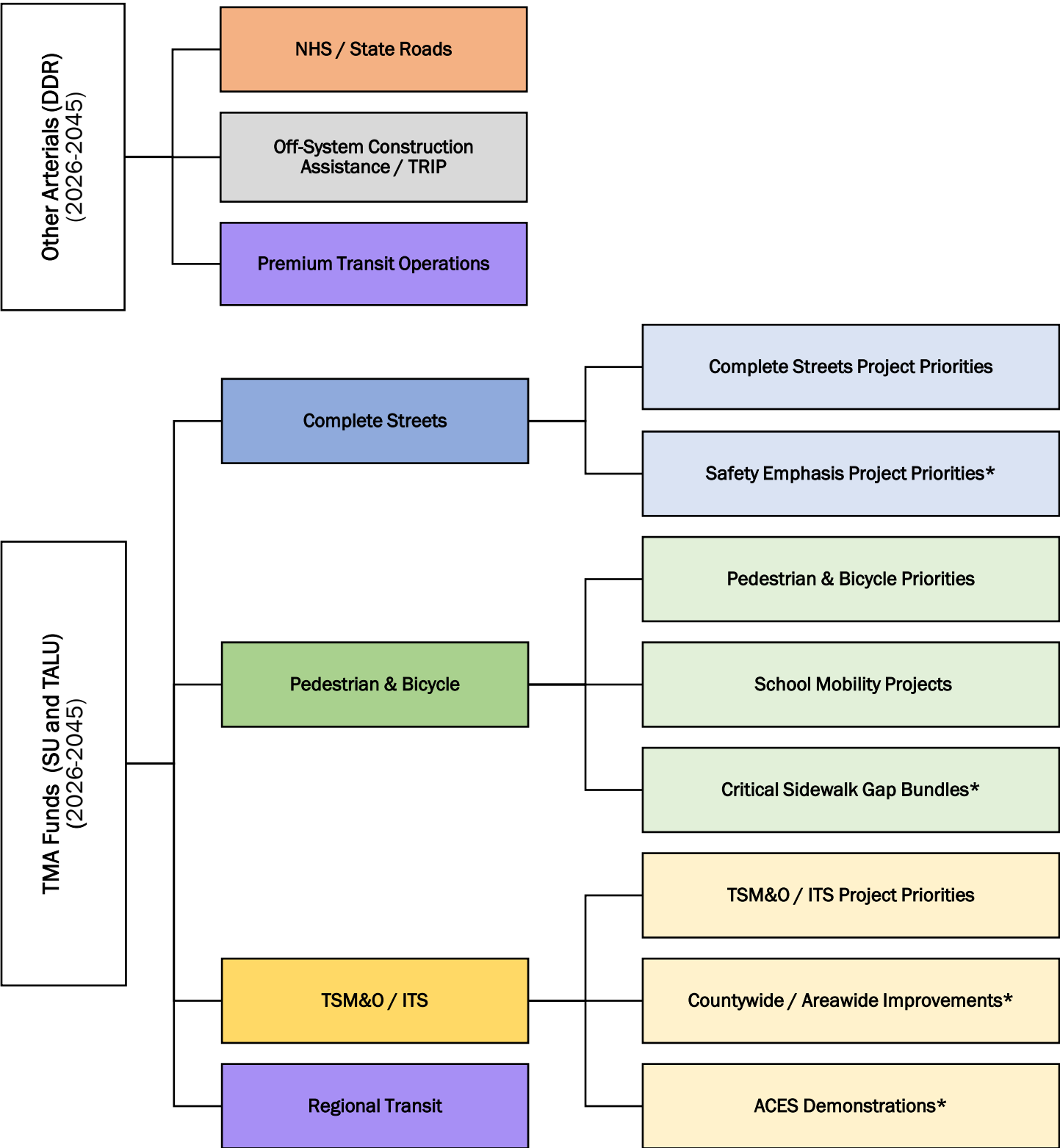
In May 2015, the MetroPlan Orlando Board adopted a premium transit operations funding policy; Resolution #15-08. Up to 30% of MetroPlan Orlando’s State District Dedicated Revenue (DDR) funds can be allocated for the operation of the premium transit projects.

2045 MTP-Identified Funding Programs Implemented in the PPL

In response to public feedback and findings from the 2045 MTP, targeted funding programs and sub-allocations were identified and adopted as part of the Cost Feasible Plan. These programs are consistent with the state and federal funding guidelines and strategically invest funds in alignment with planning goals and regional needs.

Figure 6 illustrates the MTP-Identified funding programs and sub-allocations which are to be implemented in the PPL. To advance these funding programs, MetroPlan Orlando staff is committed to working with FDOT, local agencies, and the Technical and Transportation Systems Management and Operations Advisory Committees to identify eligible projects, analyze impacts/benefits, and fund near-term priorities.

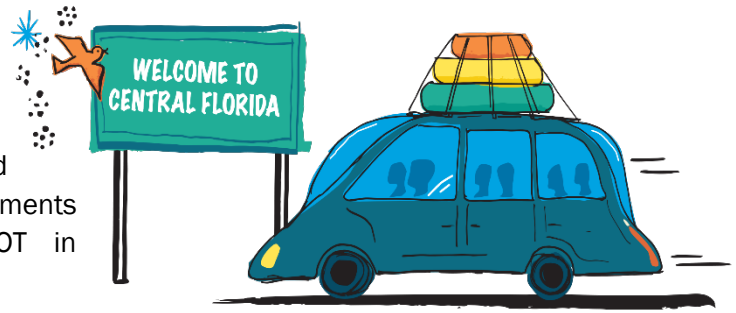
Figure 6 | 2045 MTP Funding Policies / Programs Implemented in PPL; 2026 - 2045



Source: MetroPlan Orlando, 2045 MTP Cost Feasible Plan.
* Priority list still under development with TSM&O / Technical Advisory Committees.

Interstate Highway System and Strategic Intermodal System

This list contains projects on the Interstate Highway System (IHS), Strategic Intermodal System (SIS), and National Highway Freight Network (NHFN). These improvements are programmed and implemented directly by FDOT in coordination with local agencies and MetroPlan Orlando.



Who may apply for this program? Local Governments and FDOT.

What projects are eligible? IHS, SIS, and NHFN transportation improvements (including but not limited to capacity, safety, Complete Streets, TSM&O, ITS, and freight-focused projects) sponsored by a local government partner or FDOT.

How may funds be used? Funds can be used for Planning, PD&E, Design, and Construction/CEI.

What type of funding supports this program? Federal and State “Other Arterial Funds” including District Dedicated Revenue (DDR) Funds. This list of projects is also funded using discretionary Strategic Intermodal System (SIS) and National Highway Freight Program (NHFP) funds administered by FDOT.

What are the terms? Funding is provided in cooperation with FDOT and FHWA. If LAP, local agency must be prepared to receive project-phase funding as scheduled.

Are there additional requirements? Project must demonstrate community support and environmental review must be completed/acceptable.

Where are these projects identified in the 2045 MTP? Cost Feasible Plan, Table 6.

What are the top Interstate Highway System / SIS priorities?

- I-4 Corridor (Polk/Osceola County Line to Seminole/Volusia County Line) – New Truck Parking Capacity
- I-4 (Osceola Pkwy to W of SR 528) – Ultimate Configuration for General Use & Managed Lanes
- I-4 (W of SR 528 to SR 535/Kirkman Road) – Ultimate Configuration for General Use & Managed Lanes
- I-4 (E of SR 434 to Seminole/Volusia County Line) – Ultimate Configuration for General Use & Managed Lanes
- I-4 (E of SR 535 to W of SR 535) – Interchange Improvements
- I-4 (at Sand Lake Rd) – Interchange Conversion to Diverging Diamond Interchange (DDI)
- I-4 (SR 535/Kirkman Rd to E of SR 434) – Ultimate Configuration for General Use & Managed Lanes
- I-4 (Polk/Osceola County Line to Osceola Pkwy) – Ultimate Configuration for General Use & Managed Lanes
- I-4 (W of Central Florida Pkwy to W of SR 528) – Add New WB Single Buffer Separated Managed Lane
- I-4 (E of SR 528 to W of SR 528) – Interchange Improvements
- SR 60 (Grape Hammock Rd in Polk Co. to E of Kissimmee River Bridge in Osceola Co.) – Widen to 4 Lanes

See detailed Priority List in Supplement A for additional information on state and federally funded projects on the Interstate Highway and Strategic Intermodal Systems as well as National Highway Freight Program priorities.

State Highway System

This list encompasses projects of all types on the State Highway System. This includes capacity improvements, complete streets, safety, operations, and ITS investments. These improvements are programed and implemented directly by FDOT in coordination with local agencies and MetroPlan Orlando.

Who may apply for this program? Local governments and MetroPlan Orlando in coordination with FDOT.

What projects are eligible? On-state system transportation and mobility improvements (including but not limited to capacity, safety, Complete Streets, TSM&O, ITS projects).

How may funds be used? Funds can be used for Planning, PD&E, Design, and Construction/CEI.

What type of funding supports this program? Federal and State “Other Arterial Funds” including FDOT District Dedicated Revenue (DDR).

What are the terms? Funding is provided in cooperation with FDOT.

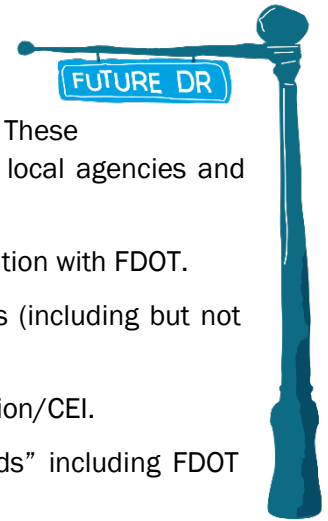
Are there additional requirements? Project must demonstrate community support and environmental review must be completed/acceptable.

Where are these projects identified in the 2045 MTP? Cost Feasible Plan, Table 9.

What are the top State Highway System priorities?

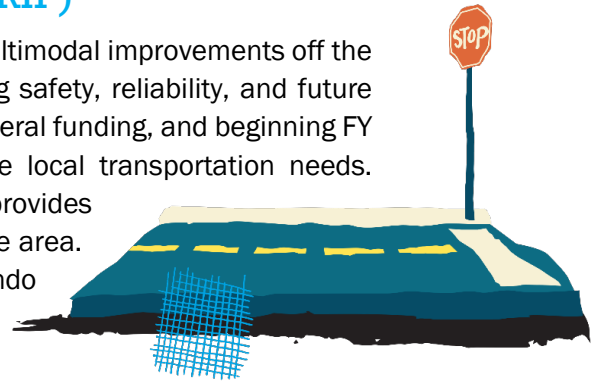
- SR 50 / Colonial Dr (Chuluota Rd to SR 520) – Widen to 6 Lanes
- SR 50 / Colonial Dr (SR 408 to Chuluota Rd) – Widen to 6 Lanes
- SR 526 / Robinson St (Rosalind Ave to Maguire Blvd) – Complete Streets
- SR 535 / S. Apopka-Vineland Rd (US 192 to SR 536/World Center Dr) – Widen to 6 lanes
- US 17/92 (Polk/Osceola County Line to Poinciana Blvd) – Widen to 4 lanes
- SR 434 (Franklin St to SR 417) – Complete Streets with Shared Use Path
- US 17/92 / John Young Parkway (Pleasant Hill Rd to Portage St) – Widen to 6 lanes with Urban Interchange
- US 17/92 (Nottingham St to Monroe St) – Construct Medians and Improve Bike/Pedestrian Safety
- SR 535 / Kirkman Rd (SR 536 to I-4) – Complete Streets / Safety / Operational Improvements
- US 17/92 (South of West 27th St to West 25th St) – Complete Streets

See detailed Priority List in Supplement A for additional information on state and federally funded projects on the State Highway System.



Off-System Construction Assistance (and TRIP)

The program acknowledges the need for additional capacity and multimodal improvements off the State Highway System. To help local governments address existing safety, reliability, and future congestion challenges, MetroPlan Orlando has identified eligible federal funding, and beginning FY 2026 will allocate 10% of federal (other arterial) funds to these local transportation needs. In addition, the Transportation Regional Incentive Program (TRIP) provides funds to improve regionally significant transportation facilities in the area. These projects are prioritized and programmed by MetroPlan Orlando and implemented by local agencies in coordination with FDOT.



Who may apply for this program? LAP-Certified local governments.

What projects are eligible? Any off-state system transportation improvement sponsored by a local government partner with prior phases identified in a Capital Improvement Plan.

How may funds be used? Funds may only be used for Construction / CEI. Local agency must fund all other required phases.

What type of funding supports this program? 10% of Federal “SA” Funds (a portion of “Other Arterial Funds”).

What are the terms? Funding is provided through a competitive process. Local agency must show commitment to advancing planning, PD&E, design, and ROW phases; and be prepared to receive construction funding as scheduled.

Are there additional requirements? Project must demonstrate community support and environmental review must be completed/acceptable.

Where is funding identified for these projects in the 2045 MTP? Cost Feasible Plan, Table 10.

What are the unranked off-system construction assistance priorities?

- Old Lake Wilson Rd (Sinclair Rd to SR 532) – Widen to 4 Lanes with Median
- Econlockhatchee Tr (Curry Ford Rd to Lee Vista Blvd) – Widen to 4 Lanes with Shared Use Path
- President Barack Obama Pkwy, Ph. 2 (Metrowest Blvd to Raleigh St) – New 4 Lane Road with Shared Use Path
- CR 532/Canoe Creek Rd (Pine Tree Dr to US 192) – Widen to 4 Lanes with Median
- CR 532/Canoe Creek Rd (Deer Run Rd to US 192) – Widen to 4 Lanes with Median
- Kelly Park Rd (Round Lake Rd to Plymouth Sorrento Rd) – Widen to 4 Lanes with Shared Use Path
- Winter Park Dr (at Queens Mirror, Crystal Bowl, Wilshire Dr) – Bicycle and Pedestrian Improvements
- Kelly Park Rd (Golden Gem Rd to Jason Dwelley Rd) – Widen to 4 Lanes with Shared Use Path

See detailed Priority List in Supplement A for additional information on the construction assistance projects.

Complete Streets & Context-Sensitive Improvements

The Complete Streets project list includes projects off the state road system that are functionally classified. The projects in this list include non-capacity multimodal context-sensitive projects – in other words, a combination of bicycle & pedestrian, transit, and intersection improvements that improve safety and efficiency on roads without adding lanes. These projects are prioritized and programmed by MetroPlan Orlando and implemented by local agencies; in coordination with FDOT.



Who may apply for this program? LAP-Certified local governments.

What projects are eligible? Complete Streets and other context-sensitive improvements (non-capacity multimodal projects that use a combination of bicycle & pedestrian, transit, and intersection improvements to improve safety and efficiency on constrained roadways without adding lanes) located off the State Highway System sponsored by a local government partner.

How may funds be used? Funds can be used for Planning, PD&E, Design, and Construction/CEI.

What type of funding supports this program? Federal TMA Funds (SU and TALU).

What are the terms? Funding is provided through a competitive process. Local agency must show commitment to complying with FDOT's "4P" process and must be prepared to receive project-phase funding as scheduled.

Are there additional requirements? Project must demonstrate community support and environmental review must be completed/acceptable.

Where are these projects identified in the 2045 MTP? Cost Feasible Plan, Table 12.

What are the top TMA-funded Roadway and Complete Streets priorities submitted for funding?

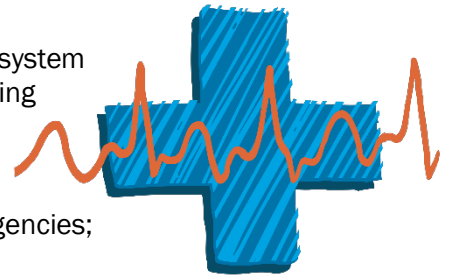
- Construction for Winter Park Dr (Red Bug Lakes Rd to SR 434) – Complete Streets / Safety Improvements *
- Planning for Old Dixie Highway (Vick Rd to Hawthorne Ave) – Complete Streets
- Planning for South Park Ave / Clarcona Rd (US 441 / Main St to Cleveland St) – Complete Streets
- PD&E for Goldsboro Community Gateway Project (SR 46 to Persimmon Ave) – New 2-Lane Complete Street
- Construction for East Church Ave (Ronald Reagan Blvd to US 17/92) – Complete Street w/ Shared Use Path
- Planning for West Michael Gladden Blvd (South Park Ave to Bradshaw Rd) – Complete Streets
- PD&E for West Gore St (S Rio Grande Ave to Delaney Ave) – Complete Streets
- PD&E for Poinciana Blvd (Lizzia Brown Rd to Trafalgar Blvd) – Complete Streets

* Project requires local funding contribution.

See detailed Priority List in Supplement A for additional information on TMA funded Multimodal System Roadway & Complete Streets projects.

Safety Emphasis Projects

MetroPlan Orlando is committed to providing a safe and secure transportation system for all users. To provide targeted funding, the 2045 MTP established a new funding program to address regional safety issues off the state highway system. This list will include projects in areas with known safety issues and projects must show evidence of safety improvement/crash reduction potential. These projects will be prioritized and programmed by MetroPlan Orlando and implemented by local agencies; in coordination with FDOT.



As noted in Figure 6, *this list of priority safety emphasis projects is still under development.*

This process will be guided by MetroPlan Orlando's Vulnerable User Safety Working Group, in coordination with the Technical Advisory Committee. Priority list guidelines, eligibility requirements, and evaluation/selection methodology will be established in the Summer of 2022 with a prospective call for projects in the Fall of 2022. These efforts will be in preparation for the 2023 annual update of the Prioritized Project List (PPL) and programming of funds, with projects beginning in Fiscal Year 2026 moving to the Transportation Improvement Program (TIP).

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TSM&O Corridor and Intersection Projects

A list of Transportation Systems Management & Operations (TSM&O) projects is also included in the PPL. These are projects that use innovative strategies or leverage existing technology deployments to improve travel time reliability on existing roadways without adding capacity and utilize such methods as adding turn lanes at intersections, computerized traffic signal systems, integrated corridor management, traveler information, etc. The TSM&O category includes projects pertaining to incident management, Transportation Demand Management, and other related activities. These projects are prioritized and programmed by MetroPlan Orlando and implemented by local agencies, in coordination with FDOT.



Who may apply for this program? LAP-Certified local governments.

What projects are eligible? Any non-capacity project designed to improve safety and travel time reliability, facilitate data sharing, or enhance “future readiness”.

How may funds be used? Funds can be used for Planning, PD&E, Design, and Construction/CEI.

What type of funding supports this program? Federal TMA Funds (SU and TALU).

What are the terms? Local agency must show commitment to complying with FDOT’s “4P” process and must be prepared to receive project-phase funding as scheduled.

Are there additional requirements? Project must demonstrate community support and environmental review must be completed/acceptable. The maximum federal/state funding per project is \$5 million (all phases); local agency to fund expenses greater than \$5 million.

Where are these projects identified in the 2045 MTP? Cost Feasible Plan, Table 11.

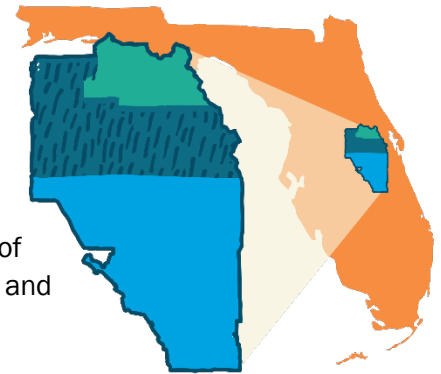
What are the top TMA-funded TSM&O + ITS priorities submitted for funding?

- PE and Construction for Pine St / Washington St Bundle (ID# B23) – Operational / Safety Improvements
- PE and Construction for Kaley Ave (I-4 to Orange Ave) – ITS / Technology Improvements
- PE for Church St Bundle (ID# B24) – ITS / Technology Improvements
- PE for Lawrence Slias Blvd / Neptune Rd Bundle (ID# B46) – ITS / Technology Improvements
- PE for Garland Ave Bundle (ID # B27) – Operational / Safety Improvements
- PE for Rosamond Dr / All American Blvd Bundle (ID# B5) – ITS / Technology Improvements
- PE for W South St / W Anderson St Bundle (ID# B25) – ITS / Technology Improvements
- PE for Livingston St (N Parramore Ave to Mills Ave) – ITS / Technology Improvements

See detailed Priority List in Supplement A for additional information on TMA funded Multimodal TSM&O/ITS projects.

ITS Area Wide Projects

The intent of this program is to fund bundles of Intelligent Transportation Systems (ITS) projects or technology upgrades that are located throughout a city/county and/or across multiple corridors or intersections. The individual projects use innovative strategies or leverage existing technology deployments to improve safety and reliability on existing roadways, facilitate data-sharing or implement smart/technology upgrades over a prescribed area. The ITS category of projects includes incident management, transportation demand management, and other related activities.



As noted in Figure 6, *this list of areawide ITS projects is still under development.*

This process is guided by MetroPlan Orlando's TSM&O Advisory Committee. Preliminary priority list guidelines and eligibility requirements, described below, were developed by a Working Group of the Advisory Committee. The TSM&O Working Group will reconvene in the Summer 2022 to establish an evaluation/selection methodology to prepare for a prospective call for projects in the Fall 2022. These efforts will be in preparation for the 2023 annual update of the Prioritized Project List (PPL) and programming of funds, with projects beginning in Fiscal Year 2026 moving to the Transportation Improvement Program (TIP).

Who may apply for this program? LAP-Certified local governments.

What projects are eligible? Non-capacity projects designed to improve safety and travel time reliability and enhance "future readiness" using innovations of technology.

How may funds be used? Funds can be used for Planning, Design, and Implementation/Construction/CEI.

What type of funding supports this program? Federal TMA Funds (SU and TALU).

What are the terms? Funding is provided through a competitive process. Local agency must show commitment to complying with FDOT's project readiness process and must be prepared to receive funding as scheduled.

Are there additional requirements? Project must demonstrate community support and environmental review must be completed/acceptable. The specific locations (and project scope, as applicable) for project implementation must be listed and a map or GIS shapefile must also be provided.

Where is funding identified for these projects in the 2045 MTP? Cost Feasible Plan, Table 11.

ACES Demonstration Projects

The intent of this program is to fund projects that will test various technologies and broaden the regional knowledge base around automated, connected, electric, and shared (ACES) vehicles, as identified in MetroPlan Orlando's 2020 CAV Readiness Study. These projects are prioritized and programmed by MetroPlan Orlando and implemented by local agencies, in coordination with FDOT.



As noted in Figure 6, *this list of ACES demonstration projects is still under development.*

This process is guided by MetroPlan Orlando's TSM&O Advisory Committee. Preliminary priority list guidelines and eligibility requirements, described below, were developed by a Working Group of the Advisory Committee. The TSM&O Working Group will reconvene in the Summer 2022 to establish an evaluation/selection methodology to prepare for a prospective call for projects in the Fall 2022. These efforts will be in preparation for the 2023 annual update of the Prioritized Project List (PPL) and programming of funds, with projects beginning in Fiscal Year 2026 moving to the Transportation Improvement Program (TIP).

Who may apply for this program? LAP-Certified local governments.

What projects are eligible? Automated, connected, electric or shared vehicle pilot and demonstration projects that are consistent with the Florida Department of Transportation (FDOT) ACES plan or address a regional need/issue.

How may funds be used? Funds can be used for Planning, Design, and Implementation/Construction/CEI.

What type of funding supports this program? Federal TMA Funds (SU and TALU) and Local Funding.

What are the terms? Funding is provided through a competitive process. Local agency must show commitment to complying with FDOT's "4P" process and must be prepared to receive project-phase funding as scheduled.

Are there additional requirements? Project must demonstrate community support or include a community outreach component to educate members of the traveling public and enhance awareness of these emerging technologies. Project sponsors of selected/funded projects are required to present/share lessons learned to the TSM&O Advisory Committee following project implementation.

Where is funding identified for these projects in the 2045 MTP? Cost Feasible Plan, Table 11.

Pedestrian & Bicycle Infrastructure Projects

The list of Pedestrian and Bicycle cost feasible projects and programs include: local and regional trail projects that can be used by cyclists and pedestrians for recreational and/or commuting, on-street bicycle lanes, critical sidewalk improvements (particularly for safety purposes around public schools and transit routes), and other projects that will improve overall bicycle and pedestrian mobility. These projects are prioritized and programmed by MetroPlan Orlando and implemented by local agencies, in coordination with FDOT.



Who may apply for this program? LAP-Certified local governments.

What projects are eligible? Sidewalks, shared use paths, bike lanes, and paved trails for commuting or recreation.

How may funds be used? Funds can be used for planning, PD&E, design, and Construction/CEI.

What type of funding supports this program? Federal TMA Funds (SU and TALU).

What are the terms? Funding is provided through a competitive process. Local agency must show commitment to complying with FDOT's "4P" process and must be prepared to receive project-phase funding as scheduled.

Are there additional requirements? Project must demonstrate community support and environmental review must be completed/acceptable.

Where are these projects identified in the 2045 MTP? Cost Feasible Plan, Table 13.

What are the top TMA-funded Pedestrian and Bicycle Infrastructure priorities submitted for funding?

- PE and Construction for Shingle Creek Trail Ph.4 (Alhambra Dr to Old Winter Garden Rd) – Shared Use Path *
- PE for Shingle Creek Trail (Yates Connector, Phase 2B) (Pleasant Hill Rd to Toho Vista) – Shared Use Path

* Project requires local funding contribution.

See detailed Priority List in Supplement A for additional information on TMA funded Pedestrian and Bicycle Infrastructure projects.

School Mobility / Safe Routes to School

The School Mobility and Safe Routes to School program was identified in the 2045 MTP to address projects off the state highway system that promote walking and bicycling to school through infrastructure improvements, enforcement, tools, safety education, and incentives to encourage walking and bicycling to school. The program's initiatives improve safety and levels of physical activity for students. These projects are prioritized and programmed by MetroPlan Orlando and implemented by local agencies, in coordination with FDOT.



Who may apply for this program? LAP-Certified local governments.

What projects are eligible? Projects that do not receive funding from FDOT's Safe Routes to School (SRTS) program.

How may funds be used? Funds can be used for design and Construction/CEI.

What type of funding supports this program? Federal TMA Funds (SU and TALU).

What are the terms? Funding is provided through a competitive process. Local agency must show commitment to complying with FDOT's "4P" process and must be prepared to receive project-phase funding as scheduled.

Are there additional requirements? Project must demonstrate community support and environmental review must be completed/acceptable.

Where is funding identified for these projects in the 2045 MTP? Cost Feasible Plan, Table 13.

What are the top TMA-funded School Mobility / Safe Routes to School priorities?

- Hickory Tree Elementary School (at Oakwind, Beachwood, Englewood)
- Laurel Ave / KOA Elementary School (KOA St to Berkshire Rd)
- Longwood Elementary School (N Grant Ave / Orange Ave and Highland Ave / Logan Ave)
- Midway Area Sidewalks (Spiar Ave to Beardall Ave)
- Reedy Creek Elementary School (Trafalgar Blvd / Pleasant Hill Rd/ Lizzia Brown Rd)

See detailed Priority List in Supplement A for additional information on TMA funded School Mobility / Safe Routes to School projects.

Critical Sidewalk Gaps (Bundles)

MetroPlan Orlando's Bicycle and Pedestrian assessment identified sidewalk gaps and a subset of "critical" gaps. The Critical Sidewalk Gaps program was established in the 2045 MTP to provide a mechanism to advance "critical" gaps off the state highway system. To streamline project programming and implementation, the critical sidewalk gaps are bundled/packaged following FHWA best practices. These projects are prioritized and programmed by MetroPlan Orlando and implemented by local agencies, in coordination with FDOT.



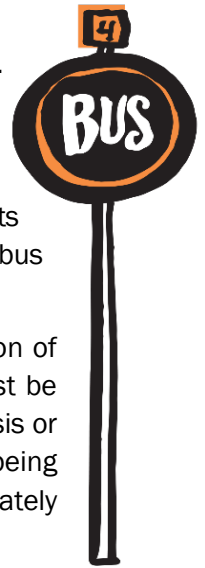
As noted in Figure 6, *this list of sidewalk priorities is still under development*.

This process will be guided by MetroPlan Orlando's Vulnerable User Safety Working Group, in coordination with the Technical Advisory Committee. Priority list guidelines, eligibility requirements, and evaluation/selection methodology will be established in the Summer of 2022 with a prospective review of eligible projects in the Fall of 2022. These efforts will be in preparation for the 2023 annual update of the Prioritized Project List (PPL) and programming of funds, with projects beginning in Fiscal Year 2026 moving to Transportation Improvement Program (TIP).

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Regional Transit Projects

The list of transit projects shown in the PPL includes what are known as “premium transit” projects. These projects are defined by the Federal Transit Administration as “transit modes that provide higher comfort, capacity, speed and frequency than typical local bus operations or create a positive perception to users.” Projects meeting this definition include commuter rail, light rail, bus rapid transit (BRT), streetcars, etc. The PPL transit section also includes ongoing federal formula transit projects pertaining to the fixed-route bus service operated by LYNX, the local transit provider. Fixed-route bus service is not considered to be premium transit.



MetroPlan Orlando has adopted a policy of using up to 30% of its state DDR funds for the operation of premium transit projects beginning in FY 2020/21. To qualify for the DDR funds, the projects must be identified as cost feasible in the 2045 MTP and must have gone through either an Alternatives Analysis or similar analysis to evaluate measures of effectiveness, costs, and benefits with study results being incorporated in the MTP. The transit projects in the PPL are split into five categories and ranked separately based on the types of the projects and the status of the planning/feasibility studies for the projects.

The five transit project categories include:

Category A – Projects identified as premium transit with construction funded in the 2045 MTP including completed transit planning/feasibility studies. Transit Concept and Alternatives Review (TCAR) are studies included in this section with the aim of advancing transit projects that qualify. Category A projects are eligible for DDR operating funds consistent with the MetroPlan Orlando Board resolution #15-08.

Category B – Projects requiring or have completed planning/feasibility studies. These projects are eligible for DDR operating funds once construction is fully funded.

Category C – This category includes enhancements to LYNX’s fixed route bus system. These projects are eligible for DDR funds except for operations and maintenance costs.

Category D – This category encompasses ongoing federal formula transit projects including Transit Asset Management projects. Thirty percent of SU funds are allocated to projects in this category. These projects are eligible for DDR Funds except for operations and maintenance costs.

Category E – This category includes local initiatives and service development projects for local jurisdictions to explore transportation alternatives that best serve the region. These projects may include CAV shuttles, circulators, trolleys, and other service expansion projects.

Note: Estimated costs of remaining phases identified in the transit priority list do not include operational funds.

See detailed Priority List in Supplement A for additional information on regional transit projects.

Supplement A -

Prioritized Project Lists

The Prioritized Project List is categorized based on network designation, funding eligibility and board policy. Figure 7 summarizes the individual lists which are elements of the regional transportation portfolio of projects.

Figure 7 | PPL Funding Programs / Priority Lists

Interstate Highway System + Strategic Intermodal System + National Highway Freight Network

This program identifies Interstate Highway System (IHS) and Strategic Intermodal System (SIS) projects with unfunded phases identified in the FY 2021/22 – FY 2025/26 TIP. List also includes National Highway Freight Network regional priorities.

State Highway System / State Road Projects

This list of multimodal projects includes roadway widening, Complete Streets, TSM&O, pedestrian and bicycle, and safety improvements on the State Highway System.

Off-System Construction Assistance (+TRIP)

Ten percent from “Other Arterial Funds” are allocated to the Construction and CEI costs of regionally significant Off-State Highway System projects. List also includes projects identified for Transportation Regional Incentive Program (TRIP) funds.

Complete Streets

MetroPlan Orlando’s TMA funding policy allocates 32% of Urbanized Area funds to Off-State Highway System Complete Streets, context-sensitive, and safety improvements.

Safety Emphasis

TMA funds are allocated to addressing regional safety issues off the State Highway System. Eligible agencies must complete concept development and prepare a design scope. Projects will be evaluated by the Vulnerable User Safety Working Group.

Transportation System Management & Operations & ITS (Intersections and Corridors)

MetroPlan Orlando’s TMA policy allocates 21% of Urbanized Area funds to Transportation Systems Management & Operations, safety, and technology improvements off the state highway system.

ITS Area Wide Improvements

Projects may include multiple locations and expenses such as detection equipment, signal cabinets, CAV technology, and other eligible equipment as identified and prioritized by the TSM&O Advisory Committee.

ACES Demonstration

TMA funds are allocated to the demonstration of Automated, Connected, Electric, and Shared (ACES) vehicle technologies on the Federal Aid System as identified and prioritized by the TSM&O Advisory Committee.

Regional Trails / Shared Use Paths

MetroPlan Orlando’s TMA policy allocates 17% of Urbanized Area funds to off-State Highway System Bicycle and Pedestrian improvements including safety projects, paved trails and shared use paths.

School Mobility / Safe Routes to School

TMA funds are also allocated to address School Mobility (Safe Routes to Schools) projects that do not receive funding from the Florida Department of Transportation's Safe Routes to Schools (SRTS) program.

Critical Sidewalk Gaps (Bundles)

TMA funds are allocated to addressing critical sidewalk improvements, particularly for purposes of improving safety around public schools and near transit activity centers as identified and evaluated by the Vulnerable User Safety Working Group.

Regional Transit

MetroPlan Orlando’s TMA policy allocates 30% of Urbanized Area funds for eligible transit capital investments that expand the Public Transportation System.

Interstate Highway System + Strategic Intermodal System + National Highway Freight Network Projects

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
107	1	2.08	<div><div></div></div> 0	I-4	Polk / Osceola CL	Seminole / Volusia CL	46.91	New and Improved Truck Parking Rest Areas (Central Florida Corridor)	Priority phases and costs are adopted in consistency with the updated FDOT Strategic Intermodal Systems (SIS) Plan.								Seminole Co. / Orange Co. / Osceola Co.
104	2	2.03	<div><div></div></div> 0	I-4	Osceola Pkwy	SR 528 / Beachline Expy	6.49	Ultimate Configuration for General Use and Managed Lanes									Orange Co.
102	3	2.22	<div><div></div></div> 0	I-4	SR 528 / Beachline Expy	SR 535 / Kirkman Rd	3.66	Ultimate Configuration for General Use and Managed Lanes									Orlando / Orange Co.
105	4	1.82	<div><div></div></div> 0	I-4	SR 434	Seminole / Volusia CL	10.88	Ultimate Configuration for General Use and Managed Lanes									Seminole Co. 8
EC232	5	2.60	N/A	I-4	E of SR 535	W of SR 535	0.85	Interchange Improvements									Orange Co.
EC229	6	2.31	N/A	I-4	at Sand Lake Road	-	0.30	Interchange Conversion to Diverging Diamond Interchange									Orange Co.
101	7	2.20	N/A	I-4	SR 535 / Kirkman Rd	E of SR 434	18.15	Ultimate Configuration for General Use and Managed Lanes									Seminole Co. / Orange Co.

Interstate Highway System + Strategic Intermodal System + National Highway Freight Network Projects - Continued

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
103	8	2.16	N/A	I-4	Polk / Osceola CL	Osceola Pkwy	7.74	Ultimate Configuration for General Use and Managed Lanes	Priority phases and costs are adopted in consistency with the updated FDOT Strategic Intermodal Systems (SIS) Plan.								Osceola Co.
EC230	9	1.84	N/A	I-4	W of Central Florida Pkwy	W of SR 528	1.45	Add New WB Single Buffer Separated Exp Lane									Orange Co.
EC231	10	1.84	N/A	I-4	E of SR 528	W of SR 528	0.65	Interchange Improvements									Orange Co.
2255	11	1.45	N/A	SR 60	Grape Hammock Rd (Polk Co.)	E of Kissimmee River Bridge (Osceola Co.)	1.76	Widen from 2 to 4 lanes									Osceola Co. / Polk Co.
108	12	1.60	-7	I-4	Seminole / Volusia CL	SR 472	9.29	Ultimate Configuration for General Use and Managed Lanes									Volusia Co.
109	13	1.61	-7	I-4	US 27	Polk / Osceola CL	2.86	Ultimate Configuration for General Use and Managed Lanes									Polk Co.

