

2050 Metropolitan Transportation Plan Technical Workshop

August 8, 2024



Welcome!

Federal Highway Administration **East Central Florida Regional Planning Council** Central Florida Regional Transportation Authority/LYNX **Orange County** Apopka Belle Isle **Eatonville Edgewood** Maitland **Oakland** Ocoee **Orlando Windermere** Winter Garden Winter Park **SunRail Greater Orlando Aviation Authority Osceola County** Kissimmee Saint Cloud **Kissimmee Gateway Airport Seminole County** Altamonte Springs **Casselberry** Lake Mary Longwood Oviedo Sanford Winter Springs **Orlando-Sanford International Airport** Florida Department of Transportation Florida Turnpike Enterprise Central Florida Expressway Authority **Central Florida Tourism Oversight District** **Orange County Public Schools** **Osceola County Public Schools** **Seminole County Public Schools**

AGENDA

- I. General Status Updates
- II. Overview of Congestion Management Process
- III. Review of Financial Resources
- IV. Approach to Prioritization Methodology
- V. Open Discussion
- VI. Public Comments
- VII. Next Steps
- VIII. Adjournment



Status Update

- **Goals & Objectives**

- Developed Goals and Objectives
- Finalizing Indicators

- **Drivers of Change**

- Finalizing report content

- **Safety / Regional Vision Zero Action Plan**

- Completed public review of draft plan

Drafts published online at
www.MetroPlanOrlando.gov/2050



Status Update

Technical Analysis

- CFRPM Socioeconomic Data Review
 - Performing secondary review of base year socioeconomic data
- Freight
 - Conducted industry & public agency roundtable events
 - Developed methodology framework for freight network classification



Status Update

Technical Analysis

- **Health**

- Completed literature review & regional health profile mapping
- Conducted stakeholder meetings
- Evaluating strategies and actions for 2050 MTP

- **Housing**

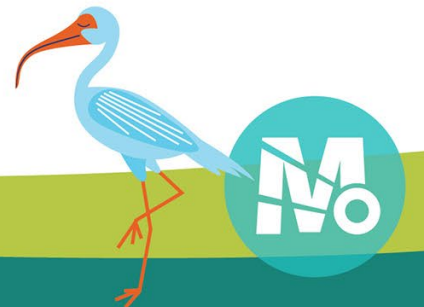
- Completed literature review
- Stakeholder interviews underway
- Refining strategies and recommendations



Status Update

Technical Analysis

- **Environmental**
 - Completed Air Quality & Existing Conditions Technical Memorandums
 - Preparing for stakeholder interviews
 - Drafting Environmental Consultation Process document
- **Resilience**
 - Regional risk assessment underway
 - Preparing for stakeholder interviews



Status Update

Needs Assessments

- **Draft State Highway System Needs Review**
 - Reviewing the draft needs list with local jurisdictions and FDOT
 - Feedback due tomorrow (8/9/24)
- **Off-System Needs Approach**
 - Consolidate 2045 MTP Needs Lists
 - Update with the completed 2050 Needs Assessments
 - Coordinate with local jurisdictions to develop and refine Draft Off-System Needs List

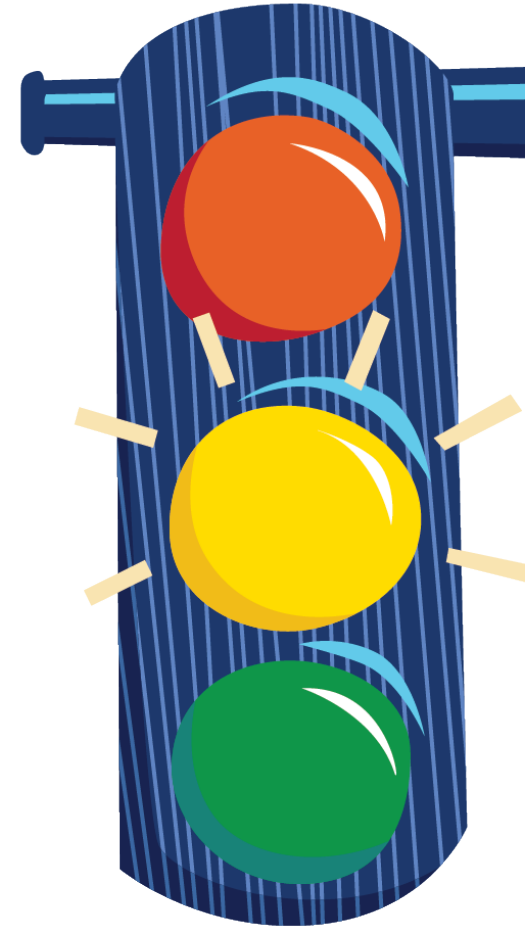
Completed Assessments

- Transit
- TSM&O
- Active Transportation