State Highway System / State Road Projects

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
-	-	-	-	Regional TSM&O Projects on the National and State Roadway System. Projects may include multiple locations and expenses such as detection equipment, signal cabinets, CAV technology, and other eligible equipment as identified by the TSM&O Advisory Committee in consultation with FDOT.			N/A	TSM&O / ITS Improvements	N/A	\$ 2.000						\$ 18.000	FDOT-D5 in coordination w/ MetroPlan Orlando
2211	1	3.33	8	SR 50 / Colonial Dr	Chuluota Rd	SR 520	3.22	Widen from 4 to 6 lanes	CST	\$ 21.734					✓	\$ 21.734	Orange Co.
2090	2	2.91	35	SR 50 / Colonial Dr	SR 408	Chuluota Rd	3.80	Widen from 4 to 6 lanes and Safety Improvements	PD&E	\$ 3.080			✓	✓	✓	\$ 67.503	Orange Co.
2210	3	2.34	55	SR 526 / Robinson St	Rosalind Ave	Maguire Blvd	1.89	Complete Streets	PE	\$ 3.000					✓	\$ 12.918	Orlando / Orange Co.
2252	4	3.24	-2	SR 535 / S. Apopka-Vineland Rd	US 192	SR 536 / World Center Dr	2.04	Widen from 4 to 6 lanes	PE	\$ 3.769				✓	✓	\$ 31.372	Orange Co. / Osceola Co.
2207	5	2.63	-2	US 17/92	Polk / Osceola CL	Poinciana Blvd	4.53	Widen from 2 to 4 lanes	ROW	\$ 22.582					✓	\$ 41.400	Osceola Co.
2251	6	2.52	-2	SR 434	Franklin St.	SR 417	2.30	Complete Streets w/Shared Use Path	CST	\$ 16.666						\$ -	Oviedo / Winter Park / Seminole Co.
2250	7	3.59	-6	US 17/92 / John Young Pkwy	Pleasant Hill Rd	Portage St	2.37	Widen from 4 to 6 lanes w/Urban Interchange	ROW	\$ 30.720					✓	\$ 54.624	Kissimmee / Osceola Co.
2006	8	2.91	98	US 17/92	Nottingham St	Monroe St	1.93	Construct Medians / Improve Bike/Ped	CST	\$ 18.200						\$ -	Winter Park / Orange Co.
2253	9	3.70	11	SR 535	SR 536 / World Center Dr.	I-4	1.42	Complete Streets / Safety / Ops	CST	\$ 4.937						\$ -	Orange Co.
2142	10	3.56	-5	US 17/92	S of W 27th St	W 25th St	0.77	Complete Streets	PE	\$ 1.215				✓	✓	\$ 7.658	Sanford / Seminole Co.
2200	11	3.47	-1	SR 551 / Goldenrod Rd	SR 408	SR 50 / Colonial Dr	1.86	Widen from 4 to 6 lanes	PD&E	\$ 1.512			✓	✓	✓	\$ 33.140	Orange Co.
2204	12	2.98	41	SR 551 / Goldenrod Rd	Beatty Dr	Pershing Ave	1.03	Widen from 4 to 6 lanes	PD&E	\$ 0.835			✓	✓	✓	\$ 18.297	Orange Co.
2203	13	2.83	111	SR 551 / Goldenrod Rd	SR 552 / Curry Ford Rd	SR 408	1.84	Widen from 4 to 6 lanes	PD&E	\$ 1.754			✓	✓	✓	\$ 41.303	Orange Co.

State Highway System / State Road Projects - Continued

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
2205	14	2.71	<div>▲ 86</div>	SR 551 / Goldenrod Rd	Pershing Ave	SR 552 / Curry Ford Rd	1.21	Widen from 4 to 6 lanes	PD&E	\$ 0.981			✓	✓	✓	\$ 21.493	Orange Co.
2201	15	2.67	<div>▲ 96</div>	SR 551 / Goldenrod Rd	SR 50 / Colonial Dr	University Blvd	2.00	Widen from 4 to 6 lanes	PD&E	\$ 1.625			✓	✓	✓	\$ 35.616	Orange Co.
2148	16	3.45	<div>▲ 1</div>	US 17/92	SR 417	SR 46 / 1st St	2.89	Complete Streets	PE	\$ 4.575				✓	✓	\$ 28.851	Sanford / Seminole Co.
2164	17	3.44	<div>▼ -1</div>	US 441/ Orange Blossom Trl	SR 451	Errol Pkwy	0.59	Complete Streets / Safety / Ops	PD&E	\$ 0.392			✓	✓	✓	\$ 8.592	Apopka / Orange Co.
2036	18	3.40	<div>▼ -6</div>	US 441 / Orange Blossom Trl	From WB SR 436	Alabama Ave	0.19	Complete Streets / Safety / Ops	PD&E	\$ 0.123			✓	✓	✓	\$ 3.349	Apopka / Orange Co.
2058	19	3.40	<div>▼ -6</div>	US 441 / Orange Blossom Trl	Alabama Ave	S Park Ave	0.46	Complete Streets / Safety / Ops	PD&E	\$ 0.306			✓	✓	✓	\$ 8.290	Apopka / Orange Co.
2152	20	3.38	<div>▼ -1</div>	US 441 / N Main St	US 192	Osceola Pkwy	2.26	Complete Streets	PD&E	\$ 1.192			✓	✓	✓	\$ 39.489	Kissimmee / Osceola Co.
2155	21	3.31	<div>▼ -13</div>	SR 438 / Silver Star Rd	SR 429	Bluford Ave	0.87	Complete Streets	PD&E	\$ 0.460			✓	✓	✓	\$ 10.569	Ocoee / Orange Co.
2192	22	3.06	<div>▲ 53</div>	SR 426 / Aloma Ave	SR 436 / Semoran Blvd	SR 551 / Palmetto Ave	1.19	Complete Streets / Safety / Ops	PD&E	\$ 0.782			✓	✓	✓	\$ 17.147	Orange Co.
2184	23	3.06	<div>■ 0</div>	SR 15 / Hoffner Ave	SR 436 / Semoran Blvd	SR 15 / Conway Rd	1.25	Complete Streets / Safety / Ops	PD&E	\$ 0.826			✓	✓	✓	\$ 22.399	Orange Co.
2120	24	3.06	<div>▲ 1</div>	US 192	Hoagland Blvd	John Young Pkwy	1.76	Safety Improvements	PE	\$ 1.026				✓	✓	\$ 7.027	Kissimmee / Osceola Co.
2062	25	3.05	<div>▲ 71</div>	SR 50 / Colonial Dr	Dean Rd	Rouse Rd	1.28	Operational / Safety	PE	\$ 1.207				✓	✓	\$ 7.611	Orange Co.
2047	26	2.99	<div>▲ 63</div>	US 17/92 / Orlando Ave	SR 426 / Fairbanks Ave	SR 423 / Lee Rd	0.88	Complete Streets / Safety / Ops	PD&E	\$ 0.583			✓	✓	✓	\$ 12.773	Winter Park / Orange Co.
2150	27	2.97	<div>▲ 5</div>	SR 434	Rangeline Rd	US 17/92	2.14	Complete Streets w/Shared Use Path	PD&E	\$ 1.412			✓	✓	✓	\$ 28.248	Longwood / Seminole Co.
2185	28	2.91	<div>▲ 19</div>	SR 552 / Curry Ford Rd	SR 15 / Conway Rd	SR 436 / Semoran Blvd	1.26	Complete Streets / Safety / Ops	PD&E	\$ 0.832			✓	✓	✓	\$ 18.240	Orlando / Orange Co.

State Highway System / State Road Projects - Continued

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
2118	29	2.90	-22	US 17/92 / John Young Pkwy	Palmetto Ave	US 17/92	1.46	Operational / Safety (Freight Bottleneck)	PE	\$ 0.868				✓	✓	\$ 5.475	Kissimmee / Osceola Co.
2195	30	2.88	39	SR 527 / Orange Ave	Holden Ave	Michigan St	1.26	Complete Streets / Safety / Ops	PD&E	\$ 0.833			✓	✓	✓	\$ 18.246	Orlando / Edgewood / Orange Co.
2115	31	2.83	32	SR 527 / Orange Ave	South St	SR 50 / Colonial Dr	1.02	Safety Improvements	PE	\$ 0.503				✓	✓	\$ 2.852	Orlando / Orange Co.
2167	32	2.83	55	SR 426 / Aloma Ave	Lakemont Ave	Mayflower Ct	0.51	Complete Streets / Safety / Ops	PD&E	\$ 0.336			✓	✓	✓	\$ 6.729	Winter Park / Orange Co.
2198	33	2.83	55	SR 426 / Aloma Ave	Mayflower Ct	SR 436 / Semoran Blvd	0.78	Complete Streets / Safety / Ops	PD&E	\$ 0.512			✓	✓	✓	\$ 10.238	Orange Co.
2188	34	2.80	83	SR 527 / Orange Ave	SR 426 / Fairbanks Ave	Park Ave	0.33	Complete Streets / Safety / Ops	PD&E	\$ 0.218			✓	✓	✓	\$ 4.773	Winter Park / Orange Co.
2165	35	2.79	86	SR 50 / Colonial Dr	Summerlin Ave	Bumby Ave	1.01	Complete Streets / Safety / Ops	PD&E	\$ 0.666			✓	✓	✓	\$ 14.587	Orlando / Orange Co.
2055	36	2.79	46	SR 435 / Kirkman Rd	Conroy Rd	Raleigh St	2.35	Operational / Safety	PE	\$ 2.210				✓	✓	\$ 13.934	Orlando / Orange Co.
2181	37	2.75	89	US 17/92/441 / Orange Blossom Trl	I-4	Washington St	2.30	Complete Streets	PD&E	\$ 1.212			✓	✓	✓	\$ 27.827	Orlando / Orange Co.
2132	38	2.75	69	SR 438 / Silver Star Rd	Pine Hills Rd	Hiawassee Rd	1.49	Operational / Safety	PE	\$ 1.065				✓	✓	\$ 6.035	Orange Co.
2189	39	2.75	70	US 17/92 / Mills Ave	Virginia Dr	Princeton St	0.43	Complete Streets / Safety / Ops	PD&E	\$ 0.284			✓	✓	✓	\$ 5.686	Orlando / Orange Co.
2168	40	2.75	80	SR 50 / Colonial Dr	SR 527 / Orange Ave	Summerlin Ave	0.64	Complete Streets	PD&E	\$ 0.338			✓	✓	✓	\$ 7.415	Orlando / Orange Co.
2033	41	2.74	82	SR 434	Wekiva Springs Rd	I-4	0.97	Operational / Safety	ROW	\$ 1.819					✓	\$ 3.915	Seminole Co.
2178	42	2.74	38	US 17/92/411 / Orange Blossom Trl	Washington St	SR 50 / Colonial Dr	0.66	Complete Streets	PD&E	\$ 0.346			✓	✓	✓	\$ 7.582	Orlando / Orange Co.
2194	43	2.74	23	SR 15 / Hoffner Ave	SR 551 / Goldenrod Rd	SR 436 / Semoran Blvd	1.39	Complete Streets	PD&E	\$ 0.732			✓	✓	✓	\$ 19.867	Orlando / Orange Co.

State Highway System / State Road Projects - Continued

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
2158	44	2.72	<div>23</div>	SR 482 / Sand Lake Rd.	US 17/92/441 / Orange Blossom Trl	SR 527 / Orange Ave	2.26	Complete Streets	PD&E	\$ 1.192			✓	✓	✓	\$ 26.122	Orange Co.
2022	45	2.70	<div>-30</div>	US 441 / Orange Blossom Trl	at Plymouth Sorrento Rd	-	0.40	Operational / Safety	PE	\$ 0.373				✓	✓	\$ 2.349	Orange Co.
2145	46	2.68	<div>56</div>	SR 434	Maitland Blvd	SR 436	1.77	Complete Streets / Safety / Ops	PD&E	\$ 1.170			✓	✓	✓	\$ 25.640	Altamonte Springs / Seminole Co.
2030	47	2.67	<div>-19</div>	US 441 / Orange Blossom Trl	at Lake View Dr	-	0.40	Operational / Safety	PE	\$ 0.373				✓	✓	\$ 2.349	Orange Co.
2172	48	2.65	<div>90</div>	SR 527 / Orange Ave	Michigan St	Gore Ave	1.25	Complete Streets / Safety / Ops	PD&E	\$ 0.826			✓	✓	✓	\$ 16.527	Orlando / Orange Co.
2098	49	2.61	<div>96</div>	SR 50 / Colonial Dr	Fairvilla Rd	Bunby Ave	4.87	Safety Improvements	PE	\$ 2.410				✓	✓	\$ 15.199	Orlando / Orange Co.
2154	50	2.58	<div>75</div>	SR 50 / Colonial Dr	Bunby Ave	Old Cheney Hwy	1.90	Complete Streets / Safety / Ops	PD&E	\$ 1.251			✓	✓	✓	\$ 27.426	Orlando / Orange Co.
2179	51	2.55	<div>68</div>	SR 50 / Colonial Dr	US 441 / Orange Blossom Tr	SR 527 / Orange Ave	1.00	Complete Streets / Safety / Ops	PE	\$ 1.980				✓	✓	\$ 8.250	Orlando / Orange Co.
2144	52	2.54	<div>105</div>	SR 434	Research Pkwy	McCulloch Rd	1.68	Complete Streets / Safety / Ops	PD&E	\$ 1.109			✓	✓	✓	\$ 24.307	Orange Co.
2131	53	2.54	<div>65</div>	SR 50 / Colonial Dr	Kirkman Rd	Tampa Ave	3.10	Safety Improvements	PE	\$ 1.163				✓	✓	\$ 6.588	Orlando / Orange Co.
21620	54	2.49	<div>-9</div>	SR 527 / Orange Ave	US 17/92	SR 426 / Fairbanks Ave	0.74	Complete Streets	PD&E	\$ 0.296			✓	✓	✓	\$ 5.928	Winter Park / Orange Co.
2162	55	2.49	<div>-10</div>	SR 527 / Orange Ave	Clay St	US 17/92	0.68	Safety Improvements	PD&E				✓	✓	✓	\$ 1.700	Orlando / Winter Park / Orange Co.
2190	56	2.48	<div>54</div>	SR 426 / Aloma Ave	Goldenrod Rd	Orange / Seminole CL	0.17	Complete Streets w/Shared Use Path	PD&E	\$ 0.113			✓	✓	✓	\$ 2.256	Orange Co.
2176	57	2.44	<div>-21</div>	SR 15 / Narcoossee Rd	Lee Vista Blvd	SR 551 / Goldenrod Rd	1.17	Complete Streets	PD&E	\$ 0.620			✓	✓	✓	\$ 13.585	Orlando / Orange Co.
2169	58	2.42	<div>85</div>	SR 426 / Fairbanks Ave	I-4	Clay St	0.59	Complete Streets / Safety / Ops	PD&E	\$ 0.391			✓	✓	✓	\$ 8.575	Winter Park / Orange Co.

State Highway System / State Road Projects - Continued

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
2173	59	2.42	2	SR 426 / Fairbanks Ave	Clay St	US 17/92 / Orlando Ave	0.50	Complete Streets / Safety / Ops	PD&E	\$ 0.331			✓	✓	✓	\$ 7.258	Winter Park / Orange Co.
2161	60	2.33	-21	SR 426 / Fairbanks Ave	US 17/92	Pennsylvania Ave	0.50	Complete Streets / Safety / Ops	PD&E	\$ 0.332			✓	✓	✓	\$ 7.266	Winter Park / Orange Co.
2010	61	2.34	-26	SR 15 / Narcoossee Rd	Goldenrod Rd	SR 528	2.58	ITS/Technology	PE	\$ 0.765					✓	\$ 3.293	Orlando / Orange Co.
2166	62	2.34	84	SR 50 / Colonial Dr	Tampa Ave	US 441 / Orange Blossom Trl	0.61	Complete Streets / Safety / Ops	PE	\$ 1.211				✓	✓	\$ 7.634	Orlando / Orange Co.
2170	63	2.29	28	SR 15 / Lake Underhill Rd	SR 15 / Conway Rd	SR 15 / Anderson St	0.84	Complete Streets / Safety / Ops	PD&E	\$ 0.558			✓	✓	✓	\$ 12.222	Orlando / Orange Co.
2193	64	2.27	80	US 17/92 / Mills Ave	SR 50 / Colonial Dr	Virginia Dr	0.75	Complete Streets / Safety / Ops	PD&E	\$ 0.495			✓	✓	✓	\$ 8.620	Orlando / Orange Co.
2031	65	2.25	71	SR 426 / Aloma Ave	Palmetto Ave	Hall Rd	0.64	Operational / Safety	PE	\$ 0.603				✓	✓	\$ 3.419	Seminole Co.
2153	66	2.20	83	SR 527 / Orange Ave	SR 50 / Colonial Dr	Princeton St	1.44	Complete Streets / Safety / Ops	PE	\$ 2.859				✓	✓	\$ 18.029	Orlando / Orange Co.
2175	67	2.07	66	SR 15 / Mills Ave	SR 526 / Robinson St	SR 50 / Colonial Dr	0.50	Complete Streets / Safety / Ops	PD&E	\$ 0.333			✓	✓	✓	\$ 6.652	Orlando / Orange Co.
2163	68	2.03	59	SR 527 / Orange Ave	Gem St	Kelsey Rd	1.55	Complete Streets / Safety / Ops	PD&E	\$ 1.198			✓	✓	✓	\$ 28.207	Edgewood / Orange Co.
2182	69	1.85	60	SR 527 / Orange Ave	End of One-Way Split	Holden Ave	0.74	Complete Streets / Safety / Ops	PD&E	\$ 0.575			✓	✓	✓	\$ 13.552	Edgewood / Orange Co.
2187	70	1.83	91	SR 482 / Sand Lake Rd	Kirkman Rd	SR 423 / John Young Pkwy	1.86	Complete Streets	PD&E	\$ 0.981			✓	✓	✓	\$ 21.494	Orange Co.
2038	71	1.50	92	SR 414 / Maitland Blvd	Maitland Ave	US 17/92	0.57	Operational / Safety	PE	\$ 0.537				✓	✓	\$ 3.044	Orange Co.
2112	72	1.48	86	SR 527 / Orange Ave	Holden Ave	Gatin Ave	0.07	Safety Improvements	PE	\$ 0.388				✓	✓	\$ 10.127	Edgewood / Orange Co.

Off System Construction Assistance / TRIP Projects (TMA-SU Funds w/ TRIP)

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
8141	-	2.71	N/A	Old Lake Wilson Rd	Sinclair Rd	CR 532	2.49	Widen to 4 Lanes with Median	CST	\$30.084						\$ -	Osceola Co.
7423	-	2.34	N/A	Econlockhatchee Trl	Lee Vista Blvd	Curry Ford Rd	2.33	Widen to 4 Lanes with Shared Use Path	CST	\$26.298						\$ -	Orlando / Orange Co.
7567	-	N/A	N/A	President Barack Obama Pkwy - Phase 2	Metrowest Blvd	Raleigh St	0.82	New 4 Lane Roadway	CST	\$14.026						\$ -	Orlando / Orange Co.
8001	-	2.76	N/A	Canoe Creek Rd	Pine Tree Dr	US 192/441 / 13th St	3.321	Widen from 2 to 4 lanes	CST	\$40.134						\$ -	St. Cloud / Osceola Co.
8002	-	3.15	N/A	Canoe Creek Rd	Deer Run Rd	Pine Tree Dr	1.34	Widen from 2 to 4 lanes	CST	\$16.250						\$ -	St. Cloud / Osceola Co.
7371	-	1.90	N/A	Kelly Park Rd	Round Lake Rd	Plymouth Sorrento Rd	2.04	Widen to 4 Lanes with Shared Use Path	CST	\$18.611						\$ -	Apopka / Orange Co.
N/A	-	N/A	N/A	Winter Park Drive Bicycle/Pedestrian Improvements (Bundled)	At Queens Mirror, Crystal Bowl and Wilshire Dr.	-	1.00	Reconstruction with TSMO, Bike & Pedestrian Improvements	CST	\$4.219						\$ -	Casselberry / Seminole Co.
N/A	-	N/A	N/A	Kelly Park Rd	Golden Gem Rd	Jason Dwelley Rd	2.08	Widen to 4 Lanes with Shared Use Path	CST	\$4.000						\$ -	Apopka / Orange Co.

Complete Streets Projects (TMA-SU + TALU Funds)

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)				Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	CST		
-	-	-	-	MetroPlan Orlando UPWP for Special Projects: \$1,000,000 a year from 2026 to 2045 of TMA funds to support performance-based planning, data collection and monitoring, corridor and sub-area planning and feasibility studies.				N/A	Regionwide Special Studies	N/A	\$ 1.000				\$ 19.000	MetroPlan Orlando
4011	1	2.60	7	Winter Park Dr	Red Bug Lake Rd	SR 434	3.75	Complete Streets / Safety / Ops	CST	\$ 6.906					\$ -	Casselberry / Seminole Co.
4019	2	3.11	1	Old Dixie Highway	Vick Rd	Hawthorne Ave	0.67	Complete Streets	PD&E	\$ 0.353			✓	✓	\$ 6.414	Apopka / Orange Co.
4006	3	2.71	2	S Park Ave / Clarcona Rd	US 441 / Main St	Cleveland St	1.26	Complete Streets	PD&E	\$ 0.668			✓	✓	\$ 7.791	Apopka / Orange Co.
1807	4	2.60	N/A	Goldsboro Community Gateway	SR 46	Persimmon Ave / 8th St	0.50	New 2 Lane Roadway / Complete Streets	PD&E	\$ 0.255			✓	✓	\$ 4.967	Sanford / Seminole Co.
4004	5	2.51	-3	E Church Ave	N Ronald Reagan Blvd	US 17/92	1.18	Complete Streets w/Shared Use Path	CST	\$ 4.916					\$ -	Longwood / Seminole Co. 15
4007	6	2.51	-2	W Michael Gladden Blvd	S Park Ave	Bradshaw Rd	0.70	Complete Streets	PD&E	\$ 0.369			✓	✓	\$ 6.097	Apopka / Orange Co.
4012	7	2.42	-6	N Central Ave	Martin Luther King Blvd	W Donegan Ave	1.51	Complete Streets	CST	\$ 4.937					\$ -	Kissimmee / Osceola Co.
4005	8	2.26	2	W Gore St	S Rio Grande Ave.	Delaney Ave	1.61	Complete Streets	PD&E	\$ 0.852			✓	✓	\$ 8.833	Orlando / Orange Co.
4020	9	2.11	0	Poinciana Blvd	Lizzia Brown Rd	Trafalgar Blvd	0.99	Complete Streets	PD&E	\$ 0.522			✓	✓	\$ 7.862	Osceola Co.
4014	10	1.59	-3	North St Phase I	Raymond Ave.	Palm Springs Dr.	0.75	Complete Streets	PE	\$ 1.395				✓	\$ 4.615	Seminole Co.

TSM&O + ITS Projects (TMA-SU + TALU Funds)

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
B23	1	3.45	N/A	Pine St	S Hughey Ave	S Rosalind Ave	0.42	Operational / Safety	PE	\$ 0.302				✓	✓	\$ 1.714	Orlando / Orange Co.
B23	1	3.45	N/A	Washington St	N Garland Ave	N Rosalind Ave	0.36	Operational / Safety	PE	\$ 0.259				✓	✓	\$ 1.470	Orlando / Orange Co.
3052	2	3.22	N/A	Kaley Ave	I-4	Orange Ave S	0.69	ITS/Technology	PE	\$ 0.155				✓	✓	\$ 0.567	Orlando / Orange Co.
B24	3	3.21	N/A	Church St	Orange Blossom Trl	S Division Ave	0.75	ITS/Technology	PE	\$ 0.169				✓	✓	\$ 0.618	Orlando / Orange Co.
B24	3	3.21	N/A	Church St	John Young Pkwy	S Orange Blossom Trl	0.99	ITS/Technology	PE	\$ 0.222				✓	✓	\$ 0.815	Orlando / Orange Co.
B24	3	3.21	N/A	Church St	Hughey Ave	S Rosalind Ave	0.55	ITS/Technology	PE	\$ 0.124				✓	✓	\$ 0.455	Orlando / Orange Co.
B46	4	2.98	N/A	Lawrence Silas Blvd	Neptune Rd	E Oak St	0.42	ITS/Technology	PE	\$ 0.094				✓	✓	\$ 0.345	Kissimmee / Osceola Co.
B46	4	2.98	N/A	Neptune Rd	Partin Settlement Rd	Lakeshore Blvd	2.40	ITS/Technology	PE	\$ 0.540				✓	✓	\$ 1.979	Kissimmee / Osceola Co.
B27	5	2.84	N/A	S Garland Ave	W Robinson St	SR 50 / Colonial Dr	0.51	ITS/Technology	PE	\$ 0.115				✓	✓	\$ 0.421	Orlando / Orange Co.
B27	5	2.84	N/A	Garland Ave	South St	W Washington St	0.38	Operational / Safety	PE	\$ 0.269				✓	✓	\$ 1.526	Orlando / Orange Co.
B5	6	2.74	N/A	Rosamond Dr	N Lake Orlando Pkwy	N Orange Blossom Trl	0.36	ITS/Technology	PE	\$ 0.081				✓	✓	\$ 0.296	Orlando / Orange Co.
B5	6	2.74	N/A	All American Blvd	Edgewater Dr	Forest City Rd	0.56	ITS/Technology	PE	\$ 0.125				✓	✓	\$ 0.458	Orange Co.
B25	7	2.70	N/A	W South St	S Rio Grande Ave	S Division Ave	1.00	ITS/Technology	PE	\$ 0.226				✓	✓	\$ 0.827	Orlando / Orange Co.
B25	7	2.70	N/A	W Anderson St	US 17/92/441 / Orange Blossom Trl	S Division Ave	0.75	ITS/Technology	PE	\$ 0.169				✓	✓	\$ 0.621	Orlando / Orange Co.
B22	8	2.69	N/A	Livingston St	N Parramore Ave	Highland Ave	0.94	ITS/Technology	PE	\$ 0.212				✓	✓	\$ 0.777	Orlando / Orange Co.
B22	8	2.69	N/A	Livingston St	Highland Ave	Mills Ave N	0.58	ITS/Technology	PE	\$ 0.130				✓	✓	\$ 0.476	Orlando / Orange Co.

TSM&O + ITS Projects (TMA-SU + TALU Funds) - Continued

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
B30	9	2.60	N/A	Lakeview Ave	Plant St	Fullers Cross Rd	2.07	ITS/Technology	PE	\$ 0.467				✓	✓	\$ 1.711	Winter Garden / Orange Co.
B30	9	2.60	N/A	Story Rd	Plant St W	Dillard St S	1.24	ITS/Technology	PE	\$ 0.280				✓	✓	\$ 1.025	Winter Garden / Orange Co.
B30	9	2.60	N/A	Lakeview Ave	Story Rd	E Plant St	0.48	ITS/Technology	PE	\$ 0.109				✓	✓	\$ 0.399	Winter Garden / Orange Co.
B41	10	2.50	N/A	Turnbull Dr	Semorán Blvd S	Commander Dr	0.19	ITS/Technology	PE	\$ 0.044				✓	✓	\$ 0.160	Orlando / Orange Co.
B41	10	2.50	N/A	Commander Dr	Hoffner Rd	Turnbull Dr	0.31	ITS/Technology	PE	\$ 0.069				✓	✓	\$ 0.253	Orlando / Orange Co.
B41	10	2.50	N/A	Commander Dr	Turnbull Dr	Gatlin Ave	0.72	ITS/Technology	PE	\$ 0.163				✓	✓	\$ 0.598	Orlando / Orange Co.
B41	10	2.50	N/A	Commander Dr	Gatlin Ave	Pershing Ave	0.25	ITS/Technology	PE	\$ 0.057				✓	✓	\$ 0.208	Orlando / Orange Co.
B33	11	2.22	N/A	Carrier Dr	International Dr	S Kirkman Rd	0.78	ITS/Technology	PE	\$ 0.176				✓	✓	\$ 0.644	Orlando / Orange Co.
B33	11	2.22	N/A	Carrier Dr	South Kirkman Rd	Grand National Dr	0.15	ITS/Technology	PE	\$ 0.033				✓	✓	\$ 0.122	Orlando / Orange Co.
B33	11	2.22	N/A	Mandarin Dr	W Sand Lake Rd	Vanguard St	0.77	ITS/Technology	PE	\$ 0.173				✓	✓	\$ 0.635	Orange Co.
3063	12	2.20	N/A	Amelia St	Parramore Ave	Highland Ave	0.94	ITS/Technology	PE	\$ 0.211				✓	✓	\$ 0.775	Orlando / Orange Co.
B26	13	2.19	N/A	S Hughey Ave	W South St	W Washington St	0.38	ITS/Technology	PE	\$ 0.086				✓	✓	\$ 0.314	Orlando / Orange Co.
B26	13	2.19	N/A	Hughey Ave	Robinson St	W Colonial Dr	0.51	Operational / Safety	PE	\$ 0.361				✓	✓	\$ 2.043	Orlando / Orange Co.
3261	14	2.19	N/A	John Young Pkwy	Sand Lake Rd	Hunters Creek Blvd	6.86	ITS/Technology	PE	\$ 1.544				✓	✓	\$ 5.662	Orange Co.
3061	15	1.96	N/A	Amelia St	Orange Blossom Trl	N Parramore Ave	0.50	ITS/Technology	PE	\$ 0.114				✓	✓	\$ 0.416	Orlando / Orange Co.

Pedestrian and Bicycle Infrastructure Projects (TMA-SU + TAILU + SunTrail Funds)

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phases(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
5012	N/A	-	N/A	Pine Hills Trail Phase 3 (SunTrail Program / Coast to Coast)	Orange / Seminole CL	Clarcona Ocoee Rd	2.55	Shared Use Path	SunTrail		✓	✓	✓	✓	✓	\$ 10.440	Orange Co.
5013	N/A	-	N/A	Clarcona-Ocoee Connector (SunTrail Program / Coast to Coast)	N Hiawassee Rd	Pine Hills Trail	1.30	Shared Use Path	SunTrail		✓	✓	✓	✓	✓	\$ 5.351	Orange Co.
5076	1	-	6	Shingle Creek Trail Phase 4	Alhambra Dr	Old Winter Garden Rd	1.56	Shared Use Path	PE	\$ 0.725				✓	✓	\$ 5.436	Orange Co.
5024	2	-	1	Downtown Gap - Pine Street	Garland Ave	Summerlin Ave	1.10	Shared Use Path	CST	\$ 2.567							Orlando / Orange Co.
5077	3	-	5	West Orange Trail Phase 4	Kelly Park / Rock Springs	W Lester Rd	9.31	Shared Use Path	PE	\$ 3.081				✓	✓	\$ 11.396	Apopka / Orange Co.
5009	4	-	0	Shingle Creek Trail (Yates Connector, Phase 2B)	Pleasant Hill Rd	Toho Vista	2.05	Shared Use Path	PE	\$ 0.814				✓	✓	\$ 5.132	Kissimmee / Osceola Co.
5075	5	-	0	Shingle Creek Trail (Phase 2C North)	Osceola Pkwy Overpass	Orange / Osceola CL	10.68	Shared Use Path	PE	\$ 1.121				✓	✓	\$ 7.460	Kissimmee / Orange Co. / Osceola Co.

School Mobility / Safe Routes to School Projects (TMA-SU + TALU Funds)

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
N/A	1	N/A	<div><div></div>1</div>	Hickory Tree Elementary School	Oakwind Ct, Beachwood & Englewood		-	Safe Routes to School	PE	TBD					✓	\$ 0.197	Osceola Co.
N/A	2	N/A	<div><div></div>-1</div>	Laurel Ave / KOA Elementary	KOA St.	Berkshire Rd	-	Safe Routes to School	PE	TBD					✓	\$ 0.066	Osceola Co.
N/A	3	N/A	<div><div></div>0</div>	Longwood Elementary School	N. Grant & Orange Ave.	Highland Street & Logan	-	Safe Routes to School	PE	TBD					✓	\$ 1.670	Seminole Co.
N/A	4	N/A	<div><div></div>0</div>	Midway Area Sidewalks	Spiar Ave	Beardall Ave	-	Safe Routes to School	PE	TBD					✓	\$ 0.369	Seminole Co.
N/A	5	N/A	<div><div></div>0</div>	Reedy Creek Elementary School	Trafalgar Blvd & Pleasant Hill Rd	Lizzia Brown Rd	-	Safe Routes to School	PE	\$ 0.146					✓	\$ 0.553	Osceola Co.

Regional Transit Projects (TMA-SU + DDR + FTA Funds)

MTP ID	PPL Rank	Transit Category	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Implementing Agency
										PLN	TCAR	PD	ROW + CST	OPS		
5001	1	D	LYNX Capital Expenses & Transit Asset Management (Vehicles, Facilities, Passenger Amenities, Support Equipment, Technology, Safety & Security, LYMMO SGR)			-	-	Capital	\$ 430.79						\$ 470.79	LYNX - Region Wide
5002	2	A				-	Rail Connection from Orlando International Airport to SunRail Meadow Woods Station	TCAR	\$ 7.00			✓	✓	✓	\$ 294.95	FDOT
5003	3	B	LYNX - Southern Operations & Maintenance Facility			-	Per LYNX's Route Optimization Study (ROS), LYNX must acquire an additional operations and maintenance facility to support its growing fleet. This facility will house, refuel, and maintain CNG buses, ACCESS LYNX, Neighborlink, and VanPool Vehicles. It will have vehicle capacity for storing 60' articulated buses on the property to improve operational efficiencies.	ROW & CST	\$ 92.40						-	LYNX
5004	4	C				-	New Northern Operations base for System Expansion	PE	\$ 2.10			✓	✓	✓	\$ 39.75	LYNX
5005	5	C	SunRail - Meadow Woods Station Parking Expansion			-	Parking Expansion	CST	\$ 24.22						-	SunRail
5006	6	C	SunRail - Tupperware Station Parking Expansion			-	Parking Expansion	CST	\$ 30.24						-	SunRail
5007	7	C	SunRail - Poinciana Station Parking Expansion			-	Parking Expansion	CST	\$ 5.32						-	SunRail

School Mobility / Safe Routes to School Projects (TMA-SU + TALU Funds)

MTP ID	PPL Rank	2022 Network Score	Change in Rank from 2021	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Jurisdiction(s)
											PLN	PDE	PE	ROW	CST		
N/A	1	N/A	<div><div></div>1</div>	Hickory Tree Elementary School	Oakwind Ct, Beachwood & Englewood		-	Safe Routes to School	PE	TBD					✓	\$ 0.197	Osceola Co.
N/A	2	N/A	<div><div></div>-1</div>	Laurel Ave / KOA Elementary	KOA St.	Berkshire Rd	-	Safe Routes to School	PE	TBD					✓	\$ 0.066	Osceola Co.
N/A	3	N/A	<div><div></div>0</div>	Longwood Elementary School	N. Grant & Orange Ave.	Highland Street & Logan	-	Safe Routes to School	PE	TBD					✓	\$ 1.670	Seminole Co.
N/A	4	N/A	<div><div></div>0</div>	Midway Area Sidewalks	Spiar Ave	Beardall Ave	-	Safe Routes to School	PE	TBD					✓	\$ 0.369	Seminole Co.
N/A	5	N/A	<div><div></div>0</div>	Reedy Creek Elementary School	Trafalgar Blvd & Pleasant Hill Rd	Lizzia Brown Rd	-	Safe Routes to School	PE	\$ 0.146					✓	\$ 0.553	Osceola Co.

Regional Transit Projects (TMA-SU + DDR + FTA Funds)

MTP ID	PPL Rank	Transit Category	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Implementing Agency
										PLN	TCAR	PD	ROW + CST	OPS		
5001	1	D	LYNX Capital Expenses & Transit Asset Management (Vehicles, Facilities, Passenger Amenities, Support Equipment, Technology, Safety & Security, LYMMO SGR)			-	-	Capital	\$ 430.79						\$ 470.79	LYNX - Region Wide
5002	2	A				-	Rail Connection from Orlando International Airport to SunRail Meadow Woods Station	TCAR	\$ 7.00			✓	✓	✓	\$ 294.95	FDOT
5003	3	B	LYNX - Southern Operations & Maintenance Facility			-	Per LYNX's Route Optimization Study (ROS), LYNX must acquire an additional operations and maintenance facility to support its growing fleet. This facility will house, refuel, and maintain CNG buses, ACCESS LYNX, Neighborlink, and VanPool Vehicles. It will have vehicle capacity for storing 60' articulated buses on the property to improve operational efficiencies.	ROW & CST	\$ 92.40						-	LYNX
5004	4	C				-	New Northern Operations base for System Expansion	PE	\$ 2.10			✓	✓	✓	\$ 39.75	LYNX
5005	5	C	SunRail - Meadow Woods Station Parking Expansion			-	Parking Expansion	CST	\$ 24.22						-	SunRail
5006	6	C	SunRail - Tupperware Station Parking Expansion			-	Parking Expansion	CST	\$ 30.24						-	SunRail
5007	7	C	SunRail - Poinciana Station Parking Expansion			-	Parking Expansion	CST	\$ 5.32						-	SunRail

Regional Transit Projects (TMA-SU + DDR + FTA Funds) - Continued

MTP ID	PPL Rank	Transit Category	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Implementing Agency
										PLN	TCAR	PD	ROW + CST	OPS		
5008	8	C	LYNX - Service Enhancements - Phase I			-	300 - UCF - Downtown Regional Express; 302 - OIA - Disney Springs Regional Express; 303 - OIA / Florida Mall / Universal Studios Regional Express; 306 - Downtown - Universal Studios Regional Express; 307 - Downtown-S. I-Drive Regional Express; 308 - Downtown - Disney Springs Regional Express; 311B - UCF - Medical City/Lake Nona - Meadow Woods Regional Express; 312 - Ocoee - Disney Regional Express; 313 - Pine Hills / Disney Regional Express; 314 - S.R. 436 / Disney Regional Express; 505A - John Young Parkway; 505B - John Young Parkway; 506 - Lake Underhill - UCF; 517 - S. I-Drive / Disney Springs; 518 - OIA-MDW SunRail	Capital	\$ 3.26					⌵	-	LYNX
5009	9	C	LYNX - Service Enhancements - Phase II			-	100-A1 - AMS - MILLS AVE/U.S. 17-92; 102A - N. U.S. 441/Apopka; 102B - S. U.S. 441/Fla Mall; 103 - Silver Star Road; 105 - Pine Hills / Kirkman / Universal; 200-A1 - AMS - N U.S. 17/92 Limited Stop; 202 - U.S. 441 Limited Stop; 205 - Pine Hills/Kirkman Rd./Universal Limited Stop; 400 - Lake County Commuter Express; 401 - Waterford Lake Commuter Express; 500 - S.R. 434; 509 - Sand Lake Connector; 514 - Hiwassee Road / Turkey Lake Road; 519 - Winter Park - Downtown; 521 - Rosemont / Pine Hills Circulator; 610 - Maitland Connector; 616 - Maitland Center / Eatonville; 700 - Lymmo Orange - Downtown; 702 - Lymmo Grapefruit; 701 - Lymmo Lime; 703 - Lymmo Tangerine Line; 703a - Lymmo Orange - N. Quarter - Fla Hosp; 821 - E. Colonial Drive/Bithlo Flex Route/Hybrid; 866 - Waterford Lakes-Avalon Flex Zone.	Capital	\$ 5.21					⌵	-	LYNX

Regional Transit Projects (TMA-SU + DDR + FTA Funds) - Continued

MTP ID	PPL Rank	Transit Category	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Implementing Agency
										PLN	TCAR	PD	ROW + CST	OPS		
5008	8	C	LYNX - Service Enhancements - Phase I			-	300 - UCF - Downtown Regional Express; 302 - OIA - Disney Springs Regional Express; 303 - OIA / Florida Mall / Universal Studios Regional Express; 306 - Downtown - Universal Studios Regional Express; 307 - Downtown-S. I-Drive Regional Express; 308 - Downtown - Disney Springs Regional Express; 311B - UCF - Medical City/Lake Nona - Meadow Woods Regional Express; 312 - Ocoee - Disney Regional Express; 313 - Pine Hills / Disney Regional Express; 314 - S.R. 436 / Disney Regional Express; 505A - John Young Parkway; 505B - John Young Parkway; 506 - Lake Underhill - UCF; 517 - S. I-Drive / Disney Springs; 518 - OIA-MDW SunRail	Capital	\$ 3.26					✓	-	LYNX
5009	9	C	LYNX - Service Enhancements - Phase II			-	100-A1 - AMS - MILLS AVE/U.S. 17-92; 102A - N. U.S. 441/Apopka; 102B - S. U.S. 441/Fia Mall; 103 - Silver Star Road; 105 - Pine Hills / Kirkman / Universal; 200-A1 - AMS - N U.S. 17/92 Limited Stop; 202 - U.S. 441 Limited Stop; 205 - Pine Hills/Kirkman Rd./Universal Limited Stop; 400 - Lake County Commuter Express; 401 - Waterford Lake Commuter Express; 500 - S.R. 434; 509 - Sand Lake Connector; 514 - Hiwassee Road / Turkey Lake Road; 519 - Winter Park - Downtown; 521 - Rosemont / Pine Hills Circulator; 610 - Maitland Connector; 616 - Maitland Center / Eatonville; 700 - Lymmo Orange - Downtown; 702 - Lymmo Grapefruit; 701 - Lymmo Lime; 703 - Lymmo Tangerine Line; 703a - Lymmo Orange - N. Quarter - Fla Hosp; 821 - E. Colonial Drive/Bithlo Flex Route/Hybrid; 866 - Waterford Lakes-Avalon Flex Zone.	Capital	\$ 5.21					✓	-	LYNX

Regional Transit Projects (TMA-SU + DDR + FTA Funds) - Continued

MTP ID	PPL Rank	Transit Category	Roadway / Facility	From	To	Length (miles)	Project Type	Priority Phase	Phase Amount (in millions)	Remaining Phase(s)					Est. Cost of Remaining Phases (in millions)	Implementing Agency
										PLN	TCAR	PD	ROW + CST	OPS		
5010	10	C	LYNX - Service Enhancements - Phase III			-	Multiple Routes	Capital	\$ 18.51					✓	-	LYNX
5011	11	C	LYNX - Transit Facility Implementation - Phase I			-	LYNX Central Station (LCS) Modifications; Nemours Children's Hospital (Lake Nona) Transit Facility; Disney Springs Transit Center Improvements.	Capital	\$ 14.00						-	LYNX
5012	12	C	LYNX - Transit Facility Implementation - Phase II			-	Valencia College West Transit Center; Maitland SunRail Station Bus Facility Enhancement; Florida Mall Transit Center Expansion; Universal Studios Transit Center Expansion; Pine Hills Transit Center Expansion; Waterford Lakes/Avalon Town Center Transit Center/Transfer Facility/Turnback; Orlando Packing District development Transit Center; US 441 and Hunter's Creek Transit Turnback Facility; SR 436 and Curry Ford Rd Transit Center.	Capital	\$ 55.04						-	LYNX

Supplement B - Prioritization Criteria & Scoring Summary

Framework

This update to the annual process will continue to follow a funding program approach to project prioritization. Consistent with MetroPlan Orlando's 2045 MTP: Cost Feasible Plan and Transportation Improvement Program (TIP) funding categories and allocation policies, this method helps ensure funding eligibility and seamless implementation into FDOT's Five Year Work Program / State TIP.

Evaluation Criteria

MetroPlan Orlando's regional goals and objectives blended with the planning factors set forth in the federal FAST Act yielded 28 criteria, or scoring factors, consistent with board funding programs/policies, to serve as the basis for the comparative evaluation. In this way, new projects will be proposed, funded, and constructed, with their need and impacts measured for consistency with the 2045 MTP's goals and objectives. Although there are no "right" or "wrong" evaluation criteria, there are useful and less useful ones. The characteristics of good evaluation criteria are:

- Accurate and unambiguous, meaning that a clear and accurate relationship exists between the criteria and the real impacts/consequences;
- Comprehensive but concise, meaning that they cover the range of relevant consequences, but the evaluation framework remains systematic and manageable with no redundancies;
- Direct and ends-oriented, meaning they report directly on the consequences of interest and provide enough information that informed value judgments can reasonably be made;
- Measurable and consistently applied to allow comparisons across alternatives. This means the criteria should distinguish the relative degree of impact across alternatives. It does not exclude qualitative characterizations of impact, or impacts that can't be physically measured in the field;
- Understandable, in that impacts and trade-offs can be understood and communicated by everyone involved;
- Practical, meaning that information can practically be obtained to assess them (i.e., data, models or expert judgment exist or can be readily developed);
- Sensitive to the alternatives under consideration, so that they provide information that is useful in comparing alternatives; and
- Explicit about uncertainty so that they expose differences in the range of possible outcomes (differences in risk) associated with different policy or project alternatives.

Overview of Evaluation Criteria

Table B-1 outlines the project evaluation criteria to be considered. It should be noted that while priority programming determines the order in which projects are pursued, various factors such as available funding and the need for additional analysis or design can influence the order in which projects are implemented.

Table B-1 | Project Evaluation Criteria

Goal Area	Evaluation Criteria
Safety & Security	Crash Rate
	Fatal & Serious Injury Crash Rates
	Number of Pedestrian & Bicycle Crashes
	Evacuation Route Designation
Reliability & Performance	Travel Time Reliability (Auto)
	Unreliability on Constrained Corridor
	Fiber Optic Presence
	Segment Actively Monitored/Managed
	Relative Change: Future Congested Speeds
Access & Connectivity	Transit System Headways
	Population: ½ Mile of Non-Transit Corridor
	Jobs: ½ Mile of Non-Transit Corridor
	Food & Healthcare Locations: ½ Mile of Corridor
	Cultural & Recreational Locations: ½ Mile of Corridor
	Centrality Analysis Score (Critical Sidewalk Need)
Health & Environment	Bicycle Level of Traffic Stress
	Residential Density: ¼ Mile of Multimodal Facility
	Non-Residential Density: ¼ Mile of Multimodal Facility
	Public Health Indicator Rates
	Intensity & Proximity: Environmental Justice Populations
	Relative Change: Vehicle Miles Traveled
Investment & Economy	Percentage of Commercial Vehicle Traffic
	Statewide Truck Bottlenecks
	Intensity & Proximity: Freight Intensive Land Uses
	Relative Change: Vehicle Hours Traveled
	Cost Burdened Households: ¼ Mile of Corridor
	Percentage of Visitor Traffic
	Cost of Congestion

Source: MetroPlan Orlando 2045 MTP

Criteria and Scoring Logic

The criteria and scoring logic applied to the region’s corridors will provide a quantitative assessment that will serve as the foundation for project prioritization. This assessment will provide decision-makers with the best information available for qualitative reviews and will guide MetroPlan Orlando’s investments through a data-informed and performance-based process. The following section (Tables B-2 through B-6) provides an overview of the method, logic, and data source of the evaluation criteria. *Each component of the Criteria and Scoring Logic is summarized below:*

Performance Indicator

Defines the metric which was used to align with the objectives of each goal. This alignment is the basis of the quantitative assessment and will be used to identify needs and prioritize based on the performance.

Data Sources

Provides the source of each indicator used within the data model. An in-depth explanation of each of the data sources can be found in [Technical Series #2](#) of the adopted 2045 MTP.

Method

Includes a brief methodology of how each indicator was derived and/or assigned to the corridors within the data model.

Logic

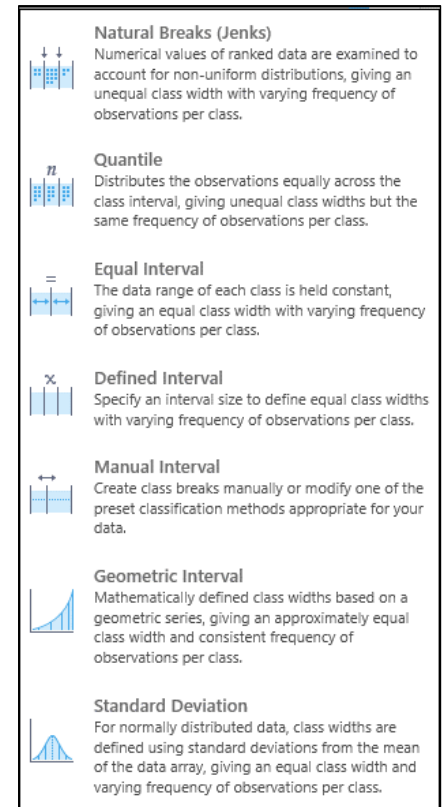
Ties the performance indicator back to the objective and explains the thought process on why the assessment will result in a priority need.

Scenario Planning

Shows the performance indicators which will be evaluated across all four of the 2045 MTP’s scenario alternatives. The evaluation across the alternative’s scenario is largely based on the timeframe of data and analyses of the indicators (existing versus future conditions).

Scoring Thresholds

To distribute the scores within the modeling process, individual buckets were identified per dataset, based on the regional analyses. The identification of these buckets can be done in a variety of ways based on statistical distribution of data, as shown at right. For this process, “Natural Breaks (Jenks)” were used to readily identify natural separation or “buckets” of data. These naturally occurring separators were also compared with standard deviation and quantile to verify that the natural breaks were indeed following a normalized approach. The individual values were rounded to the nearest whole number or decimal to present clear and logical buckets for each data set. Lastly, each performance indicator has a maximum value of 1 point. It should be noted that the number of indicators in each goal area will have an impact on the scoring of each indicator. For example, the four indicators in the Safety & Security Goal each comprise of 25% of the total goal score, whereas the five (5) indicators in the Reliability & Performance Goal each account for 20% of the total goal score. This process is necessary to equalize the scoring and limit goal areas with more performance indicators from skewing results.



Source: Microsoft, 2020

Table B-2 | Safety & Security Criteria and Scoring Logic

Performance Indicator	Description	Scoring Thresholds												
Crash Rate Rate of vehicular crashes per 100 million vehicle miles traveled <i>Source: Signal 4 Analytics (2016-2020)</i>	Method: Three-year crash rates were collected and assigned to each corridor within the data model. Logic: Corridors which exhibit high crash rates should be prioritized for improvements which eliminate the safety concerns. For example, a corridor with a crash rate over 6 indicates that its exposure to crashes has been higher than statewide averages for the past three years. <u>Greater the crash rate, greater the need, greater the point allocation.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 2</td><td>0</td></tr><tr><td>2.01 - 4</td><td>0.5</td></tr><tr><td>4.01 - 6</td><td>0.75</td></tr><tr><td>Over 6</td><td>1</td></tr></table> Unit: Rate	Range	Score	0 - 2	0	2.01 - 4	0.5	4.01 - 6	0.75	Over 6	1		
Range	Score													
0 - 2	0													
2.01 - 4	0.5													
4.01 - 6	0.75													
Over 6	1													
Fatal and Serious Injury Crash Rates Rate of crashes which result in a fatality or serious injury <i>Source: Signal 4 Analytics (2016-2020)</i>	Method: Three-year fatal and serious injury crash rates were collected and assigned to each corridor within the data model. Logic: Corridors which exhibit a high rate of crashes involving a fatality or serious injury should be prioritized for improvements which eliminate the safety concerns. <u>Greater the crash rate, greater the need, greater the point allocation.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0</td><td>0</td></tr><tr><td>0.01 - 1</td><td>0.25</td></tr><tr><td>1.01 - 3</td><td>0.50</td></tr><tr><td>3.01 - 5</td><td>0.75</td></tr><tr><td>Over 5</td><td>1</td></tr></table> Unit: Rate	Range	Score	0	0	0.01 - 1	0.25	1.01 - 3	0.50	3.01 - 5	0.75	Over 5	1
Range	Score													
0	0													
0.01 - 1	0.25													
1.01 - 3	0.50													
3.01 - 5	0.75													
Over 5	1													
Number of Pedestrian and Bicycle Crashes A crash which involves a pedestrian or a cyclist <i>Source: Signal 4 Analytics (2016-2020)</i>	Method: Three-year data for pedestrian and bicycle crashes were collected and assigned to each corridor within the data model. Logic: Corridors which exhibit a high number of crashes involving a pedestrian or cyclist should be prioritized for improvements which eliminate the safety concerns. <u>Greater the number of pedestrian and bicycle crashes, greater the need, greater the point allocation.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0</td><td>0</td></tr><tr><td>0.01 - 1</td><td>0.50</td></tr><tr><td>1.01 - 3</td><td>0.1</td></tr><tr><td>3.01 - 5</td><td>1.5</td></tr><tr><td>Over 5</td><td>2</td></tr></table> Unit: Number	Range	Score	0	0	0.01 - 1	0.50	1.01 - 3	0.1	3.01 - 5	1.5	Over 5	2
Range	Score													
0	0													
0.01 - 1	0.50													
1.01 - 3	0.1													
3.01 - 5	1.5													
Over 5	2													
Evacuation Route Designation A highway that is a specified route for an emergency evacuation <i>Source: Division of Emergency Management</i>	Method: Corridors which serve as a designated evacuation routes were identified within the data model. Logic: Corridors with evacuation route designations provide critical infrastructure to help prepare for, respond to, and recover from emergencies. Designated evacuation routes will receive point allocation. <u>Corridors designated as an evacuation route will receive point allocation for prioritization.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>No</td><td>0</td></tr><tr><td>Yes</td><td>1</td></tr></table> Unit: N/A	Range	Score	No	0	Yes	1						
Range	Score													
No	0													
Yes	1													

Table B-3 | Reliability & Performance Criteria and Scoring Logic

Indicator	Description	Scoring Thresholds												
Travel Time Reliability (Auto) The consistency or dependability in travel times measured as a ratio of the 80 th percentile travel time to the average travel time. <i>Source: Streetlight</i>	<p>Method: Travel time reliability (TTR) data was obtained from Streetlight for automobiles (non-commercial) and assigned to each corridor within the data model.</p> <p>Logic: To improve travel time reliability on the transportation system, corridors with unreliable travel times should be prioritized for improvement. For example, if the TTR is 1.5 and your work commute takes 30 minutes on average, you would need to plan 45 minutes to ensure an on-time arrival, 80 percent of the time.</p> <p><u>Lesser the reliability, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 – 1.10</td><td>0</td></tr><tr><td>1.11 – 1.25</td><td>0.25</td></tr><tr><td>1.26 – 1.5</td><td>0.50</td></tr><tr><td>1.51 – 1.8</td><td>0.75</td></tr><tr><td>Over 1.8</td><td>1</td></tr></table> <p>Unit: Ratio</p>	Range	Score	0 – 1.10	0	1.11 – 1.25	0.25	1.26 – 1.5	0.50	1.51 – 1.8	0.75	Over 1.8	1
Range	Score													
0 – 1.10	0													
1.11 – 1.25	0.25													
1.26 – 1.5	0.50													
1.51 – 1.8	0.75													
Over 1.8	1													
Travel Time Reliability (Auto) on Constrained Corridors The consistency or dependability in travel times for automobiles on constrained corridors <i>Source: Streetlight</i>	<p>Method: Travel time reliability (TTR) data was obtained from Streetlight for automobiles (non-commercial) and assigned to constrained corridor within the data model.</p> <p>Logic: To improve travel time reliability on the transportation system, corridors with unreliable travel times for autos on constrained corridors should be prioritized for improvement.</p> <p><u>Lesser the reliability on constrained corridor, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 – 1.10</td><td>0</td></tr><tr><td>1.11 – 1.25</td><td>0.25</td></tr><tr><td>1.26 – 1.5</td><td>0.50</td></tr><tr><td>1.51 – 1.8</td><td>0.75</td></tr><tr><td>Over 1.8</td><td>1</td></tr></table> <p>Unit: Ratio</p>	Range	Score	0 – 1.10	0	1.11 – 1.25	0.25	1.26 – 1.5	0.50	1.51 – 1.8	0.75	Over 1.8	1
Range	Score													
0 – 1.10	0													
1.11 – 1.25	0.25													
1.26 – 1.5	0.50													
1.51 – 1.8	0.75													
Over 1.8	1													
Fiber Optics Presence Indication of fiber availability along a corridor <i>Source: ITS Master Plan / Maintaining Agencies</i>	<p>Method: Data provided by the Maintaining Agencies was used to determine the presence of fiber along a corridor.</p> <p>Logic: The presence of fiber allows the opportunity to implement active ITS solutions. For example, traffic signals which are connected via fiber allow operators and/or software to adapt and coordinate signal timings along a corridor.</p> <p><u>No fiber optics, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>Yes</td><td>0</td></tr><tr><td>No</td><td>1</td></tr></table> <p>Unit: N/A</p>	Range	Score	Yes	0	No	1						
Range	Score													
Yes	0													
No	1													
Segment Actively Monitored and Managed Indication if a corridor is actively monitored or managed <i>Source: ITS Master Plan / Maintaining Agencies</i>	<p>Method: Data provided by the Maintaining Agencies was used to determine if the corridor met the characteristics of an actively monitored and managed corridor. These characteristics include those with fiber in place; those with coordinated or interconnected signals; those with CCTVs, Bluetooth devices, DMS, electronic display signs, or MVDS in place; and those that are included within the Integrated Corridor Management (ICM) system being managed by FDOT.</p> <p>Logic: A segment that is actively monitored and managed allows the opportunity for better reliability & performance.</p> <p><u>No active management, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>Yes</td><td>0</td></tr><tr><td>No</td><td>1</td></tr></table> <p>Unit: N/A</p>	Range	Score	Yes	0	No	1						
Range	Score													
Yes	0													
No	1													
Relative Change: Future Congested Speeds Comparison of the 2045 speed to the existing speed <i>Source: CFRPM v7</i>	<p>Method: The 2015 and 2045 travel demand model were evaluated to quantify the change in congested speeds along a corridor.</p> <p>Logic: Corridors which exhibit the greatest decrease in future travel speed should be prioritized for improvement.</p> <p><u>Greater the decrease in speed, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>Over 1</td><td>0</td></tr><tr><td>1.0 – 0.82</td><td>0.25</td></tr><tr><td>0.81 – 0.62</td><td>0.50</td></tr><tr><td>0.61 – 0.30</td><td>0.75</td></tr><tr><td>Less than 0.30</td><td>1</td></tr></table> <p>Unit: Ratio</p>	Range	Score	Over 1	0	1.0 – 0.82	0.25	0.81 – 0.62	0.50	0.61 – 0.30	0.75	Less than 0.30	1
Range	Score													
Over 1	0													
1.0 – 0.82	0.25													
0.81 – 0.62	0.50													
0.61 – 0.30	0.75													
Less than 0.30	1													

Table B-4 | Access & Connectivity Criteria and Scoring Logic

Indicator	Description	Scoring Thresholds												
Transit System Headway The amount of time between transit vehicle arrivals at a stop <i>Source: LYNX</i>	Method: GIS data was used to identify the transit headway along a corridor. An average headway was used when multiple transit lines were present. Logic: Increased transit frequency provides riders with greater flexibility and improves reliability and confidence of using transit as a travel mode. <u>Greater the headway, greater the need, greater the point allocation.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 30</td><td>0</td></tr><tr><td>31 - 45</td><td>0.50</td></tr><tr><td>46 - 60</td><td>0.75</td></tr><tr><td>Over 60</td><td>1</td></tr></table> <i>Unit: Minutes</i>	Range	Score	0 - 30	0	31 - 45	0.50	46 - 60	0.75	Over 60	1		
Range	Score													
0 - 30	0													
31 - 45	0.50													
46 - 60	0.75													
Over 60	1													
Population within ½ mile of Non-Transit Corridor 2045 population totals from CFRPM TAZs in proximity to a corridor without transit <i>Source: CFRPM v7, LYNX</i>	Method: Corridors without a transit stop were evaluated to determine the amount of population within ½ mile. Logic: To improve housing access to high frequency transit, corridors with the largest population and no transit should be prioritized for improvement. <u>Greater the population with no access to transit, greater the need, greater the point allocation.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 – 2,000</td><td>0</td></tr><tr><td>2,001 – 7,000</td><td>0.50</td></tr><tr><td>7,001 – 11,000</td><td>0.75</td></tr><tr><td>Over 11,000</td><td>1</td></tr></table> <i>Unit: Population</i>	Range	Score	0 – 2,000	0	2,001 – 7,000	0.50	7,001 – 11,000	0.75	Over 11,000	1		
Range	Score													
0 – 2,000	0													
2,001 – 7,000	0.50													
7,001 – 11,000	0.75													
Over 11,000	1													
Jobs within ½ mile of Non-Transit Corridor 2045 employment totals within CFRPM TAZs in proximity to a corridor without transit <i>Source: CFRPM v7, LYNX</i>	Method: Corridors without a transit stop were evaluated to determine the amount of employment within ½ mile. Logic: To improve employment access to high frequency transit, corridors with the largest population and no transit should be prioritized for improvement. <u>Greater the jobs with no access to transit, greater the need, greater the point allocation.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 – 3,400</td><td>0</td></tr><tr><td>3,401 - 7,000</td><td>0.50</td></tr><tr><td>7,001 - 11,000</td><td>0.75</td></tr><tr><td>Over 11,000</td><td>1</td></tr></table> <i>Unit: Employees</i>	Range	Score	0 – 3,400	0	3,401 - 7,000	0.50	7,001 - 11,000	0.75	Over 11,000	1		
Range	Score													
0 – 3,400	0													
3,401 - 7,000	0.50													
7,001 - 11,000	0.75													
Over 11,000	1													
Food & Healthcare Locations within ½ mile of Corridor Proximity of land uses which provide food or healthcare opportunities <i>Source: xWave, 4/2022</i>	Method: Proximity data for grocery stores, restaurants, markets, coffee shops, fast food restaurants, gyms, hospitals, pharmacies, and clinics was obtained from xWave. The number of these land uses within ½ mile of the corridor were totaled and scored (max score of 9 based on the 9 land use categories) Logic: To provide access to essential services across all modes of transportation, corridors which are in close proximity to food & healthcare locations should be prioritized for improvement. <u>Greater the food and healthcare locations, greater the need, greater the point allocation.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 2</td><td>0</td></tr><tr><td>3 - 4</td><td>0.25</td></tr><tr><td>5 - 6</td><td>0.50</td></tr><tr><td>7 - 8</td><td>0.75</td></tr><tr><td>9</td><td>1</td></tr></table> <i>Unit: Number</i>	Range	Score	0 - 2	0	3 - 4	0.25	5 - 6	0.50	7 - 8	0.75	9	1
Range	Score													
0 - 2	0													
3 - 4	0.25													
5 - 6	0.50													
7 - 8	0.75													
9	1													

Table B-4 | Access & Connectivity Criteria and Scoring Logic (Continued)

Indicator	Description	Scoring Thresholds										
Cultural & Recreational Locations within ½ mile of Corridor Proximity of land uses which provide cultural & recreational opportunities <i>Source: xWave, 4/2022</i>	Method: Proximity data for theme parks, golf courses, camping sites, libraries, and parks was obtained from xWave. The number of these land uses within ½ mile of the corridor were totaled and scored. Logic: To provide access to essential services across all modes of transportation, corridors which are in close proximity to cultural & recreational locations should be prioritized for improvement. <u>Greater the cultural & recreational locations, greater the need, greater the point allocation.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>1</td><td>0.25</td></tr><tr><td>2</td><td>0.50</td></tr><tr><td>3</td><td>0.75</td></tr><tr><td>4</td><td>1</td></tr></table> <i>Unit: Number</i>	Range	Score	1	0.25	2	0.50	3	0.75	4	1
Range	Score											
1	0.25											
2	0.50											
3	0.75											
4	1											
Sidewalk Critical Needs Critical needs identified based on functional class, sidewalk gaps, and proximity to transit, schools and generators <i>Source: xWave, 4/2022</i>	Method: Corridors where a sidewalk critical need has been identified were scored for improvement. Logic: To improve pedestrian connectivity, corridors with sidewalk critical needs should be prioritized for improvement. <u>Corridors where sidewalk critical needs are identified will receive point allocation for prioritization.</u>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>1-4</td><td>0.5</td></tr><tr><td>5 - 12</td><td>0.75</td></tr><tr><td>Over 12</td><td>1</td></tr></table> <i>Unit: Percent</i>	Range	Score	1-4	0.5	5 - 12	0.75	Over 12	1		
Range	Score											
1-4	0.5											
5 - 12	0.75											
Over 12	1											

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Table B-5 | Health & Environment Criteria and Scoring Logic

Indicator	Description	Scoring Thresholds												
Bicycle Level of Traffic Stress Bicycle user’s level of comfort when using the roadway or bicycle facility <i>Source: xWave, 4/2022</i>	<p>Method: Corridor Bicycle Level Traffic of Stress (LTS) average scores were based on presence and type of bicycle facility, roadway speed, number of lanes, and volume.</p> <p>Logic: To improve bicycle user’s comfort, corridors with higher LTS scores should be prioritized for improvement.</p> <p><u>Greater the LTS, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>Less than 2.75</td><td>0</td></tr><tr><td>2.76 - 3</td><td>0.50</td></tr><tr><td>3.1 - 3.5</td><td>0.75</td></tr><tr><td>Over 3.5</td><td>1</td></tr></table> <p>Unit: Score</p>	Range	Score	Less than 2.75	0	2.76 - 3	0.50	3.1 - 3.5	0.75	Over 3.5	1		
Range	Score													
Less than 2.75	0													
2.76 - 3	0.50													
3.1 - 3.5	0.75													
Over 3.5	1													
Residential Density within ¼ Mile of Multimodal Facility 2045 residential dwelling unit totals from CFRPM TAZs in proximity to a corridor without multimodal facilities <i>Source: CFRPM v7, LYNX</i>	<p>Method: Corridors were evaluated to determine the amount of residential density (single family and multifamily dwelling units) within ¼ mile. The corridors were then compared to the availability of alternative modes of travel (transit, sidewalk, bike lane). If a corridor has less than 1,200 population, it will not be scored.</p> <p>Logic: To reduce delay and increase affordability for transportation and housing choices, corridors with the highest residential density should have access to a full range of travel modes.</p> <p><u>Greater the residential density with a lack of multimodal options, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>Greater than 1,200</td><td></td></tr><tr><td>3 modes</td><td>0</td></tr><tr><td>2 modes</td><td>0.5</td></tr><tr><td>1 mode</td><td>0.75</td></tr><tr><td>0 modes</td><td>1</td></tr></table> <p>Unit: Population</p>	Range	Score	Greater than 1,200		3 modes	0	2 modes	0.5	1 mode	0.75	0 modes	1
Range	Score													
Greater than 1,200														
3 modes	0													
2 modes	0.5													
1 mode	0.75													
0 modes	1													
Non-Residential Intensity within ¼ Mile of Multimodal Facility 2045 Non-Residential totals within CFRPM TAZs in proximity to a corridor without multimodal facilities <i>Source: CFRPM v7, LYNX</i>	<p>Method: Corridors were evaluated to determine the amount of non-residential intensity (Employees for Commercial, Industrial, and Service) within ¼ mile. The corridors were then compared to the availability of alternative modes of travel (transit, sidewalk, bike lane). If a corridor has less than 1,400 employment, it will not be scored.</p> <p>Logic: To reduce delay and increase affordability for transportation and housing choices, corridors with the highest non-residential intensity should have access to a full range of travel modes.</p> <p><u>Greater the non-residential intensity with a lack of multimodal options, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>Greater than 1,400</td><td></td></tr><tr><td>3 modes</td><td>0</td></tr><tr><td>2 modes</td><td>0.5</td></tr><tr><td>1 mode</td><td>0.75</td></tr><tr><td>0 modes</td><td>1</td></tr></table> <p>Unit: Employment</p>	Range	Score	Greater than 1,400		3 modes	0	2 modes	0.5	1 mode	0.75	0 modes	1
Range	Score													
Greater than 1,400														
3 modes	0													
2 modes	0.5													
1 mode	0.75													
0 modes	1													
Public Health Indicator Rates Risk score for chronic disease risk factors associated with physical inactivity along a corridor <i>Source: 5-year American Community Survey Data</i>	<p>Method: Quantify rate of population with health indicators associated with physical inactivity (Asthma, Obesity, Diabetes) then compare to the availability of sidewalks and bike facilities</p> <p>Logic: To reduce the health impacts associated with physical inactivity, corridors that serve areas with a higher risk for the associated chronic diseases should be prioritized.</p> <p><u>Greater the health risks, greater the need for active transportation facilities, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 0.4</td><td>0</td></tr><tr><td>0.41 - 0.65</td><td>0.50</td></tr><tr><td>0.66 - 0.83</td><td>0.75</td></tr><tr><td>Over 0.83</td><td>1</td></tr></table> <p>Unit: Score</p>	Range	Score	0 - 0.4	0	0.41 - 0.65	0.50	0.66 - 0.83	0.75	Over 0.83	1		
Range	Score													
0 - 0.4	0													
0.41 - 0.65	0.50													
0.66 - 0.83	0.75													
Over 0.83	1													

Table B-5 | Health & Environment Criteria and Scoring Logic (Continued)

Indicator	Description	Scoring Thresholds												
<p>Environmental Justice (EJ) Populations</p> <p>Percentage of seven traditionally underserved communities (low income, minority, aging population, people with disabilities, zero-car households, limited English proficiency persons, female head of household with child), measured at the census tract level.</p> <p><i>Source: 5-year American Community Survey Data</i></p>	<p>Method: A GIS assessment was conducted to determine the corresponding EJ score for the area adjacent to the corridor. The EJ score represents the number of underserved communities which exceed the regional average within a particular census block.</p> <p>Logic: To ensure that transportation decisions do not cause disproportionately high and adverse effects on low-income and minority populations, corridors with higher EJ population will be prioritized for improvements.</p> <p><u>Greater the EJ population, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>1</td><td>0.25</td></tr><tr><td>2 - 3</td><td>0.50</td></tr><tr><td>4</td><td>0.75</td></tr><tr><td>Over 4</td><td>1</td></tr></table> <p>Unit: Score</p>	Range	Score	1	0.25	2 - 3	0.50	4	0.75	Over 4	1		
Range	Score													
1	0.25													
2 - 3	0.50													
4	0.75													
Over 4	1													
<p>Relative Change: Vehicle Miles Traveled (VMT)</p> <p>Comparison of a corridor's 2045 VMT to the existing VMT</p> <p><i>Source: CFRPM v7</i></p>	<p>Method: The 2015 and 2045 travel demand model were evaluated to quantify the change in VMT along a corridor.</p> <p>Logic: Increased VMT results in increased greenhouse gas emissions, therefore corridors which exhibit the greatest increase in future VMT should be prioritized for improvements to other modes of travel that provide increased occupancy (transit) or active transportation (bike/pedestrian facilities).</p> <p><u>Greater the VMT increase, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 1.10</td><td>0</td></tr><tr><td>1.11 - 1.3</td><td>0.25</td></tr><tr><td>1.31 - 1.6</td><td>0.50</td></tr><tr><td>1.61 - 2.5</td><td>0.75</td></tr><tr><td>Over 2.5</td><td>1</td></tr></table> <p>Unit: Ratio</p>	Range	Score	0 - 1.10	0	1.11 - 1.3	0.25	1.31 - 1.6	0.50	1.61 - 2.5	0.75	Over 2.5	1
Range	Score													
0 - 1.10	0													
1.11 - 1.3	0.25													
1.31 - 1.6	0.50													
1.61 - 2.5	0.75													
Over 2.5	1													

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Table B-6 | Investment & Economy Criteria and Scoring Logic

Indicator	Description	Scoring Thresholds												
<p>Percentage of Commercial Vehicles</p> <p>The number of heavy vehicles compared to the total traffic along a corridor</p> <p><i>Source: Streetlight</i></p>	<p>Method: The truck volume was divided by the total volume to derive the percentage of commercial vehicles on each corridor.</p> <p>Logic: To promote transportation projects that expand and enhance economic prosperity, corridors which serve higher percentages of commercial vehicles should be prioritized for improvement.</p> <p><u>Greater the truck percentage, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 10</td><td>0</td></tr><tr><td>11 - 15</td><td>0.50</td></tr><tr><td>16 - 20</td><td>0.75</td></tr><tr><td>Over 20</td><td>1</td></tr></table> <p>Unit: Percent</p>	Range	Score	0 - 10	0	11 - 15	0.50	16 - 20	0.75	Over 20	1		
Range	Score													
0 - 10	0													
11 - 15	0.50													
16 - 20	0.75													
Over 20	1													
<p>Statewide Truck Bottlenecks</p> <p>Corridors ranked as Top 10 and Top 100 Statewide bottlenecks</p> <p><i>Source: Truck Bottlenecks NPMRDS</i></p>	<p>Method: Top 10 and Top 100 truck bottlenecks within the MetroPlan Orlando region were reviewed and coded in the data model.</p> <p>Logic: To promote transportation projects that expand and enhance economic prosperity, corridors which have been identified as bottlenecks for commercial vehicles should be prioritized for improvement. Reduced congestion on these corridors will provide for efficient movement of goods and services throughout the region.</p> <p><u>Greater the rank of truck bottleneck, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>Top 100</td><td>0.75</td></tr><tr><td>Top 10</td><td>1</td></tr></table> <p>Unit: Rank</p>	Range	Score	Top 100	0.75	Top 10	1						
Range	Score													
Top 100	0.75													
Top 10	1													
<p>Freight Intensive Land Use within 1-mile of Corridor</p> <p>2045 industrial employment totals within CFRPM TAZs in proximity to a corridor</p> <p><i>Source: CFRPM v7</i></p>	<p>Method: Corridors were evaluated to determine the amount of freight intensive land use (Industrial employment) within 1 mile</p> <p>Logic: To promote transportation projects that expand and enhance economic prosperity, corridors which serve as the last mile connection for freight should be prioritized for improvement.</p> <p><u>Greater the freight intensive land use, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 50</td><td>0</td></tr><tr><td>51 - 100</td><td>0.50</td></tr><tr><td>101 - 200</td><td>0.75</td></tr><tr><td>Over 200</td><td>1</td></tr></table> <p>Unit: Employees</p>	Range	Score	0 - 50	0	51 - 100	0.50	101 - 200	0.75	Over 200	1		
Range	Score													
0 - 50	0													
51 - 100	0.50													
101 - 200	0.75													
Over 200	1													
<p>Relative Change: Vehicle Hours Traveled (VHT)</p> <p>Comparison of a corridor's 2045 VHT to the existing VHT</p> <p><i>Source: CFRPM v7</i></p>	<p>Method: The 2015 and 2045 travel demand model were evaluated to quantify the change in VHT along a corridor.</p> <p>Logic: Corridors which exhibit the greatest increase in future VHT should be prioritized for improvements. For example, if a corridor is projected to have a 3.0 ratio of VHT increase, the existing time spent traversing the corridor will be three times higher in the future</p> <p><u>Greater the VHT increase, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 1.10</td><td>0</td></tr><tr><td>1.11 - 1.4</td><td>0.25</td></tr><tr><td>1.4 - 1.75</td><td>0.50</td></tr><tr><td>1.76 - 2.8</td><td>.75</td></tr><tr><td>Over 2.8</td><td>1</td></tr></table> <p>Unit: Ratio</p>	Range	Score	0 - 1.10	0	1.11 - 1.4	0.25	1.4 - 1.75	0.50	1.76 - 2.8	.75	Over 2.8	1
Range	Score													
0 - 1.10	0													
1.11 - 1.4	0.25													
1.4 - 1.75	0.50													
1.76 - 2.8	.75													
Over 2.8	1													

Table B-6 | Investment & Economy Criteria and Scoring Logic (Continued)

Indicator	Description	Scoring Thresholds												
<p>Cost Burdened Households within ¼ mile of Corridor</p> <p>The percentage of families which pay more than 30 percent of their income for housing.</p> <p><i>Source: 5-year American Community Survey Data</i></p>	<p>Method: Corridors were evaluated to determine the percentage of cost burdened households within ¼ mile of the corridor.</p> <p>Logic: To ensure that transportation decisions do not cause disproportionately high and adverse effects on cost burdened households, corridors with higher percentages will be prioritized for improvements.</p> <p><u>Greater the cost burdened households, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>10 - 22</td><td>0.25</td></tr><tr><td>23 - 27</td><td>0.5</td></tr><tr><td>28 - 32</td><td>0.75</td></tr><tr><td>Over 32</td><td>1</td></tr></table> <p>Unit: Percentage</p>	Range	Score	10 - 22	0.25	23 - 27	0.5	28 - 32	0.75	Over 32	1		
Range	Score													
10 - 22	0.25													
23 - 27	0.5													
28 - 32	0.75													
Over 32	1													
<p>Percentage of Visitor Traffic</p> <p>The percentage of visitor traffic to total traffic along a corridor</p> <p><i>Source: FDOT Central Florida Visitor Study – 2018</i></p>	<p>Method: The percentage of visitor traffic was assigned to each corridor within the data model.</p> <p>Logic: To improve the transportation experience for visitors and supportive-industry worker, corridors which exhibit a high percentage of visitor traffic should be prioritized.</p> <p><u>Greater the percent of visitor traffic, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 10</td><td>0</td></tr><tr><td>11 - 25</td><td>0.25</td></tr><tr><td>26 - 40</td><td>0.5</td></tr><tr><td>41 - 60</td><td>0.75</td></tr><tr><td>Over 60</td><td>1</td></tr></table> <p>Unit: Percentage</p>	Range	Score	0 - 10	0	11 - 25	0.25	26 - 40	0.5	41 - 60	0.75	Over 60	1
Range	Score													
0 - 10	0													
11 - 25	0.25													
26 - 40	0.5													
41 - 60	0.75													
Over 60	1													
<p>Cost of Congestion</p> <p>Comparison of a corridor’s cost of congestion between the 2045 cost and existing cost.</p> <p><i>Source: CFRPM v7, U.S. Census Data</i></p>	<p>Method: The cost of congestion uses average delay along a corridor and multiplies by the estimated hourly income per county (average household income / average household occupancy / 2080 hours per year).</p> <p>Logic: To reduce per capita delay for residents, visitors, and businesses, corridors with the highest cost per congestion should be prioritized for improvement. For example, if a 30 minute work commute takes you one hour, the additional 30 minutes spent in congestion was measured as a cost.</p> <p><u>Greater the cost of congestion, greater the need, greater the point allocation.</u></p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 3</td><td>0</td></tr><tr><td>4 - 5</td><td>0.5</td></tr><tr><td>6 - 14</td><td>0.75</td></tr><tr><td>Over 14</td><td>1</td></tr></table> <p>Unit: Ratio</p>	Range	Score	0 - 3	0	4 - 5	0.5	6 - 14	0.75	Over 14	1		
Range	Score													
0 - 3	0													
4 - 5	0.5													
6 - 14	0.75													
Over 14	1													

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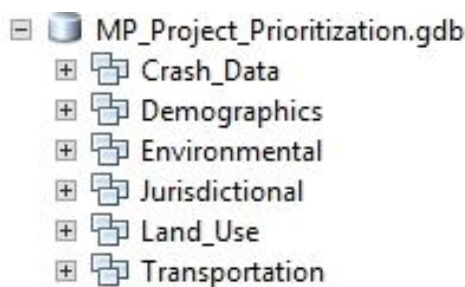
Data Model Development

The development of the automated GIS data model included combining multiple data sources and information into a singular base segmented roadway file that included the roads in the MetroPlan Orlando area.

Prioritization Database and Roadway Network Development

Prior to building the actual prioritization model, MetroPlan Orlando and HDR conducted a coordination meeting and reviewed assumptions, methodology and data sources; and to discuss availability and quality of the numerous input datasets from various sources including FDOT's statewide Roadway Characteristics Inventory (RCI), U.S. Census American Community Survey (ACS), FDOT's regional travel demand model (CFRPM), Signal Four Crash Database, regional/local land use data, LYNX transit routes/stops, and regional activity centers. The datasets then were compiled in a centralized file geodatabase (fGDB) and then processed as required for prioritization, as shown Figure B-1. A full list of data sources and model criteria is broken down in prior sections.

Figure B-1 | Prioritization File Geodatabase



A complete master roadway network forms the basis for developing a comprehensive regional prioritization. For this purpose, the existing MetroPlan Orlando base roadway network and segmentation was reviewed and updated to reflect both correct network geometry and attribute information. Updates included:

- Splitting segments at (major) intersections to create logical/coherent network
- Standardizing roadway names (spelling, abbreviations, leading with state road number followed by local name where applicable)
- Adding from/to descriptions for each segment
- Creating unique 5-digit roadway segment ID (starting with 1 for Seminole, 2 for Orange, 3 for Osceola)
- Adding database field to capture potential for future segment splits

For example, previously “Colonial Drive” appeared in many iterations in the database (e.g. “W Colonial Drive – SR50”, “SR 50 E Colonial Drive”, etc.). For consistency, the naming was standardized to “SR 50 / Colonial Dr” throughout the entire database. **Figure B-2** shows an extract of the updated and standardized roadway database schema.

Figure B-2 | Base Network Database Schema

Roadway_Network_MP_All									
Segment ID	Segment ID Split	Length (Mi)	Road Name	From Road	To Road	Road Status	Access Type	State Road	County
10001	<Null>	0.542	US 17/92	Seminole Blvd	Seminole/Volusia CL	Existing Road	Full Access	Yes	Seminole
10002	<Null>	0.896	I-4	Orange Blvd	Seminole/Volusia CL	Existing Road	Limited Access	Yes	Seminole
10003	<Null>	0.314	US 17/92 / Monroe Rd	Orange Blvd	Seminole Blvd	Existing Road	Full Access	Yes	Seminole
10004	<Null>	2.58	Seminole Blvd	Mangoustine Ave	US 17/92 / Monroe Rd	Existing Road	Full Access	No	Seminole
10005	<Null>	1.05	Orange Blvd	Oregon St	US 17/92 / Monroe Rd	Existing Road	Full Access	No	Seminole
10006	<Null>	2.999	I-4	SR 46	Orange Blvd	Existing Road	Limited Access	Yes	Seminole
10007	<Null>	1.152	US 17/92 / Monroe Rd	SR 46	Orange Blvd	Existing Road	Full Access	Yes	Seminole

Two (2) of the major inputs into the prioritization process, the xWave database and the latest Central Florida Regional Planning Model (CFRPM) model network, had to undergo a comprehensive network conflation. Network conflation is the process of merging transportation data associated with two or more linear networks of different geometry/segmentation with the intent of exchanging roadway segment characteristics between networks.

The process of conflation allowed these various data sources to be combined through spatial analytics. In some cases, the roadway segments were provided a buffer area in which select data was collected, such as the percent of population within ½ mile of the corridor; or in other cases used to identify which roadway segments have been identified as evacuation routes. For example, the xWave network segmentation is much more fine-grained than the segmentation of the MetroPlan Orlando base roadway network. In order to summarize xWave network characteristics at the base network segmentation level, each xWave segment was assigned the corresponding MetroPlan Orlando base network segment ID via a coding process. The same conflation concept was applied to both the base (2015) and future (2045) CFRPM model networks. Figure B-3 shows an extract of the CFRPM network database with the MetroPlan Orlando base network segment ID added during conflation.

Figure B-3 | CFRPM Network Database Following Network Conflation

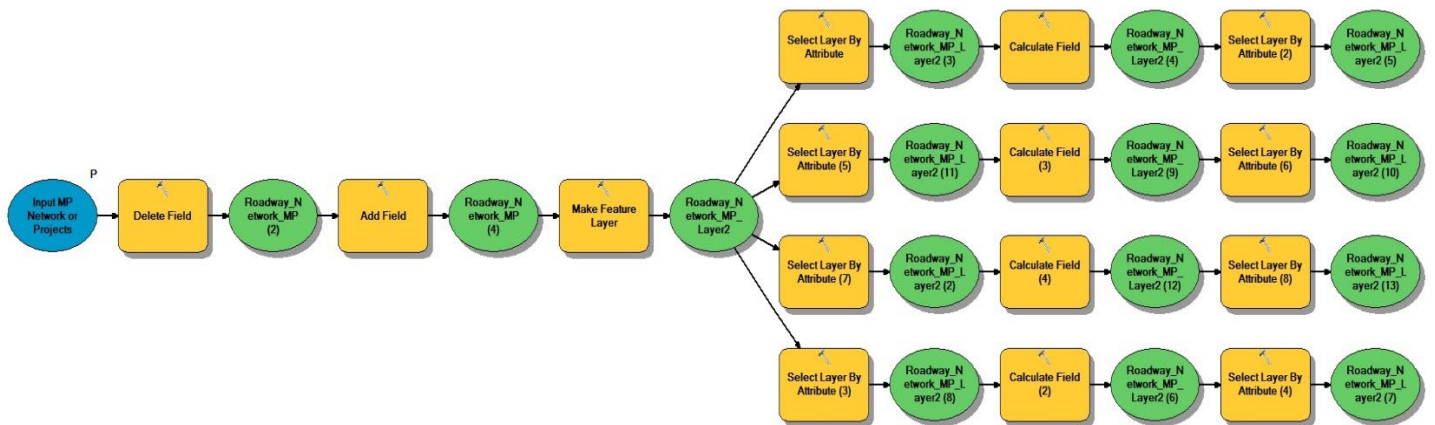
A45_A	A45_B	A45_ROAD_NAME	A45_TWOWAY	A45_DIR	A45_NUM_LANES	A45_POST_SPEED	A45_UA_TYPE	A45_UA_NAME	A45_FUNCCLASS	MP_SEG_ID
70411	70062	Osceola Pkwy	2: Two-Way Link	EB: Eastbound	2	55	1: Urban	7: Kissimmee	14: Urban - Principal Arterial	30049
64300	61951	Schofield Rd	2: Two-Way Link	EB: Eastbound	1	40	1: Urban	13: Orlando	19: Urban - Local	<Null>
61951	61183	Schofield Rd	2: Two-Way Link	EB: Eastbound	1	40	1: Urban	13: Orlando	19: Urban - Local	<Null>
61657	60951	Schofield Rd	2: Two-Way Link	EB: Eastbound	1	40	1: Urban	13: Orlando	19: Urban - Local	<Null>
61183	61657	Schofield Rd	2: Two-Way Link	EB: Eastbound	1	40	1: Urban	13: Orlando	19: Urban - Local	<Null>
90139	90148	SR 436	2: Two-Way Link	EB: Eastbound	3	40	1: Urban	13: Orlando	14: Urban - Principal Arterial	10310
70143	74538	Osceola Pkwy	2: Two-Way Link	EB: Eastbound	2	55	1: Urban	7: Kissimmee	14: Urban - Principal Arterial	30035
74538	70083	Osceola Pkwy	2: Two-Way Link	EB: Eastbound	2	55	1: Urban	7: Kissimmee	14: Urban - Principal Arterial	30035
61119	64355	Laurel Valley Dr	2: Two-Way Link	EB: Eastbound	1	35	1: Urban	13: Orlando	19: Urban - Local	21210
64355	61195	Laurel Valley Dr	2: Two-Way Link	EB: Eastbound	1	35	1: Urban	13: Orlando	19: Urban - Local	21210
61888	64042	Buena Vista Dr	2: Two-Way Link	EB: Eastbound	3	50	1: Urban	13: Orlando	17: Urban - Major Collector	21505

Other datasets such as RCI and ACS layers were clipped to the MetroPlan Orlando study area in order provide full coverage of the three-county area. After completing the conflation of the various data sets, GIS models were used to deliver automated and adjustable scoring mechanisms which could be changed by users to place additional emphasis on select characteristics. These GIS models programmatically evaluate each performance measure and deliver a score and value which corresponds to occurrence of the measure in relation to other roadway segments and the emphasis that performance measure has been given.

Building the Prioritization Model

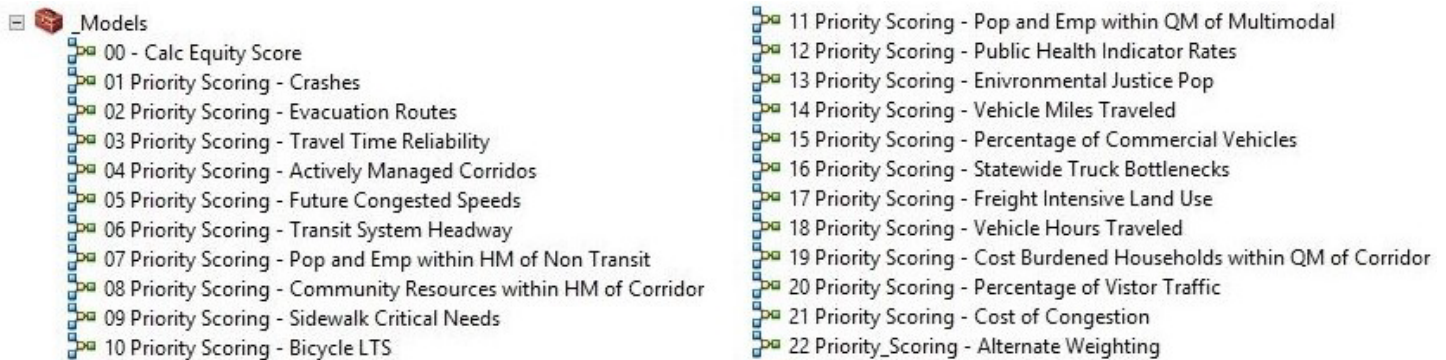
The data-driven project evaluation and scoring was conducted utilizing *ModelBuilder* tools within the Esri ArcGIS Desktop environment. *ModelBuilder* is a visual programming language for building geoprocessing workflows. Geoprocessing models automate and document spatial analysis and data management processes. A model is represented as a diagram that chains together sequences of processes and geoprocessing tools, using the output of one process as the input to another process. An example of this script flow is shown in Figure B-4.

Figure B-4 | ModelBuilder Script Example



A series of models was developed to compute values and scores for the various performance indicators such as environmental justice regions identifying areas of underserved populations, demand scores for actively managed corridors, freight intensive areas, transit system headways, conducting crash data analysis, identifying sidewalk critical needs, and assigning aggregate scores to each base roadway network segment. The model scripts are stored inside a toolbox with the fGDB containing the base roadway network along with all the other input datasets (see Figure B-5).

Figure B-5 | Prioritization Model Script Toolbox



For each performance indicator, a model computes the respective value of each roadway segment and then computes the indicator score ranging from 0 to 1 depending on the thresholds outlined in Tables B-3 through B-7. Both the indicator value and score are appended to the roadway segment attribute table and feed into the aggregate scores for each goal area which are then used to compute the overall comprehensive score (see Figure B-6 for extract of roadway segment attribute table).

Figure B-6 | Base Roadway Network Database with Added Prioritization Results

Roadway_Network_MP_Priority										
Segment ID	Seg. Length (Mi)	Road Name	From Road	To Road	TTR	Constraint Corridor	Total Crashes	Total Crash Rate	Score Total Crashes	
10001	0.541794	US 17/92	Seminole Blvd	Seminole/Volusia CL	1.29	Yes	128	3.922828	0.5	
10002	0.896331	I-4	Orange Blvd	Seminole/Volusia CL	1.199	No	88	0.39556	0	
10003	0.313658	US 17/92 / Monroe Rd	Orange Blvd	Seminole Blvd	2.182	Yes	79	18.401232	1	
10004	2.579966	Seminole Blvd	Mangoustine Ave	US 17/92 / Monroe Rd	1.29	No	123	1.789268	0	
10005	1.050456	Orange Blvd	Oregon St	US 17/92 / Monroe Rd	2.331	Yes	35	3.04282	0.5	
10006	2.998545	I-4	SR 46	Orange Blvd	1.199	No	403	0.541493	0	
10007	1.152359	US 17/92 / Monroe Rd	SR 46	Orange Blvd	2.182	Yes	184	10.415688	1	
10008	1.205946	Oregon St	SR 46	Orange Blvd	4.059	Yes	42	2.544469	0.5	
10009	2.09981	Orange Blvd	SR 46	Oregon St	2.331	Yes	56	2.435532	0.5	
10010	0.574873	Seminole Blvd	Mangoustine Ave	French Ave	0	No	25	1.632122	0	
10011	0.312611	Mangoustine Ave	SR 46	Seminole Blvd	0	No	17	3.973023	0.5	
10012	0.281617	French Ave	SR 46	Seminole Blvd	1.15	Yes	61	8.538722	1	

Executing and Updating the Prioritization Model

In order to conduct the prioritization, the model scripts need to be executed in sequence starting with Model 01. By default, each model points to the MetroPlan Orlando base roadway network (Roadway_Network_MP_Final) to serve as the input. This can be changed as needed by pointing to an updated version of the network or a subset of it that could represent a set of projects. Note: For the models to properly execute, the input network or project segment data needs to have the same database schema (i.e. attribute table fields) as the base roadway network. Each model generates values and scores for a specific performance indicator at a roadway/project segment which are being derived from indicator-specific input data. For example, model '01 Priority Scoring – Crashes' computes values and scores for the three crash rate indicators under the safety & security goal area and utilizes the 5-year crash data from Signal Four which is contained in the GDB as 'Crashes_All_2017_21_MP'. If this data were to be changed or updated, the model would need to be adjusted accordingly by pointing to new crash data layer. The same concept applies to the other models.

Once all models have been executed, the prioritization is complete and values and scores for all performance indicators are created. The results are written in a tabular summary table (MP_Network_Prioritization.xls) listing values and scores for all performance indicators as well as aggregate scores by goal area along with the total composite score.

Prioritization Results

The results of the prioritization process are summarized in a geo-database containing all roadway segments with descriptions and prioritization scores/results by goal area. The results are visualized in an interactive map depicting segment scores by goal area as well as the composite score. More details on the prioritization process and results are provided in the [Moving Forward](#) section of the interactive Tracking the Trends publication.

Segment-level information and attributes can also be accessed using MetroPlan Orlando's Online Data Viewer: <https://metroplanorlando.org/maps-tools/dataviewer> (see "Network Evaluation" tab).

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TAB 4





metroplan orlando

A REGIONAL TRANSPORTATION PARTNERSHIP

July 27, 2022

To: Commissioner Mayra Uribe, Board Chair
MetroPlan Orlando Board Members

From: Gary Huttman, Executive Director

Subject: Executive Director's Report

- I participated in several U.S DOT listening sessions on the Bipartisan Infrastructure Law
- I attend the Brightline Phase III Tampa Extension calls as available to do so
- I met with Emily Hanna on July 5 to discuss her budget and proposed scopes of work for the funding partners
- I participated in the AMPO Joint Policy/Technical Committee Meeting on May 16
- participated In the monthly MPO Director's call with FDOT on July 21
- I attended the Truck Parking Public Meeting in Seminole County on May 19
- I attended the CAC meeting on June 22
- I attended the TSMO meeting on June 24
- I attended the TAC meeting on June 24
- I met with the FDOT District Secretary on June 30 to discuss BTU Amendments and agency schedules as they relate to the MPO Planning Process
- I attended the Sunshine Corridor Policy Working Group on June 30
- I attended the Sunshine Corridor Technical Working Group on July 1
- I met with Commissioner Cordero for our MetroPlan agenda review on July 11.
- I met with the Orlando Economic Partnership's Federal Lobbyist Team on July 18 to discuss opportunities for Central Florida in the IIJA.
- I met with MetroPlan Board Chair Commissioner Uribe for our MetroPlan agenda review on July 20
- I attended the MAC meeting on July 7
- I met with Commissioner Dallari for our MetroPlan agenda review on July 21
- I met with Commissioner Grieb for our MetroPlan agenda review on July 21
- I attended the OEAP Open House on July 21
- I met with Board Member Tom Green for our MetroPlan agenda review on July 22
- I met with Mayor Demings for our MetroPlan agenda review on July 22

FDOT

- I continue regular monthly meetings with FDOT leadership team

Staff Recognitions

MetroPlan Orlando's Health Strategic Plan presented at the meeting of the Environmental Design Research Association last month in Greenville, SC. Sarah Larsen of our staff managed that work. This is a great example of the national exposure our work is getting and in an area that is a non-traditional product for MPOs.

That same work was submitted and will be presented at the APA Florida meeting later this year.

Congratulations to Sarah on her work and the positive attention it is receiving.

Taylor Laurent, who is our new Manager of Transportation Planning, will be presenting ***Big Data for Complete Streets Planning*** at the AMPO National Conference later this year. This will be a joint presentation with the Regional Planning Council (MORPC) from Columbus Ohio and with a Vendor of ours, StreetLight Analytics. Taylor's portion of the presentation will focus on our innovative approaches to complete streets planning and enhancing bicycle/pedestrian safety through policy, planning/engineering, and education.

Eric Hill will participate in a panel discussion at the AMPO National Conference discussing MetroPlan Orlando's Connected and Autonomous Vehicle Readiness Study. Cynthia Lambert was also invited to the AMPO National Conference to discuss MetroPlan Orlando's Digital Platform to Collect Public Feedback.

Congratulations to all three staff members for the recognition of their work. We can all be very proud of the accomplishment and the national recognition.

OIA South Terminal

- MetroPlan staff worked with the GOAA Team to arrange a second tour of the new South Terminal. That event is scheduled for August 4.

Central Florida MPO Alliance & the SunCoast Transportation Planning Alliance (TPA)

- Annual joint meeting of the organizations was June 10 in Haines City.

National Association of Regional Councils

- The NARC Annual meeting was held in Columbus Ohio June 12-15. I serve on the Executive Director's Council, one of two individuals representing the southeastern U.S.
- Commissioner Constantine, who serves on the Board of Directors and chairs the Environmental Committee also attended the Annual meeting.

Floridians for Better Transportation

- I attended the FBT summer camp from July 6-8 in Boca Raton.



Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

Orange, Seminole and Osceola Counties Project Status Update as of May 31, 2022

The following is a brief status update on major FDOT road construction projects in Orange, Seminole and Osceola counties as of the May cutoff. The next cutoff date is June 30, 2022. 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.

ORANGE COUNTY

Upcoming Projects:

442880-1 S.R. 500 / U.S. 441 S.R. 500 / U.S. 441 from S.R. 429 Connector to Jones Ave. Resurfacing

- Contract: E58A2
- Contractor: Hubbard Construction Co.
- Project Cost: \$5.8 million
- Project Start: May 2022
- Estimated Completion: Early 2023
- The Contractor has started clearing and grubbing

442905-1 U.S. 441 from C.R. 437A / Central Ave. to Bradshaw Rd. Resurfacing

- Contract: E58A4
- Contractor: Hubbard Construction Co.
- Project Cost: \$3 million
- Project Start: April 2022
- Estimated Completion: Late Fall 2022
- The Contractor has begun erosion control

Current Projects:

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

- Contract E5Z93
- Project Start: March 2021
- Estimated Completion: Summer 2022
- Contractor is performing concrete work throughout the project. Crews are also working on drainage, conduit tie-ins and pedestrian poles. In addition, paving is scheduled to start on the project

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www.fdot.gov

439880-7 Orange County Pedestrian Lighting Bundle G

- Contract T5638
- Project Start: January 2021
- Estimated Completion: Summer 2022
- Contractor is making intersection roadway lighting improvements on S.R. 426

441144-1 & 435733-1 S.R. 527 (Orange Avenue) Resurfacing from S.R. 482 (Sand Lake Road) to Mandalay Road

- Contract T5717
- Project Start: August 2021
- Estimated Completion: Summer 2022
- The contractor is realigning crosswalks to comply with Americans with Disabilities Act (ADA) requirements, improving drainage and pedestrian signals, installing signs and pavement markings, and resurfacing existing roadway to accommodate buffered bike lanes

437634-1 S.R. 551 (Goldenrod Road) from S.R. 408 to S.R. 50

- Contract T5718
- Contractor: Southland Construction, Inc.
- Project Cost: \$11.25 million
- Project Start: August 2021
- Estimated Completion: Summer 2023
- The Contractor is installing storm structures and pipes, clearing and grubbing, installing underdrain cleanouts, and utility construction

SEMINOLE COUNTY**Current Projects:****415030-6 Oviedo Ultimate S.R. 426 / C.R. 419 from Pine Avenue to Avenue B**

- Contract: T5736
- Contractor: Masci Construction
- Project Cost: \$18.2 million
- Project Start: January 2022
- Estimated Completion: Summer 2024
- The Contractor is performing drainage installation, clearing, pond grading, and embankment work

441019-1 S.R. 419 from U.S. 17-92 to S.R. 434

- Contract: T5720
- Contractor: Southland Construction, Inc
- Project Cost: \$4.5 million
- Project Start: November 2021
- Estimated Completion: Late Spring 2022
- The Contractor is performing milling, resurfacing, paving, striping, marking, form, and pouring ditch pavement. The contractor is also working on grade, form, F-Curb and Gutters, and ADA detectable warning mats

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

- Contract: T5686
- Contractor: Masci Construction
- Project Cost: \$10.4 Million
- Project Start: March 2021
- Estimated Completion: Summer 2022
- The Contractor is working on sod placement, median widening, drainage, signalization, pond grading, and water-main / force-main

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

- Contract: T5680
- Contractor: Masci Construction
- Project Cost: \$5 Million
- Project Start: May 2020
- Estimated Completion: Summer 2022
- The paving crew will begin installing structural asphalt at Ronald Reagan Blvd. and Maitland Ave. The Contractor will install loops at intersections Rt. Roadway and Maitland Ave. No milling is to occur on this side of the intersection

Completed Projects:

441211-1 Countywide ATMS-DMS Phase 1 Seminole County

- Contract: E5Z94
- Project Start: May 2019
- Completion: May 2022

OSCEOLA COUNTY

Current Projects:

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: Summer 2022
- Contractor is sodding ditches, installing sidewalk, and mounting light poles and bases. Crews are also paving and working on the sound wall and driveway turnouts, install signs, add lanes, traffic signals, drainage improvements, install signs and pavement markings, and resurface existing roadway

423446-9 SunRail Vehicle Storage and Light Maintenance Facility (VSLMF) Noise Wall

- Contract E59A0
- Project Start: September 2021
 - Estimated Completion: Fall 2022

- Contractor is building a noise wall at the Vehicle Storage and Light Maintenance Facility (VSLMF) for the Central Florida Rail Corridor (CFRC) near Kissimmee, Florida along the Old Tampa Highway

437451-1 S.R. 530/U.S. 192 (West Vine Street) from east of Shingle Creek Regional Park to east of Hoagland Boulevard

- Contract T5716
- Project Start: October 2021
- Estimated Completion: Summer 2022
- Contractor is widening a new left turn lane and installing traffic signals. Crews are also making lighting upgrades

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
- Project Start: July 2021
- Project was completed on May 26, 2022

443958-1 & 444329-1 S.R. 400 (I-4) from Polk County line to west of S.R. 417

- Contract T5728
- Project Start: November 2021
- Estimated Completion: Summer 2023
- Contractor is milling and resurfacing, creating base work, shoulder treatment, drainage improvements, shoulder gutter, lighting, overhead sign structures, guardrail, bridge culvert widening, bridge rail retrofit, pavement removal, and signing and pavement marking

444187-1 S.R. 400 (I-4) at C.R. 532 (Champions Gate Boulevard) DDI from Goodman Road to Kemp Road

- Contract T5715
- Project Start: July 2021
- Estimated Completion: Fall 2022
- Contractor is converting the existing diamond interchange to a diverging diamond interchange (DDI). This includes adding curb and gutter sections; and modifying stormwater ponds for the proposed roadway improvements

447139-1 Pile Jackets, Joint Replacement Bridge Nos 920151 (SB) & 920152 (NB) Carrying S.R. 600 (U.S. 17/92) over Shingle Creek

- Contract E57A6
- Project Start: March 2022
- Estimated Completion: Summer 2022
- Contractor is rehabilitating and repairing the piles and joints on the southbound and northbound bridges that cross Shingle Creek.



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SECRETARY

Orange, Osceola, and Seminole Counties Project Status Update as of June 30, 2022

The following is a brief status update on major FDOT road construction projects in Orange and Osceola counties as of the June cutoff. The next cutoff date is July 29, 2022. 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.

ORANGE COUNTY

Upcoming Projects:

447395-1 S.R. 500 (Orange Blossom Trail) Milling & Resurfacing from Holden Avenue to 34th Street

- Contract E52B4
- Project Start: July 2022
- Estimated Completion: Summer 2023
- Contractor is performing milling and resurfacing, curb reconstruction, sidewalk reconstruction, raised mid-block crosswalk construction, pedestrian refuge construction, curb return reconstruction, in-road lighting, pedestrian hybrid beacons, signalization, signing, striping, and lighting.

442905-1 U.S. 441 from C.R. 437A / Central Avenue to Bradshaw Road Resurfacing

- Contract: E58A4
- Contractor: Hubbard Construction Co.
- Project Cost: \$3 million
- Project Start: Summer 2022
- Estimated Completion: Late 2023
- The Contractor will start work on June 30.
- The work will consist of resurfacing and the addition of bicycle lanes, curb reconstruction, and drainage repair.

Current Projects:

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

- Contract E5Z93
- Project Start: March 2021
- Estimated Completion: Summer 2022

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- Contractor is performing concrete work throughout the project. Crews are also working on drainage, conduit tie-ins and pedestrian poles. In addition, paving is scheduled to start on the project.

439880-7 Orange County Pedestrian Lighting Bundle G

- Contract T5638
- Project Start: January 2021
- Estimated Completion: Summer 2022
- Contractor is making intersection roadway lighting improvements on S.R. 426.

441144-1 & 435733-1 S.R. 527 (Orange Avenue) Resurfacing from S.R. 482 (Sand Lake Road) to Mandalay Road

- Contract T5717
- Project Start: August 2021
- Estimated Completion: Summer 2022
- The contractor is realigning crosswalks to comply with Americans with Disabilities Act (ADA) requirements, improving drainage and pedestrian signals, installing signs and pavement markings, and resurfacing existing roadway to accommodate buffered bike lanes.

447807-1 Smart Orlando Downtown Advance

- Contract E59A5
- Project Start: June 2022
- Estimated Completion: Summer 2023
- The contractor is installing hardware and software to provide Transit Signal Priority (TSP) operations for signalized intersections and LYNX Buses in Orange County.

442880-1 S.R. 500 / U.S. 441 S.R. 500 / U.S. 441 from S.R. 429 Connector to Jones Avenue Resurfacing

- Contract: E58A2
- Contractor: Hubbard Construction Co.
- Project Cost: \$5.8 million
- Project Start: May 2022
- Estimated Completion: Early 2023
- The Contractor is performing clearing, grubbing, and starting to install storm pipes and sidewalks.

437634-1 S.R. 551 (Goldenrod Road) from S.R. 408 to S.R. 50

- Contract T5718
- Contractor: Southland Construction, Inc.
- Project Cost: \$11.25 million
- Project Start: August 2021
- Estimated Completion: Summer 2023
- The Contractor is performing night work on the storm drainage system. They continue to conduct force main work and water main and underdrain work during the day.

OSCEOLA COUNTY

Upcoming Projects:

None.

Current Projects:

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: Summer 2022
- Contractor is sodding ditches, installing sidewalk, and mounting light poles and bases. Crews are also paving and working on the sound wall and driveway turnouts, install signs, add lanes, traffic signals, drainage improvements, install signs and pavement markings, and resurface existing roadway.

423446-9 SunRail Vehicle Storage and Light Maintenance Facility (VSLMF) Noise Wall

- Contract E59A0
- Project Start: September 2021
- Estimated Completion: Fall 2022
- Contractor is building a noise wall at the Vehicle Storage and Light Maintenance Facility (VSLMF) for the Central Florida Rail Corridor (CFRC) near Kissimmee, Florida along the Old Tampa Highway.

437451-1 S.R. 530/U.S. 192 (West Vine Street) from east of Shingle Creek Regional Park to east of Hoagland Boulevard

- Contract T5716
- Project Start: October 2021
- Project was completed on June 30, 2022.

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
- Project Start: July 2021
- Project was completed on May 26, 2022.

443958-1 & 444329-1 S.R. 400 (I-4) from Polk County line to west of S.R. 417

- Contract T5728
- Project Start: November 2021
- Estimated Completion: Summer 2023
- Contractor is milling and resurfacing, creating base work, shoulder treatment, drainage improvements, shoulder gutter, lighting, overhead sign structures, guardrail, bridge culvert widening, bridge rail retrofit, pavement removal, and signing and pavement marking.

444187-1 S.R. 400 (I-4) at C.R. 532 (Champions Gate Boulevard) DDI from Goodman Road to Kemp Road

- Contract T5715
- Project Start: July 2021
- Estimated Completion: Fall 2022
- Contractor is converting the existing diamond interchange to a diverging diamond interchange (DDI). This includes adding curb and gutter sections; and modifying stormwater ponds for the proposed roadway improvements.

447139-1 Pile Jackets, Joint Replacement Bridge Nos 920151 (SB) & 920152 (NB) Carrying S.R. 600 (U.S. 17/92) over Shingle Creek

- Contract E57A6
- Project Start: March 2022
- Estimated Completion: Summer 2022
- Contractor is rehabilitating and repairing the piles and joints on the southbound and northbound bridges that cross Shingle Creek.

SEMINOLE COUNTY

Current Projects:

415030-6 Oviedo Ultimate S.R. 426 / C.R. 419 from Pine Avenue to Avenue B

- Contract: T5736
- Contractor: Masci Construction
- Project Cost: \$18.2 million
- Project Start: January 2022
- Estimated Completion: Summer 2024
- The Contractor is performing water main work, clearing, and grubbing. Lawton Avenue is currently closed throughout the summer for water main installation.

441019-1 S.R. 419 from U.S. 17-92 to S.R. 434

- Contract: T5720
- Contractor: Southland Construction, Inc.
- Project Cost: \$4.5 million
- Project Start: November 2021
- Estimated Completion: Late Spring 2022
- The Contractor is performing signalization, beginning storm drainage installation, and forming curbs, gutters, and sidewalks.

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

- Contract: T5686
- Contractor: Masci Construction
- Project Cost: \$10.4 Million
- Project Start: March 2021
- Estimated Completion: Summer 2022
- The Contractor is performing pond construction and road widening construction. Paving will begin in a couple of weeks.

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

- Contract: T5680
- Contractor: Masci Construction
- Project Cost: \$5 Million
- Project Start: May 2020
- Estimated Completion: Summer 2022
- The paving crew will begin installing structural asphalt at Ronald Reagan Boulevard and Maitland Avenue.

MetroPlan Orlando - Project Development and Environmental Study Tracking - June 2022

Current PD&E Projects in MetroPlan Orlando Area

Agency	FM#	Project Name	County	Project Manager	Firm	Class of Action	LDCA Anticipated	Design Funded FY	Design Funded Amount	Design Status	ROW Funded FY	ROW Funded Amount	Construction Funded FY	Construction Funded Amount
FDOT-D5	437200-1	US 17/92 from Polk County Line to 1,900' West of Poinciana Blvd	Osceola	Mark Trebitz	VHB	Type II CE	Aug-23	Tentative Programmed outer year FY 26	\$6.95 M	NA	Not funded	NA	Not funded	NA
	437174-2	SR 535 from US 192 to SR 536/World Center Drive	Osceola	Mark Trebitz	Metric Engineering	Type II CE	Jun-23	Tentative Programmed outer year FY 26	\$5.19 M	NA	Not funded	NA	Not funded	NA
	447724-1	Truck and Freight Alternative Site Analysis	Osceola Orange Seminole Volusia	Mark Trebitz	VHB	Osceola: TBD Orange: TBD Seminole: TBD Volusia: TBD	Site 1&2: Fall 2022 Site 3&4: TBD	Site 1 TBD - FY 22; Site 2 TBD - FY 24 * Further sites Design not yet funded.	Site 1 TBD - \$2 M Site 2 TBD - \$2.17 M	PE Begin 6/3/22	Site 1 TBD - FY 24-25 * Further sites ROW not funded yet	Site 1 TBD - \$10.62 M * Further sites ROW not funded yet	Site 1 TBD - FY 26 * Further sites ROW not funded yet	Site 1 TBD - \$13.36 M * Further sites ROW not funded yet
Florida's Turnpike Enterprise (FTE)	444007-1	Widen Turnpike Mainline from SR 408 to SR 50	Orange	Rax Jung	RS&H	SEIR	Dec-22	Not funded	Not funded	NA	Not funded	NA	Not funded	NA
	446164-1	Widen Western Beltway from I-4 to Seidel Road	Orange & Osceola	Rax Jung	RS&H	SEIR	Nov-22	Not funded	Not funded	NA	Not funded	NA	Not funded	NA
	446581-1	Extension of Poinciana Parkway from CR 532 to I-4/SR 429 Interchange	Osceola & Polk	Rax Jung	RS&H	Type II CE	Jun-23	Not funded	Not funded	NA	Not funded	NA	Not funded	NA
Central Florida Expressway Authority (CFX)	-	SR 414 Expressway Extension	Orange & Seminole	Dana Chester	Jacobs	PEIR	Jun-22	FY 2023 FY 2024 FY 2025	\$10M \$14M \$4M	NA	NA - No new ROW anticipated	NA	FY 2026 FY 2027	\$113M \$150M
	-	Northeast Connector Expressway Phase 1	Osceola	Dana Chester	RS&H	PEIR	Jun-22	Not funded	Not funded	NA	Not funded	NA	Not Funded	NA
	-	SR 429 / Binion Road Interchange	Orange	Dana Chester	Balmoral	PEIR	Nov-22	FY 2023 FY 2024 FY 2025	\$0.5M \$1.3M \$0.5M	NA	FY 2026	\$0.5M	FY 2026 FY 2027	\$9M \$19M
	-	SR 528 / Dallas Boulevard Interchange	Orange	Dana Chester	Balmoral	PEIR	Feb-23	FY 2023 FY 2024 FY 2025	\$1M \$3.5M \$1.5M	NA	NA new ROW anticipated	NA	FY 2026 FY 2027	\$23M \$48M
	-	Southport Connector Expressway from Poinciana Pkwy to Canoe Creek Rd (CR 523)	Osceola & Polk	Dana Chester	Volkert	PEIR	Apr-23	Not funded	Not funded	NA	Not funded	NA	Not funded	NA
Upcoming PD&E Projects in MetroPlan Orlando Area	-	SR 417 to Sanford Orlando International Airport Connector	Orange	Dana Chester	Jacobs	CF&M	Feb-23	Not funded	Not funded	NA	Not funded	NA	Not funded	NA
Agency	FM#	Project Name	County	PD&E FY	PD&E Amount	Anticipated Class of Action								
FTE	444006-1	Widen Turnpike Mainline from Sand Lake Road to SR 408	Orange	2026	\$4M	SEIR								
FTE	423374-3	Widen Turnpike Mainline from SR 60 to Kissimmee Park Road	Osceola	2026	\$4M	SEIR								

Air Quality Monitoring: Ozone Attainment Status

January - May

As of June 1, 2022

Seminole State College (#C117-1002)		
Year	Fourth Highest 8-Hour Average (Displayed in Parts per Billion)	Date
2022	59	30-Mar
2021	62	3-Apr
2020	60	28-May
2019	62	16-Mar

2021 3-Year Attainment Average: 61

2022 Year-to-Date 3-Year Running Average: 60

Change (1)

Osceola Co. Fire Station - Four Corners (#C097-2002)		
Year	Fourth Highest 8-Hour Average (Displayed in Parts per Billion)	Date
2022	59	2-Mar
2021	62	22-Apr
2020	60	23-Mar
2019	72	10-May

2021 3-Year Attainment Average: 65

2022 Year-to-Date 3-Year Running Average: 60

Change (5)

Lake Isle Estates - Winter Park (#095-2002)		
Year	Fourth Highest 8-Hour Average (Displayed in Parts per Billion)	Date
2022	64	30-Mar
2021	60	3-May
2020	62	28-May
2019	65	17-Mar

2021 3-Year Attainment Average: 62

2022 Year-to-Date 3-Year Running Average: 62

Change 0

Skyview Drive (#L095-0010)		
Year	Fourth Highest 8-Hour Average (Displayed in Parts per Billion)	Date
2022	60	14-May
2021	62	3-May
2020	54	21-Mar
2019	61	11-May

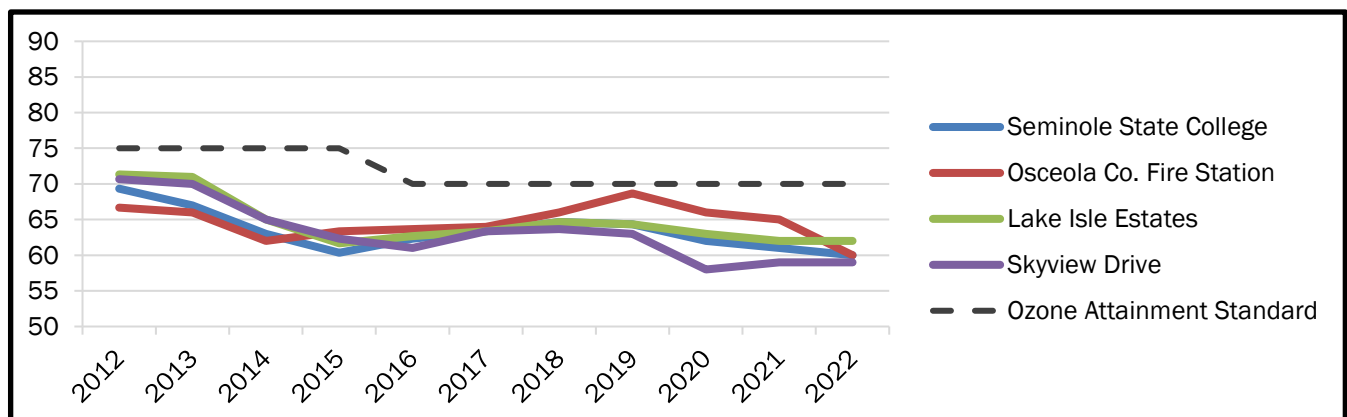
2021 3-Year Attainment Average: 59

2022 Year-to-Date 3-Year Running Average: 59

Change 0

10-Year Historic Ozone Attainment Status

(Displayed in Parts per Billion)

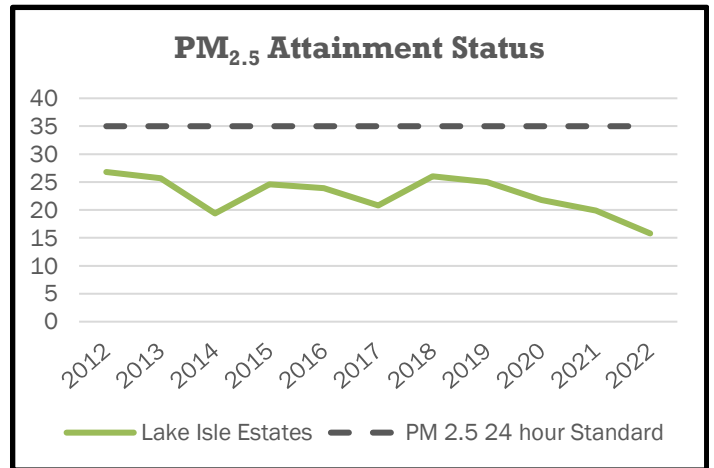


Source: Florida Department of Environmental Protection

Air Quality Monitoring: Particulate Matter 2.5 Attainment Status As of June 1, 2022

Lake Isle Estates - Winter Park (#095-2002)		
Year	Daily Average PM _{2.5} (micrograms per cubic meter)	Date
2022	16	1-Jan
2021	20	5-Feb
2020	22	15-Apr
2019	20	22-Jun

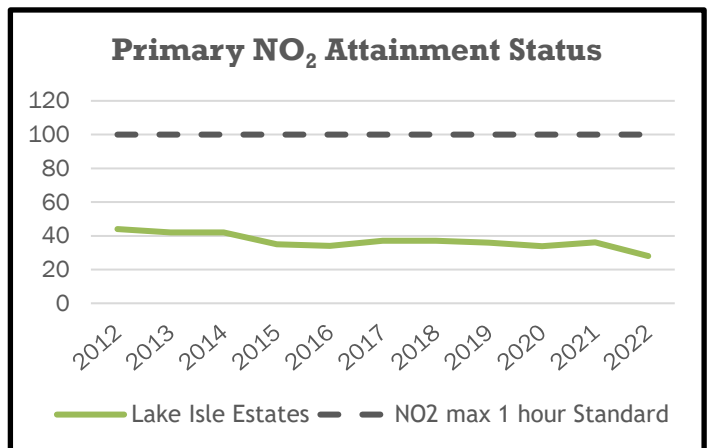
PM _{2.5} 24 hour NAAQ Standard	35
98th percentile, 3 year average - 2022	19
98th percentile, 3 year average - 2021	21



Air Quality Monitoring: Primary NO₂ Attainment Status As of June 1, 2022

Lake Isle Estates - Winter Park (#095-2002)		
Year	Primary NO ₂ max one hour average (Parts per Billion)	Date
2022	28	4-Mar
2021	36	6-Apr
2020	34	10-Dec
2019	31	22-Mar

NO ₂ max 1 hour average NAAQ Standard	100
98th percentile, 3 year average - 2022	33
98th percentile, 3 year average - 2021	34



Source: Florida Department of Environmental Protection

Memorandum

June 15, 2022

To: Community Advisory Committee
From: Mighk Wilson, Bicycle & Pedestrian Planner
Subject: June 2022 Bicycle & Pedestrian Activity Update

City of Kissimmee

The City continues to work on installing Rectangular Rapid Flashing Beacons (RRFB's) at intersections with safety concerns. Four RRFB's will be installed at two intersections this summer.

City of Casselberry

The City has completed construction of the Quail Pond Circle Complete Street/Pedestrian Connectivity project, which features a new shared use path connecting N Sunset Drive to Lake Concord Park. The Queens Mirror Circle Pedestrian Safety Improvements project has also been completed, which features a new RRFB (rectangular rapid flashing beacon) and speed feedback signs. Recent data from the Best Foot Forward program at this location indicated a 90% driver yield rate after improvements were completed, compared to a 43% yield rate measured prior to installation of the improvements. The City has also installed a "pedestrian gateway", a low cost crosswalk enhancement using in-street signs, across Crystal Bowl Circle at the Casselberry Elementary School entrance.

Seminole County

Lake Hayes Rd Sidewalks

Limits: SR 434 to Riverdale Court

Status: Majority of construction is complete.

E Citrus St/Virginia/E Hillcrest/E Orange Sidewalks

Limits: Varies

Status: Majority of construction is complete.

I-4 Overpass Cross Seminole Trail Connector Remediation

Limits: Bridge segment

Status: Remediation work ongoing.

Celery/Mellonville Trail (Lake Monroe Loop)

Limits: Sanford Riverwalk to SR 415

Status: Design complete. ROW acquisition in process.

Hillview Dr Sidewalk

Limits: SR 434 to east of Durango Way

Status: Complete.

EE Williamson Rd Trail Connector

Limits: I-4 Bridge to CR 427/Ronald Reagan Blvd

Status: Construction NTP issued March 2022.

CR 419 at Snowhill Sidewalk

Limits: Snowhill Rd to 7th Street

Status: At 60% design plans.

Oxford Rd Drainage & Sidewalk

Limits: Derbyshire Road to East Blvd (sidewalk on west side only)

Status: At 90% design plans.

Old Lk Mary Rd Sidewalks

Limits: Windtree Ct to W 25th Street

Status: At 90% design plans.

Orange Blvd/CR 431 Safety Improvements (includes Ped/Bike enhancements)

Limits: SR 46 to Monroe Rd

Status: Design and ROW acquisition in process.

Cross Seminole Trail Connector Ramps at US 17-92

Limits: CST at US 17-92

Status: Coordination with FDOT underway.

Wymore Rd Drainage, Bike & Ped Improvements

Limits: Orange County line to Spring Valley Rd

Status: Design Complete, Construction Bid advertised.

Power Corridor Trail Study

Limits: SR 434 to Cross Seminole Trail

Status: Feasibility study complete, move to design next.

Seminole Wekiva Trail Tunnels at SR 434 and SR 436

Limits: SR 434 at Orange Blvd. SR 436 at Laurel St.

Status: Design RFP issued May 2022

Harmony Homes Subdivision Sidewalk

Limits: Various streets within the neighborhood.

Status: Construction RFP issued May 2022

SR 434 Improvements to include Roundabouts and Bike/Ped/Trail improvements

Limits: SR 417 to Franklin St.

Status: At 60% design plans

Sanlando Estates Sidewalks (Phase 1)

Limits: Various streets in the neighborhood

Status: Under construction

Goldie Manor Area Sidewalks

Limits: Various streets in the neighborhood.

Status: Under construction

Longwood Hills Rd Sidewalks

Limits: Heights Ln to Citrus Tree Ln.

Status: At 90% design plans

CR 426/Geneva Drive Sidewalks

Limits: Lake Charm Dr to approximately 600 feet east

Status: Project may not proceed. ROW issues

Forest Lake Dr Sidewalk

Limits: Academy Dr to SR 436.

Status: At 60% design plans

Howard Blvd Sidewalk

Limits: Longwood Lake Mary Blvd to end of road (approx. 3,000 linear feet)

Status: Construction RFP issued May 2022

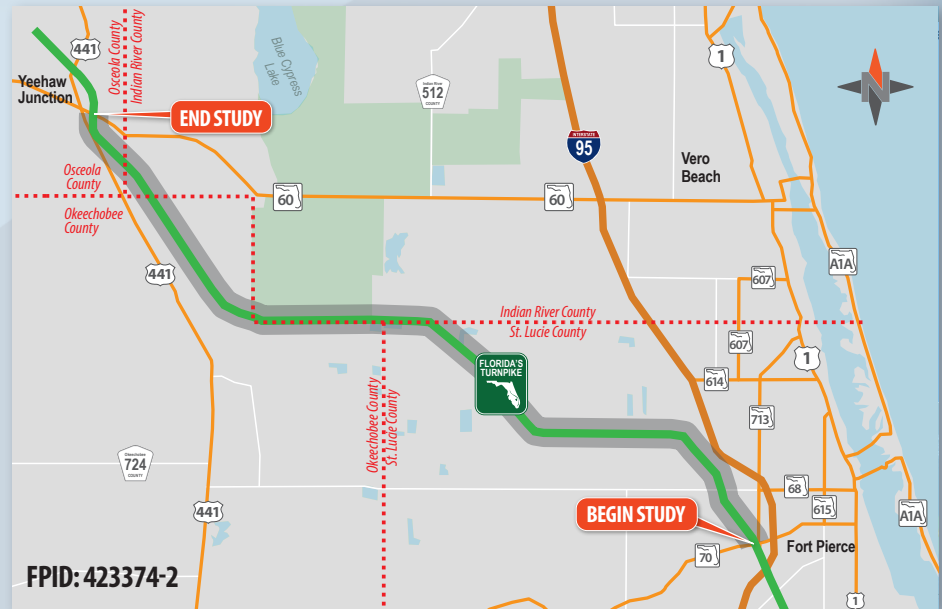
Oranole Road/Linneal Beach Sidewalks

Limits: Orange County Line to Playa Way.

Status: Public Involvement underway

Fast Facts

- ✓ Study the corridor from north of SR 70 (Mile Post 152) to north of SR 60 (Mile Post 193), which is approximately 41 miles long and is located in St. Lucie, Indian River, Okeechobee and Osceola Counties
- ✓ Widening of Florida's Turnpike (SR 91) from four to six lanes will be evaluated
- ✓ Improve/modify the SR 60 interchange at Yeehaw Junction will be evaluated
- ✓ Evaluate three new potential interchanges (locations are to be determined)



Project Need And Benefits

- ✓ Increases capacity
- ✓ Meets future travel demands
- ✓ Addresses roadway deficiencies

Project Description

Florida's Turnpike (SR 91) from North of SR 70 (Okeechobee Road) to North of SR 60 (Yeehaw Junction) Study will analyze impacts to widening approximately 41 miles of Florida's Turnpike. Florida's Turnpike Enterprise identified the need to widen this portion of Florida's Turnpike (SR 91) to add capacity that will accommodate future traffic volumes of freight and passenger vehicles linked to the projected growth in population and industry for the year 2045. The proposed project will provide improvements to Florida's Turnpike (SR 91) evacuation route for Southeast Florida. The PD&E Study will evaluate the widening of Florida's Turnpike (SR 91) from four to six lanes, evaluate improvements to the existing SR 60 interchange, and evaluate three potential new interchange locations.

Project Status

This PD&E Study is anticipated to be completed by Fall 2024. Design, Right of Way, and Construction phases are not currently funded but will be considered for funding upon a determination of a recommended alternative and the completion of the PD&E Study.



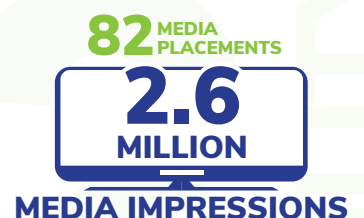
SAVE THE DATE!

Mark your calendars for Mobility Week 2022
from October 21 – 28, 2022.

Join communities around the state to promote safe and sustainable transportation choices. During Mobility Week, cities, counties, and transportation agencies host events and offer special promotions to encourage Floridians to try new transportation options.

To partner with FDOT, send an email to
Contact@MobilityWeekFL.com

Looking back at Mobility Week 2021



July 12, 2022

To: Board and Committee Members

From: Gary Huttman, Executive Director

Subject: Release of Smart Growth America's *Dangerous by Design* 2022 Report

Today, Smart Growth America released the latest edition of its [Dangerous by Design report](#) ranking the most dangerous metro areas in the nation for pedestrians. Here are highlights from the 2022 report:

- **Central Florida no longer tops this undesirable list** of most dangerous metro areas for pedestrians – **we are now #8**. Overall, seven of the top 20 most dangerous metros are Florida cities. Florida has also improved on the list of states, now ranked at #2 (previously #1).
- The 2022 version uses a **new methodology**, so a direct comparison to previous versions of the report is not possible. The new methodology measures pedestrian deaths per 100,000 residents over a five-year timeframe (2016-2020 compared with 2011-2015). The walking commute percentage and pedestrian danger index are no longer used. We welcome this change, as it provides a more apples-to-apples comparison to other regions and better characterizes areas like ours with few walking commutes.
- The report notes that the situation for pedestrians is getting worse in nearly every metro across the nation, so a drop in rankings doesn't necessarily mean good news. It just means other areas got worse more quickly. During the pandemic, while driving went down, fatalities went up nationally. Higher speeds, road design, and larger vehicles were noted as contributing factors in the increased pedestrian deaths.
- From 2016-2020, Central Florida's pedestrian fatality rate per 100,000 residents was 3.37, with a total of 431 deaths. (Note: The report uses the urbanized area, which includes Orange, Osceola, Seminole and Lake counties.) The pedestrian fatality rate went down in 2020 during the pandemic. The 2021 data show we're still on an overall downward trend from pre-pandemic rates in 2016-19.

Central Florida's change in ranking shows a slowing in the most dangerous pedestrian trends, and we view this as a direct result of the hard work and partnership in our region over the past decade. But there's still a lot of work ahead of us. As my memo on this topic last year said, we're committed to working on this issue with you until our region comes off this list and until no one dies walking on our roads.

To that end, MetroPlan Orlando is pursuing a federal grant through USDOT's *Safe Streets and Roads for All* program to help create a regional vision zero plan with specific local actions to move the needle on pedestrian safety – **and we need your help**. We're asking as many local government and agency partners as possible to join us in this grant application. We've already been coordinating with technical staff to gauge initial interest. **To our elected officials, I ask that you give your wholehearted support** to your jurisdiction's staff to join this grant pursuit. While some of this pedestrian safety work has already begun across the region, this initiative would advance the process significantly.

We'll continue to build support for pedestrian safety and to provide the facts, so that we can all work together to improve our region. Additional information about today's report and our efforts is available on our website here:

- *Region Moves Ahead to Protect Pedestrians* [News Post]
<https://metroplanorlando.org/transportation-news/region-moves-ahead-to-protect-pedestrians/>



Smart Growth America
Improving lives by improving communities



National Complete
Streets Coalition

DANGEROUS BY DESIGN 2022



Smart Growth America advocates for people who want to live and work in great neighborhoods. We envision a country where no matter where you live, or who you are, you can enjoy living in a place that is healthy, prosperous, and resilient. Learn more at www.smartgrowthamerica.org.



The National Complete Streets Coalition, a program of Smart

Growth America, is a non-profit, non-partisan alliance of public interest organizations and transportation professionals committed to the development and implementation of Complete Streets policies and practices. A nationwide movement launched by the Coalition in 2004, Complete Streets is the integration of people and place in the planning, design, construction, operation, and maintenance of transportation networks. www.completestreets.org



Smart Growth America project team: The primary authors were

Ebony Verson, Abigail Grimminger, and Stephen Kenny, with additional writing by Rayla Bellis and Steve Davis. Becca Buthe and Chris McCahill conducted all analyses. Becca Buthe created all maps and figures throughout this report. Design and editorial by Steve Davis, with editorial assistance by Eric Cova and Helen Hope. This report was produced under the leadership of Beth Osborne, Vice President of Transportation. Cover photo by Forever Ready Productions. Released in July 2022. Available at smartgrowthamerica.org/dangerous-by-design

This project was made possible by:

The **Centers for Disease Control and Prevention**

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OT18-1802 supporting the **Active People, Healthy**

NationSM Initiative, a national initiative led by

the CDC to help 27 million Americans become

more physically active by 2027. Learn more: <https://www.cdc.gov/physicalactivity/activepeoplehealthynation/index.html>. The findings and



conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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Note: We are honored to include four special topical supplements from **Strong Towns** (pp. 13-14), the **National Association of City Transportation Officials** (pp. 19-21), **America Walks** (pp. 24-25), and **The Fines and Fees Justice Center** (pp. 37-38). Authors are noted with each insert.

This crisis will continue to get worse until those with the power finally make *safety* for everyone who uses our roads the top priority.



I. Summary

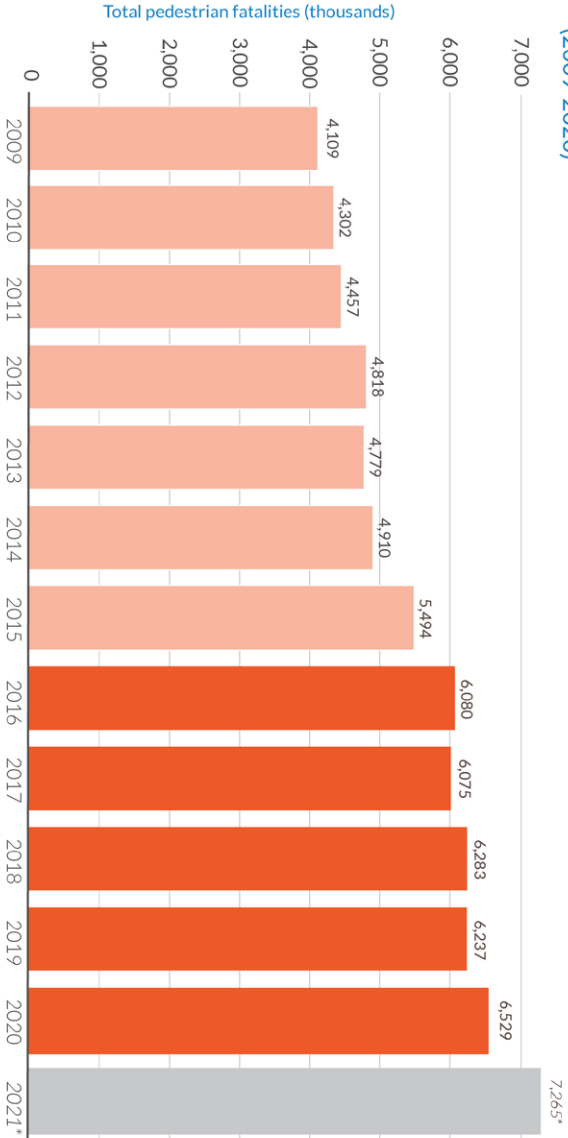
While the unprecedented COVID-19 pandemic upended many aspects of daily life, including how people get around, one terrible, long-term trend was unchanged: **the alarming increase in people being struck and killed while walking.**

More than 6,500 people—nearly 18 per day—were struck and killed while walking in 2020, a 4.7 percent increase over 2019, even as driving decreased overall because of the pandemic’s unprecedented disruptions to travel behavior.¹

The number of people struck and killed while walking has been steadily increasing since 2009, reaching another new high in 2020 and likely a historic one in 2021.

Pedestrian fatalities are up 62 percent since they began steadily rising in 2009 following years of improvement.

U.S. pedestrian fatalities (2009-2020)



*This estimate for 2021 is produced by applying the 11.5 percent increase for 2021 projected by the Governors Highway Safety Administration (GHSA) to the federal FARS data for 2020 used in this report.

The pandemic magnified what we've always known: Our nation's streets are **dangerous by design**, designed primarily to move cars quickly at the expense of keeping everyone safe. The result in 2020 and 2021 was a significant increase in all traffic fatalities, even with less driving overall.

2020's record high also marks an astonishing **62 percent increase since 2009**, the year these deaths first started increasing after years of improvement. In that time period drivers struck and killed a total of **64,073** people while walking. As with past editions, this report ranks the most deadly states and metro areas, though in a new way. *See section IV for the state/metro rankings.*

This problem is growing even worse

While Dangerous by Design uses federal data that is complete only through the end of 2020, preliminary data for 2021 is jaw-dropping. According to early estimates from the Governors Highway Safety Association (GHSA) released in May 2022, 7,485 people walking were struck and killed in 2021, **which would be the highest number in 40 years and one of the biggest single-year jumps**

in decades.² While the official 2021 number from the federal data set used in this report is likely to differ from GHSA's preliminary estimates, we expect the increase for 2021 to be between 11 and 13 percent higher than the 6,529 deaths recorded in 2020, a historic jump.

Our new approach to assessing pedestrian danger

The impact of the pandemic on the data typically used in this report, coupled with significantly higher fatality rates during the pandemic, required a new approach to assessing pedestrian danger, which also allowed us to address the unique impacts of the pandemic. One effect is that the rankings in this edition are not directly comparable to previous editions of Dangerous by Design. *See section III for more on how we changed our approach and the effect on the rankings.*



Photo by Steve Davis / Smart Growth America

"Walking" and inclusive language

The data in this report specifically examines only the deaths of people walking and tends to use the shorthand of "pedestrians" for this reason. The federal government groups people using assisted mobility devices in the same category with things like skateboards, making it challenging to isolate the impact on people with disabilities. We fervently believe that making our streets safer for everyone absolutely means for people of all ages and abilities, whether walking, biking, or using assistive devices like wheelchairs or walkers. We continue to look for ways to better incorporate data that includes the danger that people with disabilities face on our roadways. Across the board, better data are required to assess the impact of current infrastructure. *See our data recommendations in section II.*

How design produces danger

Roadway design has a strong impact on

how people drive, often more influential on driver behavior than the posted speed limit. While speed limit signs may only be posted every few blocks or miles, the road's design is ever-present, continually providing guidance and visual cues. While there are myriad factors involved in these deaths, our streets are **dangerous by design**, designed to move many cars quickly at the expense of safety for everyone who uses them.

How did this become so commonplace?

In the 1950s, we started building a system of separated highways to move vehicles quickly over long distances, removing intersections and other points of conflict, development, and pedestrians because speed was not compatible with the complexity of cities and towns. But somewhere along the way, we started applying this same high-speed highway design within complex urban environments, while keeping all of the conflicts and complexity in place, and the result has been unmitigated carnage.

When roads are wide and straight, lanes are wide and plentiful, and intersections are infrequent or non-signalized, people feel safe and comfortable driving faster—even when the speed limit is low—as the visuals of Union Avenue in **Memphis, TN** illustrate on the following two pages.

Higher speeds make conflict harder to spot and avoid and crashes more deadly.

The higher the speed, the narrower the driver's field of vision, making it harder to see and anticipate potential problems by responding and slowing down or stopping the vehicle. And the higher the speed, any crashes that do occur are far more likely to lead to serious injury or death.

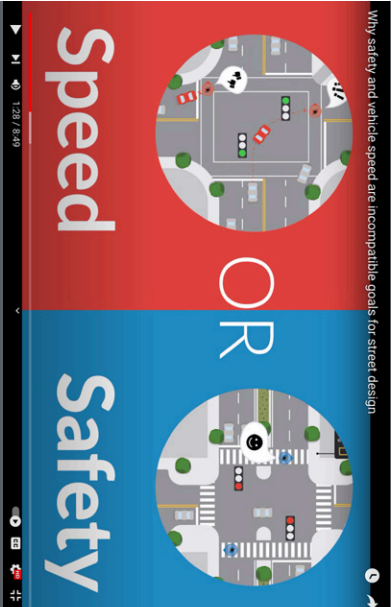
We send drivers two conflicting messages with low speed limits but designs that nudge them toward high speeds. And then, when drivers fail and strike someone walking or crossing the street, we rush to blame the driver or person walking in spite of the fact that the transportation agency should be held responsible for their design choices.

Read an insert from the National Association of City Transportation Officials (NACTO) on page 19-21 for more on safer street designs.

WATCH: Visualizing safety vs speed

For a richer, visual explanation of how street design impacts the speed of vehicles and why we have to choose between **speed or safety**, do not miss this video from Smart Growth America and the National Complete Streets Coalition explaining why prioritizing both safety and keeping cars moving quickly—outside of limited access roads like interstate and freeways—is impossible.

smartgrowthamerica.org/safety-vs-speed



Typical arterial roadway design

The design of Union Ave., located in the heart of **Memphis, TN** is typical of the **most dangerous roads** for people on foot within metro areas: **60 percent of all 2020 deaths occurred on non-interstate arterial highways like this one.**^a (They are most often designed and controlled by the state DOT, rather than the city or locality.) At right are five ways that speed is prioritized on Union Ave. at the expense of safety, and the contradictory messages sent to drivers: *expect to see and yield to people outside of vehicles*, and *expect to travel fast all the time*.



Even the signalized intersections on Union near here don't always have crosswalks on all sides.

^a Pedestrian Traffic Fatalities by State: 2021 Preliminary Data, Governors Highway Safety Association, 2022. www.ghsa.org/resources/Pedestrians22

1

Design can be more influential on behavior than speed limits. Though the limit ranges from 25-35 mph, this road is designed for much higher speeds. It's long and straight, with clear sight lines and five travel lanes for maximum vehicle throughput, resulting in higher speeds. And though the speed limit changes, the design never does.

2

Other streets regularly intersect Union, but lack crosswalks or signals, because keeping vehicles from stopping (speed) is prioritized ahead of providing frequent crossings (safety). There are also numerous curb cuts and driveways, resulting in dozens of intersections for people walking.

3

Numerous destinations means that more people will be present. There are grocery stores, a college, a high school, a hospital, shops and stores, and hundreds of homes and higher density apartment buildings.

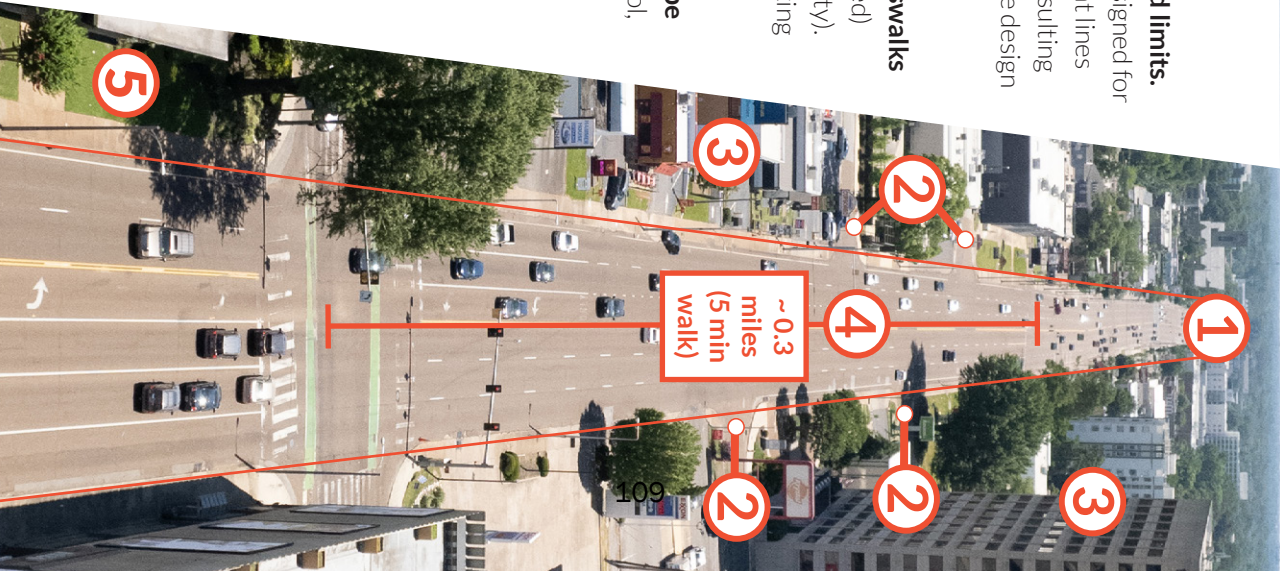
4

Marked, signalized crosswalks are located as much as 0.4 miles apart, potentially requiring a 10-minute round trip to reach a destination that's directly across the street. Multiple bus stops are also located in between these distant signalized crosswalks.

5

Sidewalks exist, but as an afterthought. They are narrow with numerous curb cuts for turns and frequent obstructions, and no buffer between people walking and vehicles moving at high speeds.

Photos by Forever Ready Productions



Most fatalities on Union Avenue occur at intersections

- 1 All four gently rounded corners allow right turns at high speeds, precisely when pedestrians have the right-of-way. Sharper turns require drivers to slow down and turn more slowly. In fact, a recent study shows that a 30-foot turning radius vs. a 10-foot radius will probably result in 30 percent more pedestrian crashes.^a (See inset at bottom right.)
- 2 These sweeping corners—which exist for speed rather than safety—increase the distance required to cross on foot, putting people in harm’s way for more time, or making it impossible to cross in time for the young, old, or disabled.
- 3 Existing crosswalks are faded or invisible. When signalized intersections are far apart, as they are on Union, it’s even more vital that they be highly visible.
- 4 Sidewalks also have obstructions (utility poles, boxes, etc.) and lack rubberized or high-visibility markings to help all people safely cross. For people in wheelchairs or pushing strollers, sidewalks with obstructions can force them into the street to pass.

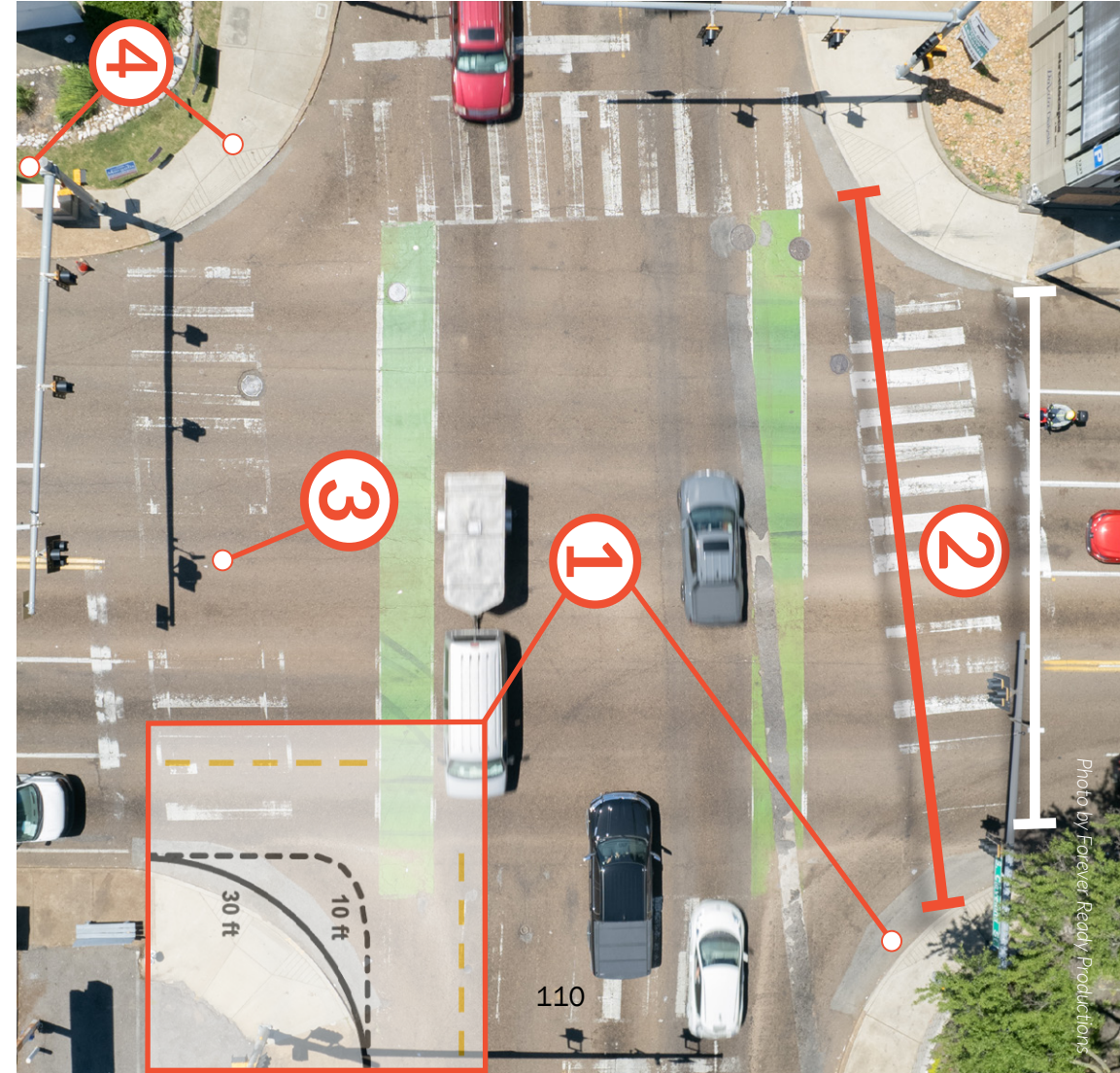


Photo by Forever Ready Productions

^a State Smart Transportation Institute, “Tight corners save lives,” <https://ssti.us/2022/06/13/tight-corners-save-lives/>

The pandemic exacerbated existing disparities

Although everyone is affected by dangerous street design in some way, not everyone shares this burden equally. Despite other changes, the pandemic perpetuated existing disparities in who is being killed: Black and Native Americans. Older adults and people walking in low-income neighborhoods were also struck and killed at much higher rates than other populations in 2020, as with past years.

The conditions people face when they want to walk or bike—whether to work or for recreation—are not the same for all Americans. Low-income communities are significantly less likely to have access to parks and other opportunities for safe recreational walking and are less likely to have sidewalks, marked crosswalks, and street design to support safer, slower speeds.^{3,4} Lower-income neighborhoods are also much more likely to contain major arterial roads built for high speeds and higher traffic volumes at intersections, exacerbating dangerous conditions for people walking.⁵ *Read more about the inequality of this deadly epidemic in section V.*

The pandemic had profound impacts on travel behavior that are likely here to stay

One of the most noticeable changes during the pandemic's onset was the decrease in vehicle traffic across America's cities. In many communities, the air became cleaner and quieter, and many cities temporarily returned space to pedestrians and cyclists. Yet many places saw a significant spike in deaths, even as driving dropped precipitously. This drop in driving likely contributed.⁶



Overall in 2020, **all traffic fatalities were up 6.8 percent** (including pedestrians, drivers, and others using our streets). This increase is even more notable in light of the significant drop in driving.⁷ Our traffic deaths *per mile driven* increased by 21 percent compared to the 2019 rate, reaching the highest death rate per mile driven since 2007.

Seeing driving go down and deaths go up should call into question the long-held conventional wisdom among policymakers and transportation professionals that traffic fatalities are inextricably linked to the amount of driving, which is one of the reasons the GHSA and others have traditionally reported fatalities per mile driven. But during the large decrease in driving during COVID, congestion evaporated, speeds increased dramatically, and more people were killed.

It was incredibly ironic: **Congestion, something transportation agencies spend billions to eliminate, seems to have been slowing traffic and reducing deadly crashes.**⁸ According to recent studies, there was a significant increase in speeding and even reckless driving during the pandemic, contributing to the severity of crashes and the number of lives lost on our roads during 2020.⁹

The US is an outlier when it comes to these trends. It's also worth noting that, although driving went down almost everywhere around the world during the pandemic, the US was one of the only countries in the developed world that saw an increase in the deaths of people walking when that dip in driving occurred. Most peer countries have seen continuous *drops* in fatality rates over the past three decades. However, the US has had much higher fatality rates *and* the number of deaths has increased since 2009.^{10,11}

A study from the International Transport Forum found that the US was one of the only three of their 63 member countries that saw an increase in fatalities during the pandemic.¹² The other two, Ireland and Switzerland, saw smaller increases and started from a much lower baseline.

Seeing driving go down while deaths went up should call into question the long-held belief that traffic fatalities are inextricably linked to the amount of driving.

More people walked more in 2020, but that didn't lead to more deaths in all metro areas

While some metro areas did get marginally less deadly in 2020, **pedestrian deaths increased overall in 67 of the 100 largest metro areas and 33 states** when compared to the four years prior to the pandemic. There are many lessons that we can draw from both groups.

The pandemic unleashed significant untapped demand for more walking in nearly every community across the country. New, first-time analysis in this year's report using information from a company called **Streetlight Data**—based on anonymized information from cell phones and mobile devices—shows that walking trips (for all purposes) increased during the pandemic in every state and metro area we analyzed, regardless of climate or geography.

But for the most part, the metro areas that were on average already more deadly and where a lower share of people walked to work before the pandemic are the ones where death rates increased the most. Walking trips also increased the most in these metro areas, indicating significant untapped demand for more walking in these places. Over in the metro areas that were less deadly before the pandemic—also where higher shares of people were walking to work on average—death rates decreased or only increased slightly during the pandemic on average, even with the increase in walking.

This underscores the fact that these tragedies are preventable. More walking does not have to equal more deaths, if streets are designed with safety as the top priority. *Read Section VI for more about how we used Streetlight Data to analyze changes in walking and the impact on metro areas.*

What are we waiting for?

Too many agencies and decision makers with a hand in building our transportation system have been asleep at the switch, believing (or just hoping) that safety will improve while only making incremental changes to a deadly status quo. The result will continue to be ever-increasing and record deaths of people walking and rolling, and we'll continue in this "Groundhog Day" loop until those with the power to do so take an active role in making safety for all people the top priority of every dollar spent. To do so, they will have to unwind the deeply embedded, invisible yet powerful emphasis on speed, which is completely incompatible with safety.



Traffic engineers do not share your values

By Charles Marohn, Founder, Strong Towns

When American engineers design streets, they start the process using the values of the engineering profession.

The engineer doesn't stop to consider that their values might be questioned by others, that their core values might, in fact, be rejected by most of society. It doesn't cross their minds—not because they are immoral—but because they don't recognize their values as values.

For the engineer, it's just the way things are done. It's standard practice. When an engineer sits down to design a street, they begin the process with the design speed. I've been in countless meetings where engineers presented design plans and even preliminary studies for a street project. Never, and I mean never, was any elected official or any member of the public asked to weigh in on the design speed.

Never once did I hear one of my fellow professional engineers say, "So, what are you trying to accomplish with this street in terms of speed?" No. The design speed is solely the purview of the engineering professional. Why?

Choosing a design speed is, by its nature, an application of core values. When we pick a speed, we are selecting among different, competing priorities. Is it more important that peak traffic move quickly or is it more important to maximize the development potential of the street? Do we compromise the safety of people crossing on foot to obtain a higher

automobile speed, or do we reduce speeds in order to improve safety for people outside of a vehicle?

These are policy decisions. Shouldn't public officials be given the broad range of options and be allowed to weigh them against each other? Of course they should! So, why aren't they?

Many of my engineering colleagues will reply that they, the engineers who design streets, don't control the speed at which people drive and that speeding is an enforcement issue. Such an assertion should be professional malpractice. It selectively denies both what engineers know and how they act on that knowledge. For example, professional engineers understand how to design for high speeds. When building a high-speed roadway, the engineer will design wider lanes, more sweeping curves, wider recovery areas and broader clear zones than they will on lower-speed roadways. There is a clear design objective



If you need a sign to tell people to slow down...
you designed the street wrong.

#slowthecars

STRONG
TOWNS

(high speed) and a professional understanding of how to achieve it safely.

There is rarely any acknowledgement of the opposite: **that slow traffic speeds can be obtained by narrowing lanes, creating tighter curves, and reducing or eliminating clear zones.** High speeds are a design issue, but low speeds are an enforcement issue. That's incoherent.

The other pushback often given by professional engineers for why they, and not public officials, should set the design speed is that non-professionals are not qualified to do so. In 2016, I wrote "[Engineers Should Not Design Streets](#)," an article for which many of my fellow professionals accused me of being gratuitously provocative. I was not.

The design of streets begins with the establishment of priorities. It begins with an application of core values. Engineers generally lack the background, training, and understanding to make such a complex decision. Indeed, I think engineers have become uniquely unqualified to do so.

For local streets, setting the design speed is something that should be done only by policymakers and only after a broad and deep dialogue with the community about values and priorities. This is not a decision to be made through the myopic prism of one professional silo. It is too important for that.

If you are an elected official, demand that you and your elected colleagues set the design speed on your streets. Not the enforcement speed (that is often set by state law and can be difficult to get a waiver for) but the speed at which 85 percent of traffic will naturally flow at or below. You have this power. Exercise it.

If you are an engineering professional, recognize that establishing the design speed for a particular street is something you have an obligation to discuss with, at a minimum, the elected officials in the community.

You must give them options and inform them of the full range of alternatives and tradeoffs. Humble yourself to serve their priorities and resist the temptation to bully them into following yours.

If you are a member of the public concerned about the health and safety of your community, demand that the design speed of your streets be part of the conversation. You have all the expertise you need to be part of a dialogue about core values. And you have the right; don't let anyone take it from you. Setting these priorities—imposing a set of values—should not be the engineer's responsibility. It should be the responsibility of the entire community.

(Strong Towns adapted this supplement from an essay in the book [Confessions of a Recovering Engineer](#), by Charles Marohn. Learn more at [StrongTowns.org](#))



II. Addressing the problem: What can be done?

Photo courtesy of
Scott Crawford



Improving safety isn't a mystery, but inertia is hard to overcome

We know many of the factors responsible for these deaths, but we choose to continue designing and operating streets that prioritize the speedy movement of vehicles at the expense of safety for all people who use our streets. It's impossible to prioritize both safety and keeping cars moving quickly outside of limited access roads like interstate and freeways. On every other street in mixed-use environments where there are turns, curb cuts, and people walking, biking, or otherwise getting around outside of a car, safety and speed are fundamentally incompatible goals. We have a choice to make, and unfortunately for more than 55,000 Americans who were killed while walking over the last ten years, their safety has not been the top priority.

Changing these depressing outcomes requires a transportation paradigm shift within nearly every aspect of our current approach to designing, building, and operating our streets and roads, an approach that is deeply embedded in our policies, practices, standards, manuals, and professional cultures. Fundamental components of accepted street design actively put people at risk and

increase the likelihood that people walking and moving actively using assistive devices such as wheelchairs, walkers, sight canes, prosthetics, and scooters will continue to pay the—often deadly—price. These practices also can set drivers up to fail by making mistakes more common and the consequences more deadly, even when following the rules.

Unlike last year, there has since been a massive new infusion of federal transportation spending through 2021's infrastructure law, the Infrastructure Investment and Jobs Act (IIJA).¹³ This new law has been touted as a way to improve safety, but it merely allows more spending on safety. This cuts both ways, as this flexibility also allows less spending on safety, at the discretion of state and local leaders.

The following pages include a wide range of recommendations, from addressing the dangers of vehicles that are getting larger and heavier, to the measures and models that lead states to build unsafe streets in the first place, spanning national actions USDOT should take, all the way down to practical steps that cities, towns, and residents can take to make safety the top goal.

We can't properly evaluate safety without better, more comprehensive and timely data.

The only national dataset on traffic fatalities, the Fatality Analysis Reporting System (FARS), has numerous limitations. First, the 10-16 month lag in data makes it impossible to evaluate current or even very recent conditions. In a typical year, FARS data for the previous year is released sometime in the fall of the following year. This year, 2020 data took until April of 2022 to be released. Second, FARS data also fails to properly account for fatalities involving people with disabilities. While the National Highway Traffic Safety Administration recently made some improvements here, wheelchair and scooter users are still inappropriately grouped with road users like skateboarders and roller skaters. It's incredibly hard to evaluate safety with data that are never current and which fail to capture the full picture of who is harmed, where, and how. Local crash reporting that feeds into FARS has major issues too, such as a significant share of fatalities without race or ethnicity recorded, making it difficult to evaluate disparities with who is at greatest risk.

The pandemic also showed that we need better data on walking trips overall.

Transportation agencies focus almost exclusively on trips to work. But the work trip is a small minority of trips—even more so since COVID-19. Collecting comprehensive data on walking (similar to data from Streetlight Data we tap in this report) would help us measure the extent to which pedestrians are exposed to traffic danger. We can't say we care about a group of travelers that aren't counted.

DATA

FEDERAL & CONGRESS

Federal agencies must lead and use every tool at their disposal to improve safety and remove barriers to safety—especially those for which they are responsible.

First, USDOT should adopt the position that safety and speed are incompatible goals in cities, towns, villages and anywhere with many conflict points and vulnerable users; and they must stop allowing transportation agencies to claim safety benefits from congestion reduction projects because higher speeds on surface streets lead to more crashes and more deaths. Nor should USDOT use its "value of time" guidance to allow higher vehicle speeds to be credited as travel time savings, especially while failing to quantify the negative impacts on safety or increased time commuting for those traveling outside of a vehicle.

Second, NHTSA made progress by finally including pedestrian safety in their New Car Assessment Program proposed rule. However, additional improvements should be made to ensure that vehicle design does not impede direct vision of people in front of the car and incorporate pedestrian survivability into the ratings.

Third, FHWA should update design standards, like those in the Manual on Uniform Traffic Control Devices (MUTCD), to stop prioritizing vehicle speed over safety. Also, FHWA can release stronger clarifying enforcement on federal rules like those on the protection of nonmotorized transportation traffic (23 USC 109(m)).

USDOT should steer more funding toward improving safety, and provide transparent reporting on state spending.

USDOT must prioritize safety with the \$200 billion in discretionary competitive grants that they control from the the Infrastructure Investment and Jobs Act (IIJA). And then USDOT should steer the funding that goes out to states and metropolitan planning organizations to safety too. They could do this by monitoring and reporting on how much state funding is spent on improving safety for vulnerable users. And when states go through the required process of setting annual targets for improving safety, USDOT should use their bully pulpit to praise the states that are setting strong targets and meeting them, and they should point out the states that are taking federal taxpayers' money and setting targets for more people to die. Lastly, to make sure the local projects funded by new programs—like the Complete Streets set-aside within the Metropolitan Planning Program—contribute to reducing pedestrian fatalities, FHWA should include the best practices of a Complete Streets approach, including how to build equity, implementation, and other key tenets into their plans.

Congress should fully fund all programs intended for combating the rising rates of pedestrian fatalities.

The Healthy Streets Program and the Active Transportation Infrastructure Investment Program were created by the IIJA for protecting pedestrians, but these grant programs have so far remained unfunded by Congressional appropriators, so localities cannot take advantage of them. Congress should have made safety, and not state flexibility, the priority in the IIJA. Until they revisit the transportation program, they should at the very least fully fund these programs and others like RAISE that support safety improvements. If Congress truly cares about safety, they will not wait five more years until the next transportation authorization is due to make changes to the federal transportation program as a whole to ensure there is no flexibility to undercut or underfund clearly needed safety improvements.

In addition, Congress should enable stronger federal action by directing USDOT and FHWA to release stronger rules and guidance on protecting vulnerable road users.

States must make safety the top priority governing all street design decisions.

Instead of prioritizing moving vehicles faster in a one-size-fits-all approach to nearly every type of road, states should prioritize safe access to destinations for people walking on streets in developed areas, whether big urban areas or rural villages. This means the default approach should be building good, protected sidewalks and paths, and slowing traffic down to speeds that are appropriate for the inherently frenetic environment in busy corridors. (And prioritizing throughput only on limited access or separated highways.) It also means working with local land-use authorities to better connect communities and shorten the distances between key destinations. With walking trip rates increasing, the pandemic uncovered a massive unmet demand for walking for all purposes, including transportation. Many states need to change their mindset to treat walking and biking as important modes for everyday transportation, not merely leisure activities.

States must use the enormous freedom and flexibility of federal highway funds to prioritize safety.

State DOTs tend to fund safety projects with small, safety-specific programs while spending their remaining billions of federal highway dollars on roadway projects that increase vehicle speed and undermine their safety-focused spending. This is counterproductive. Safety is not an add-on feature or only the purview of other smaller programs. A real commitment to safety over speed means using every available dollar to fund safety projects like traffic calming, slower road design, and pedestrian infrastructure. It does not mean just tacking pedestrian facilities onto otherwise dangerous high-speed roads. The flexibility given to states means the responsibility for safety improvements and the accountability for the safety performance of their transportation system falls to them.

Cities and towns can lead the way on prioritizing safety, and they should pressure their states to follow suit.

First, One notable change in the 2021 infrastructure law: Cities are now free to depart from the MUTCD's speed-focused design guidelines and use safer street design guidelines from the National Association of City Transportation Officials (NACTO) when using federal money, even when states prohibit it through their own design regulations. The American Association of State Highway and Transportation Officials (AASHTO) also provides newer guidance on street designs for bicyclists and pedestrians, which can be used by cities or states.

Second, cities should adopt and implement their own Complete Streets policies and NACTO design guidance to prioritize the safety of all road users and set safe speed limits on their roadways. Safety investments should be targeted in the most deadly places—for instance, low-income neighborhoods and communities of color—where people are more likely to be struck and killed.

Finally, local and regional agencies must consider the impacts of land use on pedestrian safety, namely the requirements that homes be placed far from jobs, groceries, retail, banks and other essentials. Land use and zoning rules should prioritize development patterns that make it possible for more people to live closer to essential goods and services.



How to redesign your city's most dangerous streets to save the most lives

By Alex Engel and Kate Filjin-Yeh, National Association of City Transportation Officials

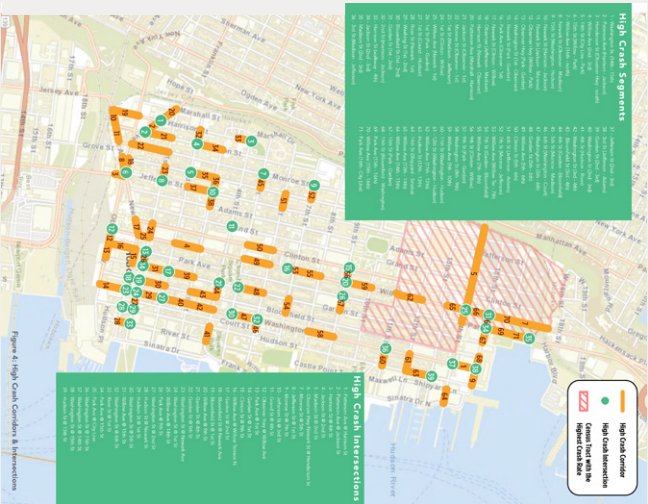
Far too many people walking, biking, and waiting for the bus die on North America's streets. They don't have to. Proven tools—from safer speed limit setting to safer street designs—have proven to save lives, and can quickly stem America's traffic safety crisis. Here's how.

(1) Analyze where the worst streets are and who needs to be in the room for change.

While nearly every street in the U.S. could be designed to be safer, by far the most dangerous streets are the big, fast, wide streets designed for cars to run at expressway speeds through busy cities and towns.

Transportation engineers call these streets “arterials,” but these car-focused streets are also where people live, work, go to school and shop.

In urban areas, arterials make up 15% of all roads but are where a whopping 67% of pedestrian deaths occur.



High Crash Network Map, from Hoboken, NJ's Vision Zero Action Plan. The city of 60,000 has not had a traffic death in more than four years.

These streets are disproportionately in lower-income communities of color, and are also disproportionately owned by states. In fact, over half of traffic fatalities in urban areas occur on state-owned roads, meaning that cities and states must work together (sometimes with an assist by advocates) to stem this deadly crisis.

By starting with the simple step of analyzing where the most dangerous streets in a city are (and overlaying it with analysis that fatality numbers by themselves may miss, like access to destinations and racial equity metrics), practitioners and policymakers gain two valuable tools. First, a ready-made prioritization list of where to save the most lives and improve equitable outcomes and, second, data-based evidence that can be presented to decision-makers to outline the case for redirecting resources where they are most needed.

(2) Reset speed limits to be compatible with human life.

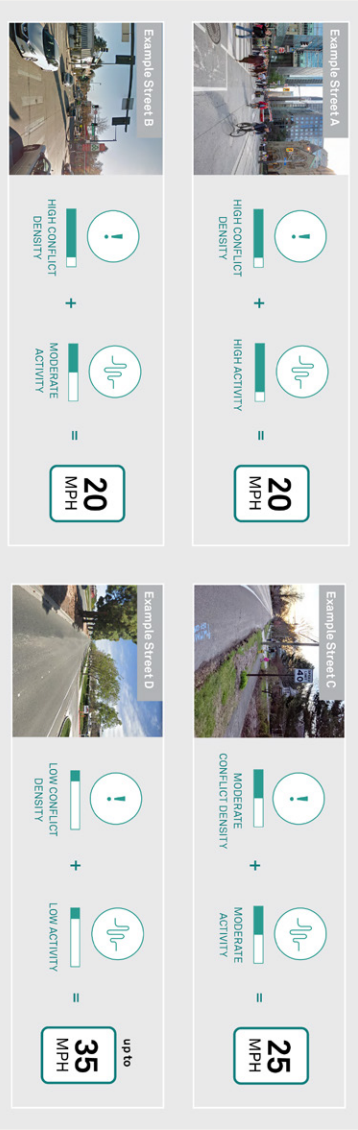
Speed is the primary factor determining whether someone will live or die in a traffic crash. Yet, most speed limits in the United States are set using an oversimplified and outdated method: tracking 100 drivers going as fast as they want (without traffic) and setting the speed limit at the 15th-fastest driver.

(3) Use proven street designs that save lives and make places more vibrant.

As cities across the world have found, there is a robust, proven toolbox of design approaches that they can use to make streets safer. These include: narrowing traffic lanes and turn radii, adding curb extensions, safety islands, and high-visibility crosswalks, ensuring sidewalks and bike networks are robust, connected, and accessible. In most places, these safety enhancements produce almost immediate results—cities see significant drops in fatalities and injuries in the places where they have redesigned the street.

Another street design strategy that improves safety includes prioritizing transit—the safest travel mode—with dedicated space for buses, safe places to walk to the bus stop, and comfortable places to wait for the bus.

Design guides like the *NACTO Urban Street Design Guide* and the *Ohio Department of Transportation's Multimodal Design Guide* offer safety-focused alternatives to the outdated design guides that still use highway engineering principles for streets shared with all users.



Examples of speed limits set using conflict density and activity analyses, from NACTO City Limits. An increasing number of cities nationwide are tossing the 85th percentile and instead using modern approaches to speed limit setting.

This deeply flawed approach rewards the fastest drivers with increasingly-high speed limits incompatible with safety for everyone else (including other drivers). And because we build roads to support speeds above the posted speed limit, there will always be a substantial number of drivers traveling above the already-too-high speed limit, escalating speeds further.

Modern approaches, like NACTO's peer-reviewed City Limits, offer a contextual, holistic approach to speed limit setting using multiple methods. City Limits provides a framework for holistically setting safe speed limits in urban areas, in contrast to common


yet outdated approaches that result in unsafe streets. Practitioners can reset speed limits using either recommended default speed limits on many streets, or set corridor speed limits on dangerous high-priority streets through a safe speed study.

Safer speed limits, even in the absence of other interventions, can improve safety. However, safer speed limits open up an even more powerful tool: street design. In many places, options for how a street can be configured are limited by the posted speed limit of that street. Setting a safer speed limit is the first step to a safer street design.

Manhattan
First and Second Avenues



BEFORE

Traffic Signals Synchronize traffic signals to slower, safer speeds to discourage speeding	
Bus Lane Dedicate lane for buses	
Crosswalks Add crosswalks where pedestrians want to cross	
Lane Designation Clarify who belongs where: Use appropriate lane widths: 10 feet wide in urban areas, with 11-foot lanes (one per direction) on bus and truck routes	
Pedestrian Safety Islands Shorten the crossing distance	
Parking Protected / Buffered Bicyclist Lane Provide greater separation between users reducing conflict	

AFTER

Where the DOT has made changes, fatalities are down 34%.

(4) Document results, iterate, and share them out.

The country’s streets will not be redesigned all at once. While the most dangerous streets should be prioritized, routine maintenance—repairing or repaving a street—provides an opportunity to evaluate and improve the design of the street under repair, stretching limited construction budgets.

Documenting the conditions on a street, including before-and-after photos, traffic speeds, the number of people walking and biking on a street, transit ridership, crashes, severe injuries, and fatalities (especially when compared to citywide or statewide trends), can build the case to engineers, residents, and officials alike for design interventions that make streets calmer, safer, and more pleasant places to be.

These evaluations can also be used to iterate and improve on a street’s designs. Streets are always evolving to some degree. Successful street redesigns often attract more people walking, biking, and taking transit. Revisiting street redesigns helps accommodate these new users, and make previously-inhospitable environments even safer and more vibrant.

- **NACTO City Limits Guide:** <https://nacto.org/safespeeds/>
- **NACTO Urban Street Design Guide** <https://nacto.org/publication/urban-street-design-guide/>
- **Ohio Department of Transportation Multimodal Design Guide:** www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/multimodal

At left, an example of a street redesign; photos courtesy of NYC DOT.

III. The pandemic changed how we measure walking and danger

The COVID-19 pandemic fundamentally changed traditional commute and travel patterns, as individuals and organizations transitioned to remote or hybrid work and schedules changed overnight. When it comes to how people get around, as well as walking rates, many of these shifts are here to stay and future years will likely look more like 2020 than they do like 2019. The impact of these shifts on the data we have relied upon in the past, coupled with significantly higher fatality rates during the pandemic, made it difficult to assess pedestrian danger in the same way as past reports, compelling us to reconsider how we measure danger and rank states and metros to address the unique impact of the pandemic.

After more than a decade of calculating pedestrian danger in the same way, **this edition of Dangerous by Design ranks states and metro areas based on deaths per 100k residents** (instead of factoring in how much people are walking) **over a five-year timeframe** (instead of 10 years.) **These two significant changes mean that the rankings in this report are not directly comparable to previous editions.** We look forward to being able to once again compare editions of this report to another in future years, but these methodological

updates will allow us to better examine the dangers and deaths that occur on our streets in light of the permanent transformations brought by COVID-19.

Previously, we compared the relative danger of states and metro areas using the **Pedestrian Danger Index (PDI)**, an equation that takes into account deaths per population and walking rates derived from U.S Census data on the share of people walking to work. This index allowed us to compare places that have a higher number of fatalities because of the large population and huge number of walking trips—like **New York City**—with metro areas that have fewer fatalities or people but a far greater exposure to danger per walking trip—like **Jackson, MS**. But the dramatic changes in commuting brought by the pandemic necessitated a shift away from this data.

Up until the pandemic shut things down in March 2020, the share of people walking to work was a good, if limited, proxy for the amount of overall walking in a region or state. With a huge share of work trips evaporating and commuting patterns indefinitely changed, this was no longer the case. For example, what about people who did not travel to work in person in 2020 due to

childcare needs, unemployment, or new remote work schedules? Though walking trips for commuting went way down during the pandemic, other data sources showed that walking overall actually increased during the pandemic. So this year's report includes a brand new section **(V)** that taps some new walking data from other sources to gain a better understanding of how and where people walk and how that affected fatalities, providing a deeper look into what happened on our streets in 2020.

The second notable change in the methodology is a shift to rank states and metro areas based on five years of data rather than 10.

Using 10-year time periods has allowed each report to be compared to the previous edition, which also allows the public to easily see how states or metro areas are getting more or less deadly. Unfortunately, as noted above, the pandemic's impact on walking data was going to make this continuity impossible, which gave us the chance to depart from the ten-year horizon and begin assembling state and metro rankings in this 2022 edition using a five-year time period, from 2016 to 2020 in this edition.

The changes brought by COVID aren't just a blip—commuting and travel patterns have been permanently transformed. Shifting to five years allows us to both more heavily weigh what happened in the pandemic year of 2020, while also drawing a sharper focus on current and more recent conditions. Additionally, USDOT, states, and metro areas also typically operate on five-year cycles for spending, planning, and performance measurement, making it a logical timeframe.

Despite variation in deaths from year to year, this report also draws some limited comparisons between a single year (2020) and the previous four years to see which areas had the most significant changes during 2020. Nationally, fatalities rose 4.5 percent between 2019 and 2020, and preliminary estimates show an even higher increase in 2021.

When it comes to design, we must also consider the deadly impacts of ever-larger vehicles

By Mike McGinn, Executive Director of America Walks, former Seattle Mayor

While this report focuses on how our streets are “dangerous by design,” the increasing size and weight of personal vehicles are also having an impact on the steadily increasing number of people struck and killed while walking. In addition to designing safer streets, improving vehicle design along four main criteria is also critical for reducing pedestrian fatalities:

Weight: Heavier vehicles like trucks and SUVs, which make up a growing share of both the current fleet and new vehicle sales each year, are more dangerous to both pedestrians and people inside of other vehicles.^a Their increased weight, combined with higher speeds, increases the likelihood of death. A 2015 study by the Department of Transportation found that “pedestrians are 2-3 times more likely to suffer a fatality when struck by an SUV or pickup truck than when struck by a passenger car.”^b

Size: Vehicle size can also increase the likelihood of a pedestrian fatality in what should be obvious ways. Pedestrians struck in the lower body by a sedan are more likely to roll over the vehicle and survive the crash. Those struck directly in the pelvis, chest, or head by today’s much taller vehicles are more likely to die upon impact or be pulled under the vehicle and crushed by the wheels.^c



Photo by Steve Davis / Smart Growth America

Visibility: Taller vehicles decrease the visibility of people walking, increasing the likelihood of a crash. Today’s typical passenger pickup trucks and SUVs have significant front blind spots caused by large hoods and bumpers that can blind the driver to pedestrians in their path, especially those who are shorter, like children.^d Large a-pillars (the frame of the car between the windshield and the driver and passenger windows) are wider and larger on trucks and SUVs, contributing to lower visibility while making turns. In fact, when pedestrians are killed by a turning vehicle, the driver is far more likely to be behind the wheel of an SUV or pickup truck.^e So if someone walks out into a crosswalk in front of or near a pickup truck or SUV, even if the pedestrian has the right of way, the driver is less likely to see the pedestrian, increasing the odds of a deadly crash.

^a <https://academic.oup.com/estud/article-abstract/81/2/535/1517632>

^b www.govinfo.gov/content/pkg/FR-2015-12-16/pdf/2015-31323.pdf

^c www.consumerreports.org/car-safety/the-hidden-dangers-of-big-trucks/

^d www.motorbiscuit.com/why-pickup-trucks-blind-spots-much-bigger-suv/

^e www.iihs.org/news/detail/svcs-other-large-vehicles-often-hit-pedestrians-while-turning

Like the roadway design practices discussed in this report, these vehicle designs set drivers up to fail—to not see people walking until it is too late—and both people walking and drivers pay the price.

Psychology and marketing: Low visibility and high weight create an intimidating and powerful-looking vehicle—a fact not lost on the drivers of these vehicles and leveraged by automobile manufacturers and their marketing efforts. Advertising campaigns for Ford, Hummer, and Jeep rely on militarized language that contributes to a paramilitary aesthetic and aggressive driving mentality.^a

The evolution of each of these four design elements is producing more danger, and is likely a major culprit in our growing rate of traffic fatalities. Truck sales are increasing as a percentage of the US vehicle market share.^b Front blind zones continue to grow.^c Electric vehicles, which are taking up an ever-larger share of the passenger car market, are much heavier than cars with internal combustion



engines.^d **Is anyone in charge of protecting the safety of the traveling public paying attention?**

The pending update to the New Car Assessment Program (NCAP), a federal program that rates new cars on safety metrics, had the opportunity to penalize vehicles that perform poorly on the above metrics.^e But USDOT decided to focus on pedestrian-sensing technology in new vehicles. While technology can help avoid

some crashes—and the fact that NCAP finally mentions pedestrians at all is unfortunately an improvement—technology alone will do nothing to make crashes that do occur with these vehicles any less deadly for pedestrians.

Passenger vehicles that are proven to increase the likelihood of a pedestrian fatality should not receive five-star safety ratings. NCAP must change this or these ratings will remain useless to slow or stem the tide of pedestrian fatalities.^f And safety ratings alone are not sufficient, since they simply provide information. We must update vehicle performance standards to require safer vehicle design for pedestrians. America Walks, among others, has been beating the drum on this, as should everyone interested in pedestrian safety.^g

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a <https://popula.com/2019/02/24/about-face/>
b www.statista.com/statistics/199980/us-truck-sales-since-1951
c www.bloomber.com/news/articles/2021-03-11/the-dangerous-rise-of-the-supersized-pickup-truck

d www.washingtonpost.com/business/energy/electric-vehicles-are-getting-bigger-and-heavier-why/2022/02/07/a8d55e68-87ea-11ec-838f-0cfd69ce3c_story.html
e www.regulations.gov/document/NHTSA-2021-0002-0001

f www.vice.com/en/article/4ade9p/the-us-invented-life-saving-car-safety-ratings-now-theyre-useless
g <https://americawalks.org/america-comments-vehicle-safety/>, <https://americawalks.org/new-federal-vehicle-safety/>, <https://americawalks.org/advocate-for-pedestrian-safety/>

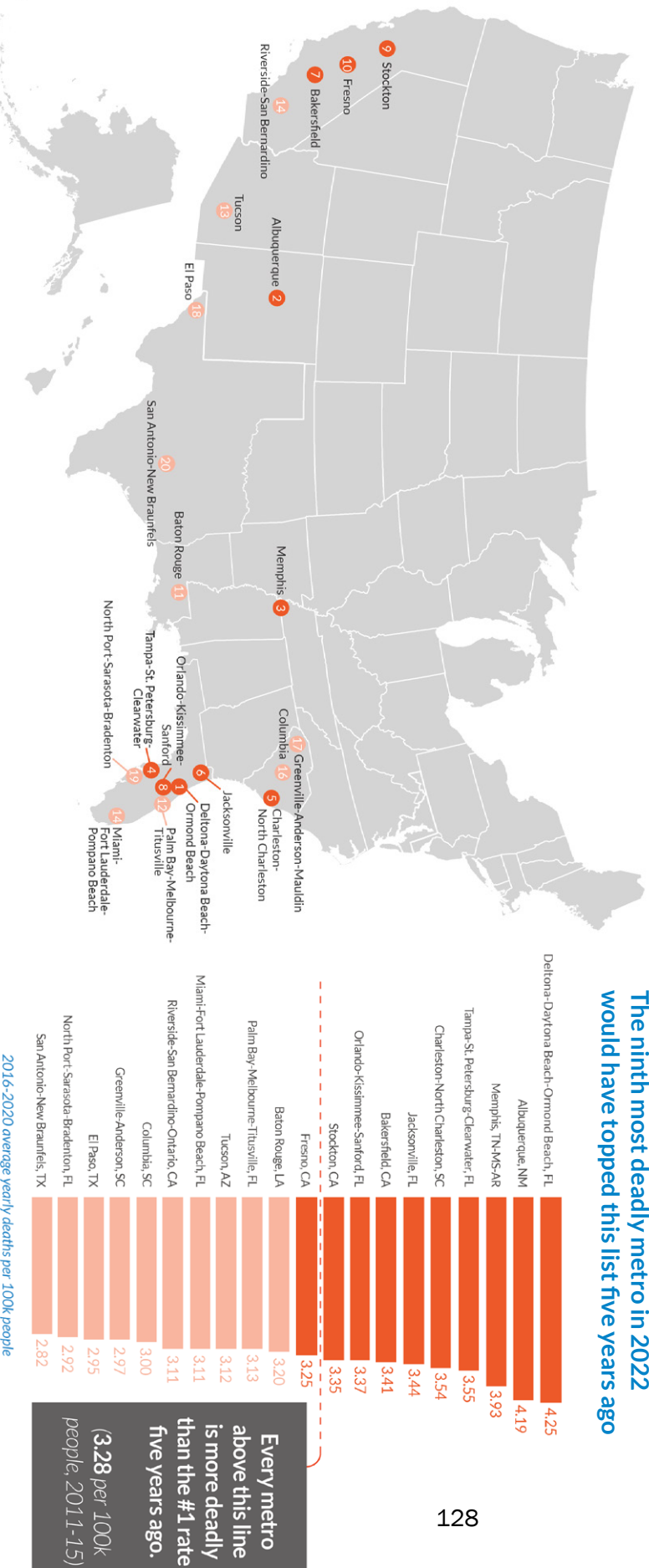
IV. The most dangerous places to walk in the United States

The top 20 most dangerous metro areas

This map highlights the 20 most dangerous metropolitan areas in the United States for people walking between 2016 and 2020, ranked by average yearly deaths per 100,000 people.

As in previous versions of this report, metro areas within the southern half of the US account for a sizable portion of the top twenty most dangerous metro areas in the nation. The top 20 list includes 15 of that region's major metro areas, including seven from Florida.

The ninth most deadly metro in 2022 would have topped this list five years ago



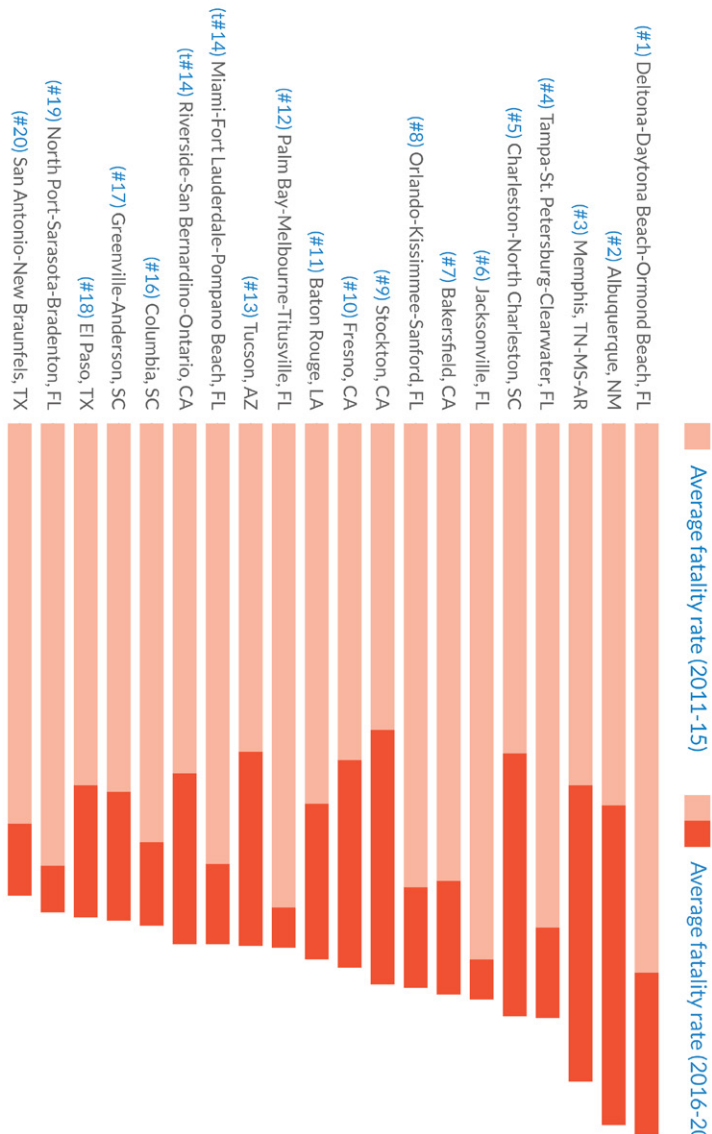
Rankings shift around, but all of the most deadly metros are getting worse

The rankings within each edition of this report shift and metro areas may slide up and down, but **every single one of the 20 most deadly metro areas has grown more deadly over the last decade.** As the graphic on the previous page shows, a fatality rate that would have topped these rankings five years ago is only good enough for ninth-most deadly this time around.

No top 20 metro area that improved their position in this edition achieved that feat because they reduced their fatality rate. All 20 have grown more deadly. (See the graphic at right.)

The metros that have slid down (“improved”) in the rankings have done so not because they have gotten safer, but because other metro areas have grown more deadly at astonishing rates, such as **Albuquerque, Memphis, Charleston, Stockton, and Fresno.** (See the graphic on the following page.)

No metros in the top 20 are improving
All have gotten significantly more deadly



* Dangerous by Design 2022 rank in parentheses

Have any metro areas been trending safer over the last decade?

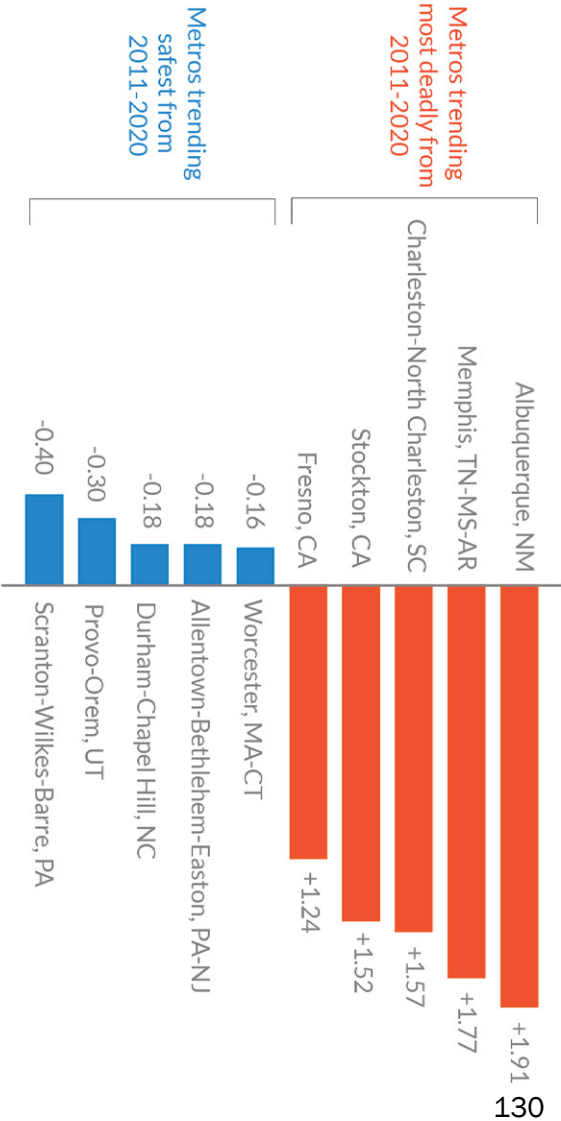
As deaths have been on a steady and alarming increase nationally, have any metro areas been trending in the opposite direction, getting safer over the last decade? Comparing an average fatality rate for the past five years (2016-20) with the previous five years (2011-15) we found that only a handful of metro areas (19 of 100) were bucking the national trend, albeit with only marginal gains, at best. Looking closer, the other 81 metro areas were growing far more deadly than these 19 metro areas were improving (see graphic at right). The average increase in the fatality rate in these 81 metro areas was 4.5 times greater than the average improvement within the 19 metro areas that were trending marginally safer over the decade.

There are plenty of examples of successful safety improvements that have reduced fatalities on specific corridors within many of these largest 100 metro areas. But these metro areas have built 70 years of dangerous roads to retrofit, and these improvements, while welcome and needed, are the exception and not the rule.

For this reason it has failed to lead to meaningful reductions in deaths across metro areas, states, and the nation. And at the same time states and cities are improving safety on specific corridors or intersections, many are building new roads with all of the same old issues. **We need a transformation in the entire system**—the task is monumental, and the effort needs to be sustained for years at the scale of this enormous problem.

We will fail to reverse this tragic trend until we fundamentally change the status quo of how we approach planning, designing, and operating our roads across every transportation project.

Long term trends in fatalities:
Which places have been trending safer or more deadly over the last decade?



Comparing average fatality rates for the past five years (2016-20) with the five years previous (2011-15)

What happened during the pandemic in these metro areas?

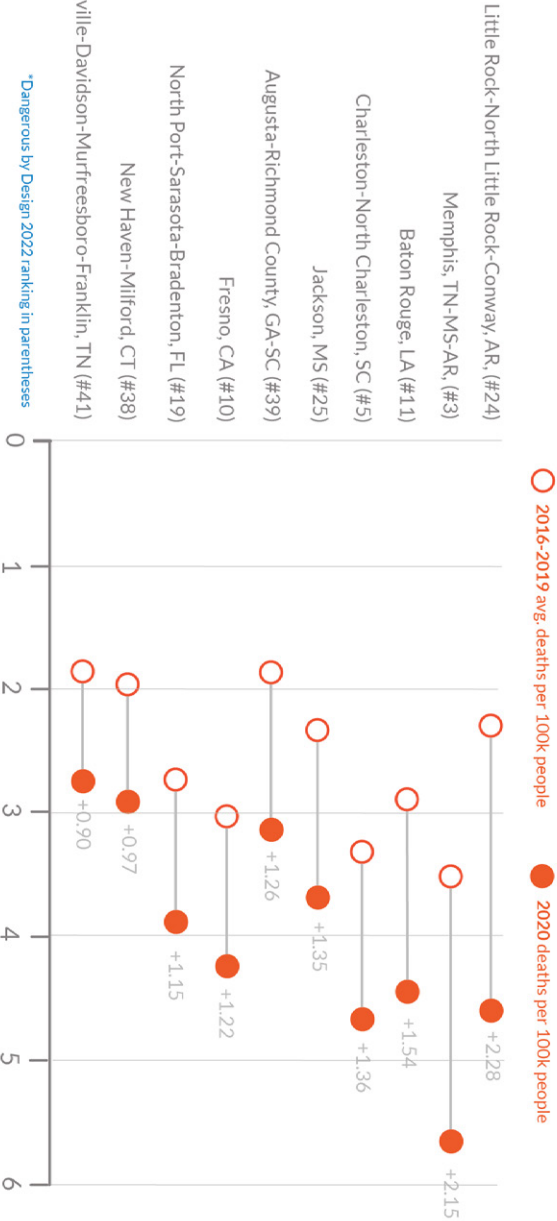
Even as the amount of driving dropped overall, 67 of the largest 100 metro areas saw increases in the deaths of people struck and killed while walking during the pandemic, compared to the previous four years. While some variation is expected from year to year—which is why we don't typically compare a single year of data, outside of the unprecedented circumstances brought by

the pandemic—these 2020 increases were significant in a number of metro areas. The ten metro areas with the highest increases (comparing 2020 with an average rate for 2016-2019) are depicted in the graphic below. These ten metro areas with the biggest increases are all also among the top 40 most dangerous in the country.

Unfortunately, only 33 metro areas saw their fatality rates decrease during the pandemic, and most of those changes were marginal, especially when compared to the increases in other metro areas.

Section VI later in this report examines the metro data, finding that metro areas where a large share of people were walking to work before the pandemic (because the infrastructure and land use support it) experienced lower increases in death rates.

Largest increase in pre-pandemic vs 2020 death rates



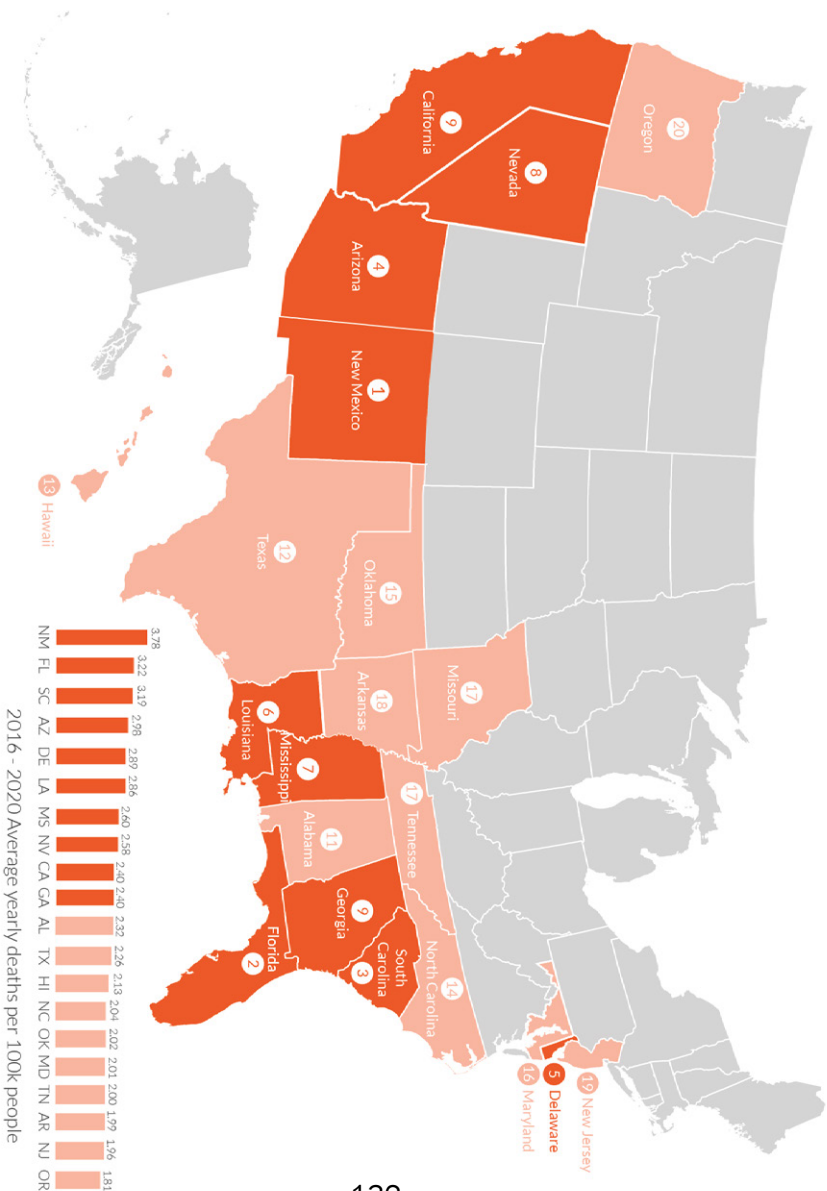
*Dangerous by Design 2022 ranking in parentheses

The top 20 most deadly states for pedestrians (2016-2020)

The graphic at right depicts the top twenty states with the highest number of pedestrian deaths.

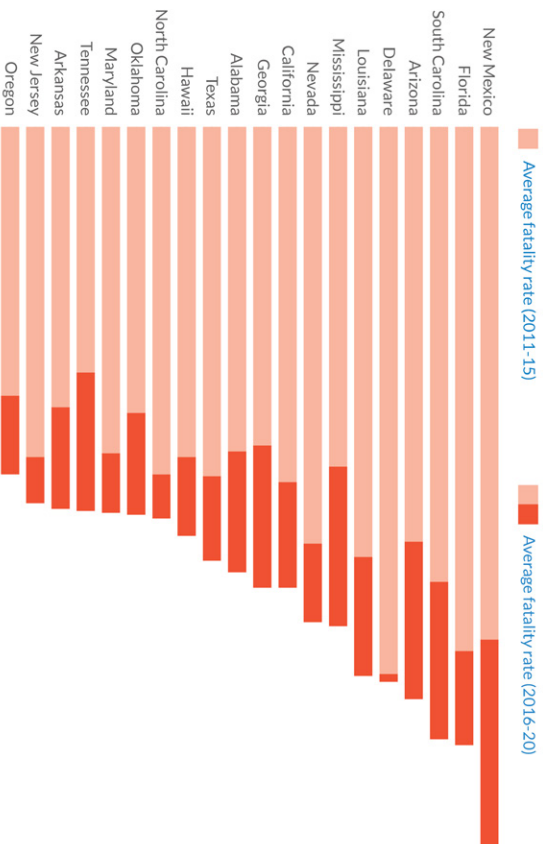
States in the southern half of the US are again overrepresented in the top ten most dangerous states, which is not surprising. The bulk of the growth and development in these regions has taken place in an era (post-1960) where low-density sprawling land uses and high-speed, multi-lane arterial highways have been the dominant form, with historic amounts of state and federal transportation funding poured into street designs that are deadly for everyone, especially people walking.

THE TOP 20
Most dangerous states for pedestrians (2016-2020)



No states in the top 20 are improving

All have gotten significantly more deadly

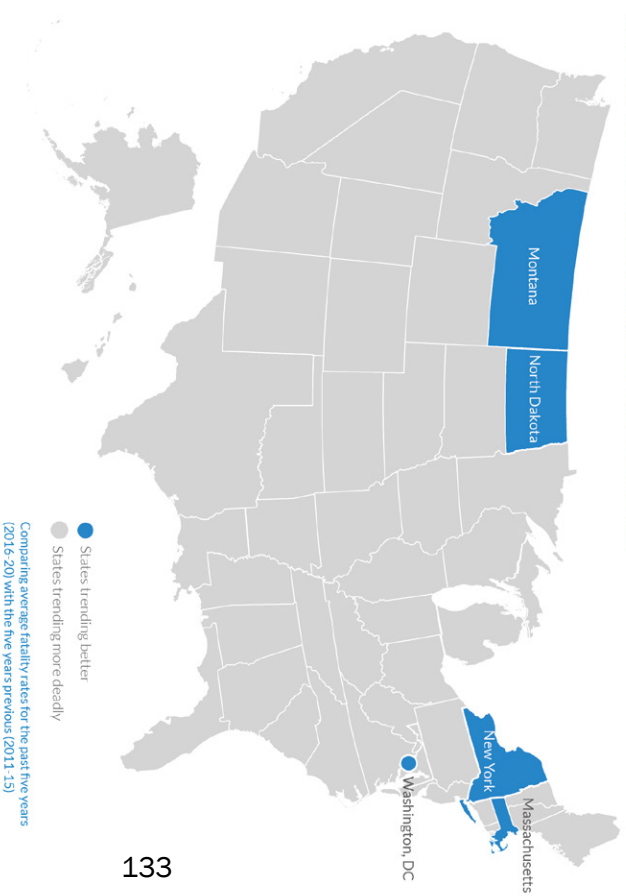


Have any states been trending safer over the last decade?

This year, the rankings for the deadliest states for pedestrians changed slightly. Previous #1 **Florida**—where it should be noted that overall deaths still increased significantly in 2020—was surpassed by the increase in **New Mexico**, which is now the most dangerous state for pedestrians. **No state that improved their position in this top 20 list achieved that feat because they reduced their fatality rate.** All 20 have grown more deadly with a higher fatality rate compared to their average rate for 2011-2015.

Long term trends in fatalities

Have any states been improving over the last decade?



Have any states managed to reduce their fatality rate and buck the national trend over the last decade? Have any states been trending safer? The answer is *almost* “no”—46 states have been in lock step with the national trend, growing yet more deadly over the last decade.

Comparing average fatality rates for the past five years (2016-20) with the five years previous (2011-15) we found that only four states, **New York, North Dakota, Massachusetts**, and **Montana** (plus the **District of Columbia**), managed to lower their fatality rates.

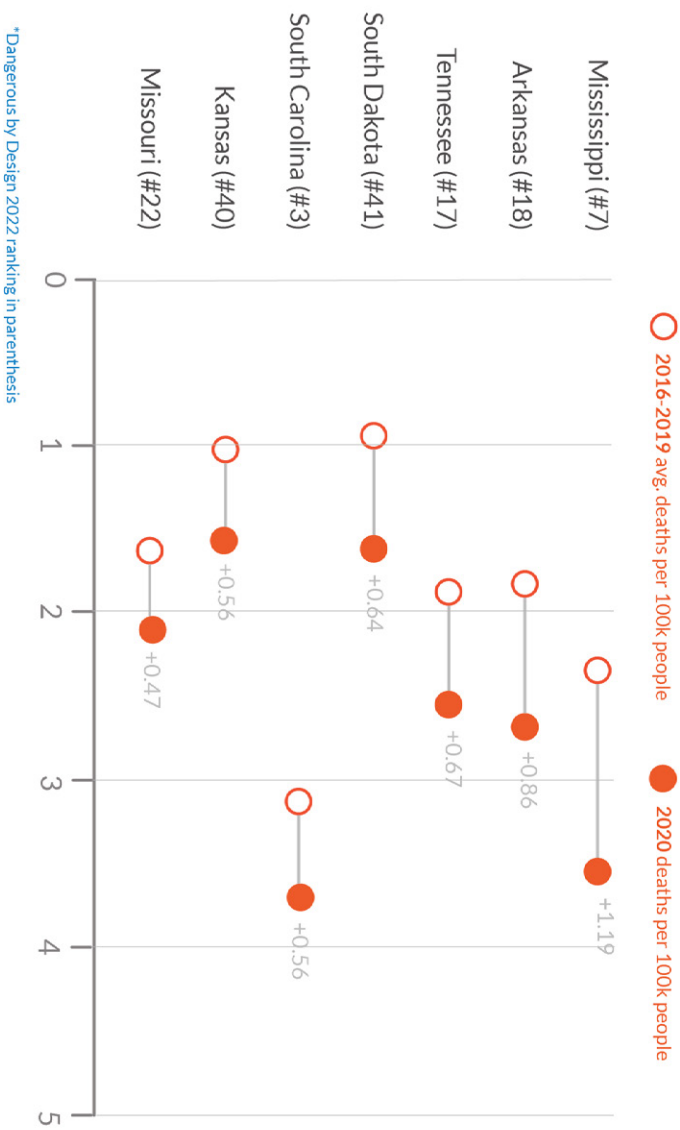
What happened during the pandemic at the state level?

Unfortunately, even though driving overall dropped precipitously, only 18 states saw their fatality rates decrease during the pandemic (compared to the previous four years) and, similar to our findings in metro areas, those decreases were mostly marginal.

Mississippi, Arkansas, Tennessee, and South

Dakota saw the biggest increase in the rates of death during the pandemic compared to the previous four years. These states are also among the top twenty most dangerous states overall.

Largest increase in pre-pandemic vs 2020 death rates

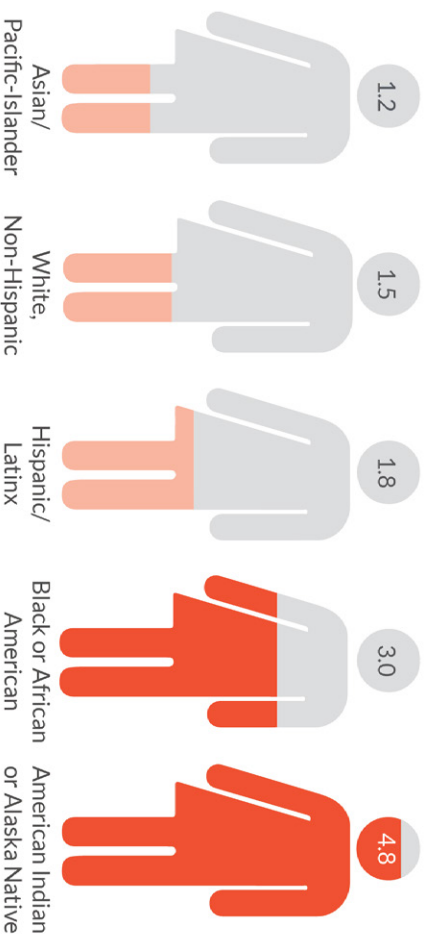


V. Most vulnerable populations

The COVID-19 pandemic perpetuated existing disparities in terms of who is most likely to be struck and killed while walking. Although people of all ages, races, income levels, and abilities are affected by dangerous street design, certain populations bear the brunt of the burden. People of color, low-income residents, and older adults are much more likely to die while walking, and the many people who exist at the intersections of these identities are even more vulnerable.

Decades of structural racism have included prioritizing travel to and from wealthier, whiter communities, forced displacement, disinvestment or neglect, a focus on building new rather than repair, and spending a greater share of transportation dollars elsewhere. The results have been a greater share of poorly designed streets that lack even the most basic pedestrian safety features like crosswalks, signals, and refuges, and are frequently divided by wide, high-speed roads that create life-threatening conflicts for people walking.

Pedestrian deaths per 100,000 by race & ethnicity (2016-2020)



Non-drivers also face significant disparities, particularly those who rely on assisted mobility devices such as wheelchairs, walkers, prosthetics, and scooters. Existing streets lack consistent sidewalks, curb cuts, and safe intersections, making it difficult for nondrivers to navigate their communities and reach key destinations.¹⁴

Race and ethnicity

People of color, particularly Native and Black Americans, are more likely to die while walking than any other race or ethnic group, as illustrated in the graphic on the previous page. Despite making up a smaller proportion of the population, people of color are overrepresented in the percentage of pedestrian deaths.

It's worth noting that race and ethnicity are some of the most inconsistently reported components of federal fatality data. **11 percent of all pedestrian fatalities we examined failed to report race or ethnicity.** A handful of states are particularly egregious offenders on this count, including Connecticut (43% of pedestrian deaths missing race data), New York (39%), Pennsylvania (39%), California (29%), Maryland (28%) and Hawaii (24%).

With this point in mind, the disparities we see nationally in deaths by population could be even worse in reality. With 1,381 of 4,729 pedestrian fatalities lacking race/ethnicity data, California has the largest absolute number of fatalities in this category. Consider: If Hispanic/Latinx people make up the same share of those ~1,300 deaths as they do of California's population overall (40 percent) the **national** fatality rate for Hispanic/Latinx people would significantly increase, from 1.8 to 2.0.

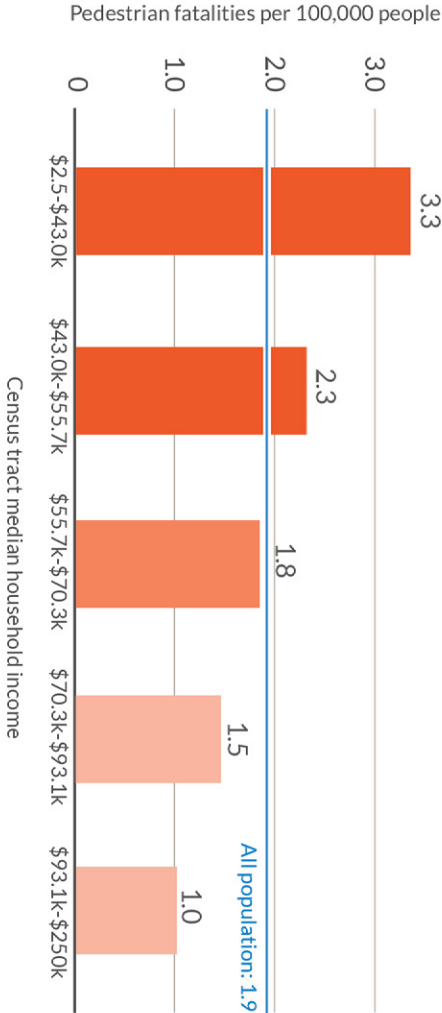
The existence of dangerous, auto-centric infrastructure in communities of color is a result of "urban renewal" projects like the construction of the interstate system, which was intentionally sited through many Black and Brown communities, displacing millions of people and causing catastrophic damage for decades to those left behind, like increased exposure to pollution, worse access to jobs and services, and devastated local economies.¹⁵



Black and Brown neighborhoods also tend to have more high-speed roads, poor visibility, and heavy traffic volume, and a lack of facilities for people walking.¹⁶ In many cities, communities of color house a disproportionately high share of the most deadly roads, devoid of pedestrian infrastructure. For example, in Philadelphia, a full 46 percent of the most dangerous roads are in poor areas mostly populated by people of color.¹⁷ And Black pedestrians are more likely to be subject to inequitable traffic enforcement and are more likely to be stopped, ticketed, and arrested for jaywalking and other walking violations.¹⁸

This continues to occur as transportation agencies spend enormous sums to make trips for people traveling through these communities faster and easier at the expense of those places. As just one example, this can be seen in how agencies positively assess the impact of a potential new road on congestion, while failing entirely to consider the impact on people in that community who will no longer be able to safely or easily travel from one side of the road to the other.

Pedestrian fatalities per 100,000 people by census tract income



Low-income communities

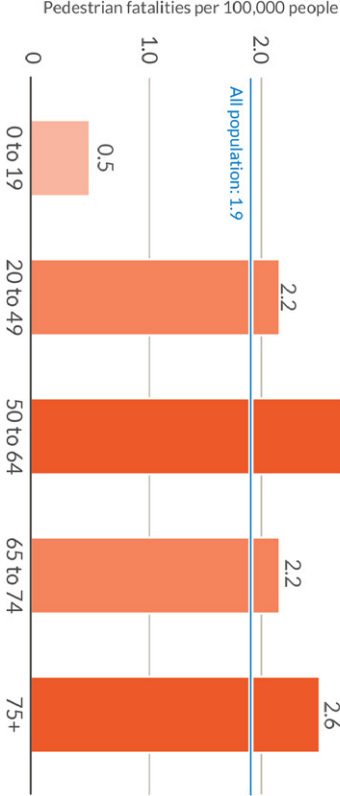
While the federal database of fatalities does not include the household income of people struck and killed while walking, we do know where individuals were walking at the time of death. And the data is clear: the lower the income of the census tract, the more likely a person is to be struck and killed while walking there. Despite accounting for only 17 percent of the population, lower-income neighborhoods (those with a median household income of \$2,500-\$43,000) are where more than 30 percent of all pedestrian deaths occur.

Poor walking infrastructure and a lack of safety features put people walking in low-income neighborhoods at higher risk, and many lower-income households do not have access to a vehicle and must rely on walking or public transportation to get around.

Older adults

People between the ages of 50 and 65, and people over 75, are also more likely to be killed on our streets. Considering that the U.S. Census Bureau projects this segment of the population to continue growing, with 1 in every 5 Americans aged 65 or older by 2030, these deaths are likely to increase absent other changes.¹⁹

Pedestrian fatalities per 100,000 people by age (2016-2020)



A survey from AARP also found the majority of older adults want to age in place in their homes and communities.²⁰ To do that, they need safe and accessible streets that allow them to move around independently and access essential services in order to age in place comfortably. If they can't safely walk, they may experience severe social isolation, which can negatively impact their physical and mental health.



Traffic enforcement cannot do the job of better roadway design

By Priya Sarathy Jones, Fines and Fees Justice Center

After reading a report like this, some reporters, residents, and local leaders may be tempted to reach for increased traffic enforcement and financial penalties as an obvious solution. But relying on enforcement and financial



penalties to solve issues that stem from street design cannot solve the epidemic of traffic fatalities. And even a simple traffic ticket can trap working families in a vicious cycle of poverty and punishment if they can't afford to pay the stiff fines and fees that jurisdictions often impose.

Design, on the other hand, is an upstream solution. When streets are designed with safety in mind, people intuitively drive more slowly, making them able to notice and process important signals from their environment, preventing dangerous behavior before it occurs, and focusing efforts on safer systems rather than individual behavior.

When streets are designed primarily to move as many cars as possible as fast as possible, and people are not provided the infrastructure they need to walk and bike safely, enforcement often punishes travelers for *behaving logically*. It is no mistake that one of the most common forms of speed limit enforcement is called a “speed trap.” When a road looks and feels like a highway and is designed for 45mph or more but has a speed limit of 35 mph or less, many drivers are not aware they are making a mistake—until it's too late. The result of that is frequently issued

citations, but not a change to overall driving behaviors.

And for state and municipal governments, using fines and fees as the primary mode of enforcement often leads to over-reliance on ticket revenue to fund basic government services, which can distort law enforcement priorities and erode trust between communities and police.^a

Leaning so heavily on enforcement to manage *individual* behavior—while neglecting the more powerful *systemic* tool of designing streets that produce safer, slower driving overall—can increase the likelihood of abuse and exacerbate the existing disparities and inequities that people living in Black and Brown and low-income neighborhoods already face, all without reducing crashes.

According to the Bureau of Justice Statistics, traffic stops and car crashes account for at least 66 percent of contact between police and the public in the last decade, making dangerous streets the most frequent place for incidents of police brutality, particularly for low-income and minority residents.^b In addition to often being overpoliced and being more likely to face police violence, Dangerous by Design shows how communities of color also disproportionately bear more of the burden of poor street design. This combination of factors creates a uniquely dangerous situation in these communities which requires systemic changes.

a <https://finesandfeesjusticecenter.org/articles/investigation-ferguson-police-department/>

b Thompson, D. (2020, June 11). Unbundle the Police. The Atlantic. www.theatlantic.com/ideas/archive/2020/06/unbundle-police/612913/



Tickets may even be given to people walking in places where there aren't any sidewalks, as with this road. Photo courtesy of Scott Crawford.

And this problem is not unique to driving, as enforcement has also become a major component of so-called “pedestrian safety” initiatives, which also tend to place a greater emphasis on communities of color.^a Between 2012 and 2017, Black pedestrians in Jacksonville, Florida constituted 55 percent of all ticketed pedestrians despite making up only 29 percent of the population.^b

^a The Eno Center for Transportation. (2020, June 19). Op-Ed: Transportation and the Police Part 2: The Enforcement Problem in Pedestrian and Bicycle Safety. www.enoctrans.org/article/transportation-and-the-police-part-2-the-enforcement-problem-in-pedestrian-and-bicycle-safety/

^b Equal Justice Initiative. (2017, November 30). Analysis Finds Tickets Disproportionately Issued to Black Pedestrians. <https://eji.org/news/analysis-finds-tickets-disproportionately-issued-to-black-pedestrians>

Though several factors are likely at play, infrastructure is a key aspect. Pedestrian infrastructure tends to be least available in Black and Brown communities, while car ownership is less common. And in low-income communities, the financial penalties of traffic enforcement create economic hardships and financial burdens that can include life-altering consequences: late fees, license suspension, loss of employment, and a vicious debt cycle.

Automated enforcement (like speed cameras) is another way to enforce behavior, but without transparency and clear guardrails about how it's deployed, it can be subject to the same biases as human enforcement, further perpetuating inequities, and deepening government reliance on fines and fees for revenue. After all, decisions about where to place enforcement equipment, how much a fine is for each ticket, and what fees to add on, are still being made by state or local officials.

For example, after a recent initiative to install traffic cameras in Chicago, Black and Brown zip codes were ticketed at roughly twice the rate of white neighborhoods, leading

to significant financial hardship and even bankruptcy.^c And when Chicago changed its speed camera program in early 2021 to issue citations at 6 mph over the speed limit, the city generated \$89 million in fines in one year—raising the daily tickets issued from 1,100 to 9,000. Meanwhile, the number of pedestrian fatalities in Chicago increased in 2021.

As a biker and pedestrian myself who lives with young children in a major city, I think about street safety every time I step outside my home. I understand the temptation to deal with growing traffic violence with expanded enforcement efforts. But enforcement alone will fail to solve the fundamental problem: streets *designed* for the very behavior that enforcement is trying to eliminate. The best strategy for more effective and equitable enforcement is to reduce how much it's needed, by redesigning streets that make safer behavior easier, more intuitive, and ultimately more likely.

Learn more:

<https://finesandfeesjusticecenter.org>

^c www.propublica.org/article/chicago-s-race-neutral-traffic-cameras-ticket-black-and-latino-drivers-the-most

VI. What pandemic walking rates tell us about making streets safer

The U.S. Census provides data on the share of people who walk to work, but as noted in section III, this data focused on work trips experienced major disruption during 2020. In this expanded new section for this edition of Dangerous by Design, we chose to look at overall walking trip rates across metro areas using data provided by Streetlight Data. Their data help show how much more overall walking is taking place, and potentially how much additional demand there is, compared to using only the U.S. Census data limited to only commute trips. Combining the Census data on walking commutes with this new set of walking indicators from Streetlight Data allows us to better understand how changes in walking during the pandemic impacted safety.

Streetlight leverages anonymized information from cellphones and mobile devices to provide us with an index of walking trips for each metro area and state analyzed in this report. These index numbers are most valuable for comparing the amount of walking trips in different places and changes over time, rather than providing an actual count of all trips.

But they also have their limits. Streetlight Data include walking trips of all purposes, both to essential places like work or grocery stores as well as walking trips for recreation or exercise that might occur in parks, in gated communities, on trails, and even on beaches. These are wonderful community amenities, but trips away from vehicle traffic are not useful in judging the relative safety for pedestrians exposed to vehicles across metro areas and states.

Four things we learned about the pandemic's increase in walking and deaths

For this portion of the analysis we used walking data from both the U.S. Census and Streetlight to examine the impact of increased walking during the pandemic. We grouped metro areas into two categories by their death rates from 2016 to 2020 (more deadly, less deadly) and discovered **four basic trends**:

1. **Streetlight's data shows that walking increased everywhere during the pandemic, but those increases only led to more deaths in certain metro areas.**

2. **In 2020, fatality rates increased the most on average in the metro areas that were already more deadly and had lower shares of people walking to work before the pandemic.** In short, the more deadly metros also saw the biggest increases in fatality rates. Walking rates also increased the most in these metro areas, illustrating a pent-up demand for walking in the most unwelcoming and unsafe places.

3. **In 2020, fatality rates decreased (or increased the least) on average in the metro areas that were less deadly and had higher shares of people walking to work before the pandemic.** The places where more people choose to walk to work tend to be places that also have the street design and land use that make it safe to do so.

4. **More walking doesn't have to result in more deaths.** We can get more people walking to more places without seeing deaths increase, if we prioritize their safety from the ground up. This tracks with the worldwide trend—increases in walking and drops in driving only led to more deaths in the US and two other developed countries. Most got safer.

We explain more about the process and the methodology for these four findings in the following detailed section.

Separating the more deadly from the less deadly metro areas

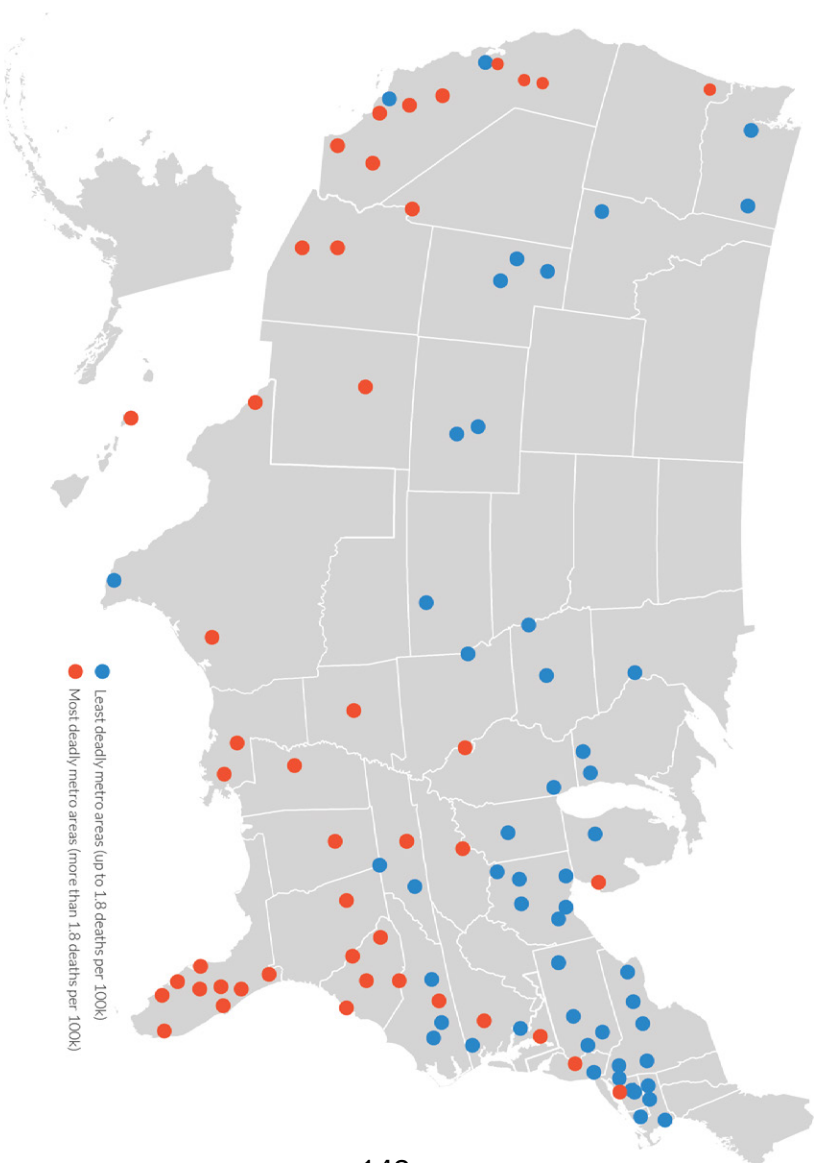
To get a better understanding of whether increases in walking during the pandemic led to increases in deaths, we divided the 100 largest metro areas into two groups, or clusters. One group consisted of more deadly cities (more than 1.8 deaths per 100k) and a second group consisted of less deadly cities (up to 1.8 deaths per 100k). These groups are roughly equal in size, with about 50 cities included in each. We then compared the changes in death rates and differences in walking between the two groups. There was a large difference in average death rates for 2016-2020 between these two groups: 2.7 annual deaths per 100,000 people on average in the more deadly Group 1, versus 1.3 in the less deadly Group 2.

Fewer people walk to work in the more deadly places

Looking at these two groups of metro areas, clear patterns emerged. A considerably larger share of people walked to work before the pandemic in the less deadly metro areas (Group 2, shown in blue): 2.6 percent of commuters on average versus 1.7 percent in the more deadly group of metro areas (red). There is also a clear cutoff between the two groups when it comes to walking commuters: almost all cities in the less deadly group had a higher share of people commuting by walking than any of the metro areas in the more deadly group.

These two groups have less pronounced but still noteworthy differences in walking overall, as shown by the walking trip index values provided by Streetlight Data for 2016-2020. Overall, metro areas in the more deadly group have higher walking trip indexes, averaging 2.9, whereas the average walking trip index for the less deadly metro areas is 2.6. However, some of the most deadly cities like **Orlando** and **Las Vegas** had exceptionally high walking trip index values (greater than 4.) These cities have a large population of

Grouping metro areas by fatality rates to measure the impact of walking rates during the pandemic



tourists walking in parks, beaches, and other tourist-oriented areas, which could account for these high walking index values, but are also generally heavily car-oriented in much of their surrounding regions, likely contributing to high death rates.

Many metro areas with the highest walking trip indices were also in states like **Florida** and **California** where private development often includes trails and other off-street amenities for walking recreationally in places with no exposure to cars or fast-moving traffic.

More walking only made certain metro areas more deadly in the pandemic

MSAs in the more deadly Group 1—those with lower walking to work rates—saw a significantly larger increase in death rates on average during the pandemic: 15 percent. By contrast, MSAs in the less deadly Group 2 with higher walk to work rates on average actually saw a 1.4 percent decrease in death rates on average.

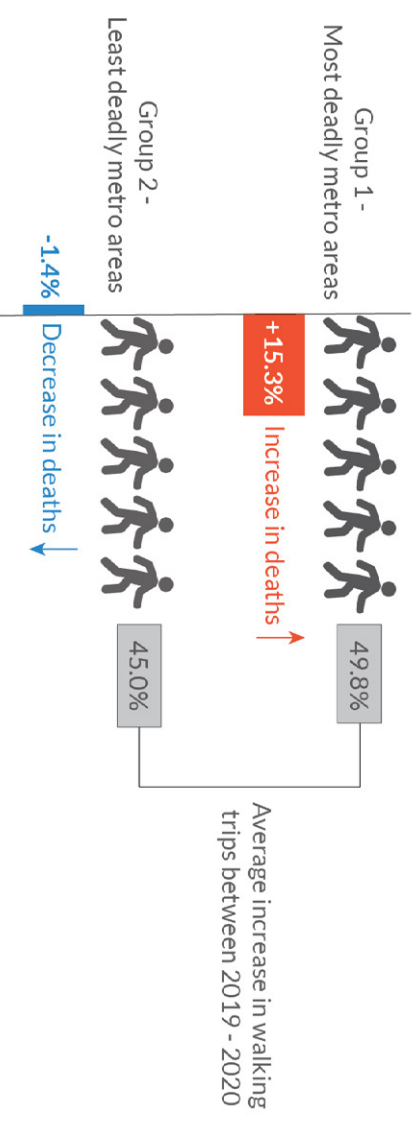
Did stark differences in the amount of walking contribute to the different death rates between these two groups of metro areas during the pandemic? For many cities, the answer seems to be no. The average changes in walking trip rates in each group of metro areas were relatively comparable, but the effect was not the same.

This phenomenon is best characterized by metro areas on the extreme end of the spectrum in the more deadly group like **Little Rock, AR, Augusta, GA, and Jackson, MS**, where a 60 percent increase in walking trips or larger corresponded with a similar increase in death rates. For especially deadly cities like Jackson, MS, which has consistently scored near the top of our Pedestrian Danger Index, this increase is particularly concerning.

These trends can tell us a lot about how to make communities safer

These patterns are not a coincidence. It makes sense that places where people often walked to work before the pandemic would not see a significant increase in deaths when people started walking more during the pandemic, because places where people walk to work frequently also tend to be places that are better designed to support safer walking trips of all kinds. Communities that were

More walking during the pandemic led to more deaths only in the group of more deadly metro areas (on average)



more comfortable and more welcoming to walk in before the pandemic had more streets designed with pedestrians in mind. Infrastructure that protects people walking or using wheelchairs (like crosswalks and sidewalks) is more common, and these additions also lead to naturally slower vehicle speeds, so crashes are less likely to be fatal.

Places where people walk to work less frequently (where people might commute more often by car, for example) also tend to lack the infrastructure pedestrians need to stay safe. These communities got more dangerous when traffic evaporated on roads already designed primarily for moving cars through at high speed. A sudden increase in walking coupled with fewer cars on the road in these places likely contributed to a perfect storm of conditions and an increase in deaths. No amount of additional walking can overcome a roadway design that is fundamentally dangerous.

The dramatic increase in walking rates across the country during the pandemic shows that there is latent, unrealized demand for more opportunities to safely walk, even in places where the infrastructure is lacking. We should be striving to meet that demand by making it so people can safely walk to destinations like work, but also grocery stores, school, healthcare, and other daily needs.



Endnotes

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Appendix A: Methodology

This report evaluates fatality data over five years (2016-2020) using Fatality Analysis Reporting System (FARS) data from the National Highway Traffic Safety Administration. The most recent data available from 2020 became available in Spring 2022.

The impact of the pandemic on the data we typically use, coupled with significantly higher fatality rates during the pandemic, required a new approach to assessing pedestrian danger, which also allowed us to address the unique impact of the pandemic. After more than a decade of calculating pedestrian danger in the same way—in part so that rankings could be compared over past editions to allow the public to see how places were getting more or less deadly—this edition of Dangerous by Design includes two significant changes: 1) a five-year time frame for pedestrian death rankings rather than ten years, and 2) removing any normalization by walking rates to generate a “Pedestrian Danger Index” and instead reporting on deaths per 100,000 people.

All pedestrian fatalities are reported within the five-year timeframe of 2016 to 2020 which differs from the 10-year time frame used in previous versions of the report. The pandemic’s impact on walking data was already going to make continuity with previous editions impossible, giving us the chance to depart from the ten-year horizon and begin assembling state and metro rankings in this 2022 edition using a five-year time period. Shifting to five years allows us to both more heavily weight what happened in the pandemic year of 2020, while also drawing a sharper focus on current and more recent conditions. Additionally, USDOT, states, and metro areas also typically operate on five-year cycles

for spending, planning, and performance measurement, making it a logical timeframe.

While previous versions of the report all used the Pedestrian Danger Index which normalized the pedestrian fatalities per 100,000 people further by walking rates, this report only uses pedestrian fatalities per 100,000 people for all comparisons. In the last report, the Pedestrian Danger Index used journey-to-work trips from the Census American Community Survey (ACS) data. Up until the pandemic shut things down March 2020, the share of people walking to work was a good, if limited, proxy for the amount of overall walking in a region or state, but with shifts in travel behavior that are likely to be somewhat permanent, this was no longer the case.

This year’s report includes a brand new section (IV) analyzing how the pandemic impacted walking rates in the 100 largest MSAs using both the ACS walk to work data and Streetlight Data. To gain a better understanding of how and where people walk and how that affected fatalities, we divided MSAs into two groups: dangerous cities (more than 1.8 deaths per 100k) and safer cities (up to 1.8 deaths per 100k) to analyze and compare the average walking commute rates and Streetlight walking indices between the two groups and how death rates and walking rates changed during the pandemic on average in each group.

All population, race, age, and ethnicity data are from the 2016-2020 American Community Survey 5-year estimates, to ensure the most up-to-date information at the time of this report. NHTSA FARS data do not include information about the household income of individuals who are

struck and killed while walking; however, they do reveal where people are walking when they are killed. To analyze where pedestrian fatalities occur relative to median household income of the surrounding area, fatalities were joined using GIS to census tracts. The median household income of census tracts was grouped into quintiles to determine high- and low- income communities. Pedestrian deaths were then aggregated into these five tract types, and normalized by the population of the tracts. While FARS data do not include individual-level household income data, this analysis serves as a method to determine whether pedestrians die disproportionately in low-income areas. To calculate the number of fatalities by MSA, a spatial join was performed with the longitude and latitude as reported by FARS.

Appendix: Metro data

Rank	Metro area	Average ped deaths/100k people per year	Pedestrian deaths (2016 - 2020)	Difference in average daily walking trips, 2019 to 2020*	Pandemic change in fatality rate (Avg. 2016-19 vs 2020)	Long term trend in fatality rate (Five-year averages for 2011-15 vs 2016-20)
1	Deltona-Daytona Beach-Ormond Beach, FL	4.25	140	61%	0.68	0.97
2	Albuquerque, NM	4.19	192	35%	-0.48	1.91
3	Memphis, TN-MS-AR	3.93	264	49%	2.15	1.77
4	Tampa-St. Petersburg-Clearwater, FL	3.55	559	50%	-0.41	0.54
5	Charleston-North Charleston, SC	3.54	140	56%	1.36	1.57
6	Jacksonville, FL	3.44	264	60%	0.19	0.24
7	Bakersfield, CA	3.41	152	31%	0.06	0.68
8	Orlando-Kissimmee-Sanford, FL	3.37	431	22%	-0.72	0.6
9	Stockton, CA	3.35	126	44%	-0.74	1.52
10	Fresno, CA	3.25	161	24%	1.22	1.24
11	Baton Rouge, LA	3.2	137	58%	1.54	0.93
12	Palm Bay-Melbourne-Titusville, FL	3.13	93	60%	-0.39	0.24
13	Tucson, AZ	3.12	162	44%	0.77	1.16
14	Miami-Fort Lauderdale-Pompano Beach, FL	3.11	954	34%	-0.01	0.48
14	Riverside-San Bernardino-Ontario, CA	3.11	716	35%	0.41	1.02
16	Columbia, SC	3	125	69%	-0.03	0.5
17	Greenville-Anderson, SC	2.97	135	79%	0.09	0.77
18	El Paso, TX	2.95	124	34%	-1.76	0.79
19	North Port-Sarasota-Bradenton, FL	2.92	120	71%	1.15	0.28
20	San Antonio-New Braunfels, TX	2.82	354	47%	0.46	0.43
21	Lakeland-Winter Haven, FL	2.81	99	71%	0.67	0.48
22	Phoenix-Mesa-Chandler, AZ	2.8	681	50%	-0.16	0.94
23	Cape Coral-Fort Myers, FL	2.78	105	61%	0.59	0.43
24	Little Rock-North Little Rock-Conway AR	2.75	102	71%	2.28	1.01
25	Las Vegas-Henderson-Paradise, NV	2.62	292	9%	0.03	0.41
25	Jackson, MS	2.62	78	58%	1.35	0.37

* Via Streetlight Data, based on information from cellphones and mobile devices. Includes an expansive amount of walking trip data not limited to streets and sidewalks.

** Streetlight Data did not have information for metro Honolulu, HI.

Rank	Metro area	Average ped deaths/100k people per year	Pedestrian deaths (2016 - 2020)	Difference in average daily walking trips, 2019 to 2020*	Pandemic change in fatality rate (Avg. 2016-19 vs 2020)	Long term trend in fatality rate (Five-year averages for 2011-15 vs 2016-20)
27	Atlanta-Sandy Springs-Alpharetta, GA	2.53	752	43%	0	0.82
27	Sacramento-Roseville-Folsom, CA	2.53	296	36%	-0.04	0.74
29	New Orleans -Metairie, LA	2.48	158	24%	0.14	0.38
30	Louisville/Jefferson County, KY-IN	2.47	156	55%	0.36	0.84
31	San Diego-Chula Vista-Carlsbad, CA	2.45	407	20%	0.13	0.57
32	Los Angeles-Long Beach-Anaheim, CA	2.4	1586	6%	0.08	0.53
33	Oklahoma City, OK	2.3	161	66%	0.5	0.83
34	Birmingham-Hoover, AL	2.28	124	82%	0.36	0.75
35	Richmond, VA	2.25	144	48%	0.29	1.09
36	Houston-The Woodlands-Sugar Land, TX	2.23	779	51%	0.12	0.39
37	Austin-Round Rock-Georgetown, TX	2.2	239	43%	0.53	0.44
38	New Haven-Milford, CT	2.15	92	43%	0.97	0.92
39	Baltimore-Columbia-Towson, MD	2.11	295	28%	-0.09	0.43
39	Augusta-Richmond County, GA-SC	2.11	64	73%	1.26	-0.13
41	Nashville-Davidson--Murfreesboro--Franklin, TN	2.09	199	53%	0.9	0.88
41	Tulsa, OK	2.09	104	71%	0.14	0.43
43	Urban Honolulu, HI	2.06	101	**	-0.53	0.33
44	Dallas-Fort Worth-Arlington, TX	2.04	761	53%	0.35	0.55
44	Charlotte-Concord-Gastonia, NC-SC	2.04	265	58%	0.4	0.42
46	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1.98	604	31%	-0.21	0.22
46	Greensboro-High Point, NC	1.98	76	57%	0.11	0.31
48	Detroit-Warren-Dearborn, MI	1.86	401	46%	0.28	-0.01
49	San Jose-Sunnyvale-Santa Clara, CA	1.84	183	11%	-0.04	0.2
50	Portland-Vancouver--Hillsboro, OR-WA	1.83	226	38%	0.02	0.61
51	St. Louis, MO-IL	1.82	255	55%	0.63	0.34

* Via Streetlight Data, based on information from cellphones and mobile devices. Includes an expansive amount of walking trip data not limited to streets and sidewalks.
 ** Streetlight Data did not have information for metro Honolulu, HI.

Rank	Metro area	Average ped deaths/100k people per year	Pedestrian deaths (2016 - 2020)	Difference in average daily walking trips, 2019 to 2020*	Pandemic change in fatality rate (Avg. 2016-19 vs 2020)	Long term trend in fatality rate (Five-year averages for 2011-15 vs 2016-20)
52	Syracuse, NY	1.75	57	40%	-0.07	0.93
53	Indianapolis-Carmel-Anderson, IN	1.73	177	56%	0.75	0.23
54	Denver-Aurora-Lakewood, CO	1.67	245	35%	-0.02	0.33
54	Bridgeport-Stamford-Norwalk, CT	1.67	79	42%	-0.5	0.8
56	San Francisco-Oakland-Berkeley, CA	1.61	378	4%	0.06	0.13
57	Raleigh-Cary, NC	1.6	109	54%	0.35	0.2
58	Harrisburg-Carlisle, PA	1.57	45	45%	-1.32	0.6
59	McAllen-Edinburg-Mission, TX	1.56	67	65%	-0.36	-0.08
60	Durham-Chapel Hill, NC	1.54	49	41%	0.21	-0.18
61	New York-Newark-Jersey City, NY-NJ-PA	1.52	1468	20%	-0.11	-0.09
62	Salt Lake City, UT	1.51	92	53%	-0.57	0.09
63	Knoxville, TN	1.49	64	78%	0.16	0.32
63	Winston-Salem, NC	1.49	50	73%	-0.76	0.11
65	Kansas City, MO-KS	1.46	157	68%	0.02	0.31
65	Dayton-Kettering, OH	1.46	59	56%	0.18	NA
65	Toledo, OH	1.46	47	59%	0.31	0.14
65	Chattanooga, TN-GA	1.46	41	71%	-0.28	0.31
69	Washington-Arlington-Alexandria, DC-VA-MD-WV	1.45	452	19%	0.2	0.21
70	Colorado Springs, CO	1.44	53	56%	0.05	0.56
71	Columbus, OH	1.43	150	50%	0.1	0.36
72	Scranton--Wilkes-Barre, PA	1.41	39	60%	0.05	-0.16
73	Seattle-Tacoma-Bellevue, WA	1.38	271	27%	0.32	0.47
73	Virginia Beach-Norfolk-Newport News, VA-NC	1.38	122	40%	-0.39	-0.01
75	Chicago-Naperville-Elgin, IL-IN-WI	1.36	644	39%	0.03	0.3
75	Spokane-Spokane Valley, WA	1.36	38	48%	0.29	0.28
77	Milwaukee-Waukesha, WI	1.31	103	55%	-0.37	0.18

* Via Streetlight Data, based on information from cellphones and mobile devices. Includes an expansive amount of walking trip data not limited to streets and sidewalks.

** Streetlight Data did not have information for metro Honolulu, HI.

Rank	Metro area	Average ped deaths/100k people per year	Pedestrian deaths (2016 - 2020)	Difference in average daily walking trips, 2019 to 2020*	Pandemic change in fatality rate (Avg. 2016-19 vs 2020)	Long term trend in fatality rate (Five-year averages for 2011-15 vs 2016-20)
77	Hartford-East Hartford-Middletown, CT	1.31	79	43%	0.03	-0.02
79	Providence-Warwick, RI-MA	1.3	105	46%	0.54	0.17
80	Rochester, NY	1.29	69	48%	0.14	0.31
81	Wichita, KS	1.28	41	62%	0.16	0.31
82	Cincinnati, OH-KY-IN	1.22	135	57%	0.28	0.36
83	Albany-Schenectady-Troy, NY	1.2	53	38%	-0.52	-0.03
84	Springfield, MA	1.17	41	21%	-1.1	-0.13
85	Oxnard-Thousand Oaks-Ventura, CA	1.16	49	40%	0.33	-0.15
86	Ogden-Clearfield, UT	1.13	38	78%	0.25	-0.06
87	Grand Rapids-Kentwood, MI	1.1	59	65%	0.01	-0.08
88	Cleveland-Elyria, OH	1.08	111	45%	0.11	0.44
89	Omaha-Council Bluffs, NE-IA	1.06	50	70%	0.12	0.35
90	Allentown-Bethlehem-Easton, PA-NJ	1.05	44	60%	0.33	-0.3
91	Buffalo-Cheektowaga, NY	1.01	57	34%	-0.15	-0.1
91	Boise City, ID	1.01	37	63%	-0.61	0.43
93	Akron, OH	1	35	59%	0.01	0.32
94	Boston-Cambridge-Newton, MA-NH	0.96	233	20%	-0.09	-0.05
95	Pittsburgh, PA	0.92	107	43%	-0.18	0.03
96	Worcester, MA-CT	0.91	43	54%	-0.48	-0.4
97	Poughkeepsie-Newburgh-Middletown, NY	0.89	30	51%	0.19	NA
98	Des Moines-West Des Moines, IA	0.81	28	70%	0.24	-0.15
99	Minneapolis-St. Paul-Bloomington, MN-WI	0.8	145	50%	-0.18	0.17
100	Madison, WI	0.79	26	52%	0.15	0.06
101	Provo-Orem, UT	0.57	18	67%	0.06	-0.18

* Via Streetlight Data, based on information from cellphones and mobile devices. Includes an expansive amount of walking trip data not limited to streets and sidewalks.

** Streetlight Data did not have information for metro Honolulu, HI.

Appendix: State data

Rank	State	Average ped deaths/100k people per year	Pedestrian deaths (2016 - 2020)	Difference in average daily walking trips, 2019 to 2020*	Pandemic change in fatality rate (Avg. 2016-19 vs 2020)	Long term trend in fatality rate (Five-year averages for 2011-15 vs 2016-20)
1	New Mexico	3.76	394	39%	0.01	1.09
2	Florida	3.22	3,420	48%	0.02	0.49
3	South Carolina	3.19	811	72%	0.56	0.82
4	Arizona	2.98	1,070	53%	0.08	0.82
5	Delaware	2.89	140	50%	-0.42	0.04
6	Louisiana	2.86	668	53%	0.28	0.62
7	Mississippi	2.6	388	82%	1.19	0.83
8	Nevada	2.58	391	17%	-0.01	0.41
9	Georgia	2.4	1,261	59%	0.29	0.74
9	California	2.4	4,729	19%	0.13	0.55
11	Alabama	2.32	567	90%	-0.33	0.63
12	Texas	2.26	3,231	57%	0.15	0.44
13	Hawaii	2.13	151	NA**	-0.81	0.41
14	North Carolina	2.04	1,060	63%	0.17	0.23
15	Oklahoma	2.02	399	78%	0.15	0.53
16	Maryland	2.01	606	34%	0.17	0.31
17	Tennessee	2	677	68%	0.67	0.72
18	Arkansas	1.99	300	86%	0.86	0.53
19	New Jersey	1.96	870	40%	0.03	0.24
20	Oregon	1.81	377	46%	-0.13	0.41
21	Kentucky	1.8	401	66%	0.3	0.54
22	Missouri	1.71	524	72%	0.47	0.38
23	Alaska	1.6	59	NA**	0.2	0.26
24	Connecticut	1.56	278	45%	0.02	0.45

* Via Streetlight Data, based on information from cellphones and mobile devices. Includes an expansive amount of walking trip data not limited to streets and sidewalks.
** Streetlight Data did not have data for Hawaii or Alaska

Rank	State	Average ped deaths/100k people per year	Pedestrian deaths (2016 - 2020)	Difference in average daily walking trips, 2019 to 2020*	Pandemic change in fatality rate (Avg 2016-19 vs 2020)	Long term trend in fatality rate (Five-year averages for 2011-15 vs 2016-20)
25	Michigan	1.55	773	58%	0.2	0.08
26	Colorado	1.48	420	43%	0.05	0.37
27	District of Columbia	1.4	49	-36%	0.01	-0.02
27	Indiana	1.4	468	69%	-0.02	0.27
29	Montana	1.39	74	64%	0.24	-0.01
30	Virginia	1.37	585	49%	-0.1	0.38
31	New York	1.35	1,314	21%	-0.2	-0.18
32	West Virginia	1.34	121	69%	-0.42	0.08
33	Washington	1.32	494	39%	0	0.34
34	Rhode Island	1.27	67	41%	0.43	0.23
34	Illinois	1.27	808	49%	0.14	0.23
36	Pennsylvania	1.26	804	45%	-0.17	0.06
37	Ohio	1.18	686	60%	0.23	0.31
38	Utah	1.17	184	67%	-0.17	0.03
39	Wyoming	1.14	33	64%	-0.13	0.24
40	Kansas	1.13	165	74%	0.56	0.36
41	South Dakota	1.07	47	86%	0.64	0.29
42	Massachusetts	1.06	365	24%	-0.32	-0.08
43	Maine	1.03	69	60%	-0.45	0.16
44	Nebraska	0.98	94	80%	-0.05	0.32
45	Vermont	0.93	29	-5%	0.44	0.04
45	New Hampshire	0.93	63	66%	0.31	0.25
45	Wisconsin	0.93	269	72%	-0.09	0.09
48	Idaho	0.86	75	70%	-0.09	0.15
49	North Dakota	0.82	31	65%	0.29	-0.09
50	Minnesota	0.82	230	59%	-0.03	0.22
51	Iowa	0.73	115	86%	0.16	0.03

* Via Streetlight Data, based on information from cellphones and mobile devices. Includes an expansive amount of walking trip data not limited to streets and sidewalks.



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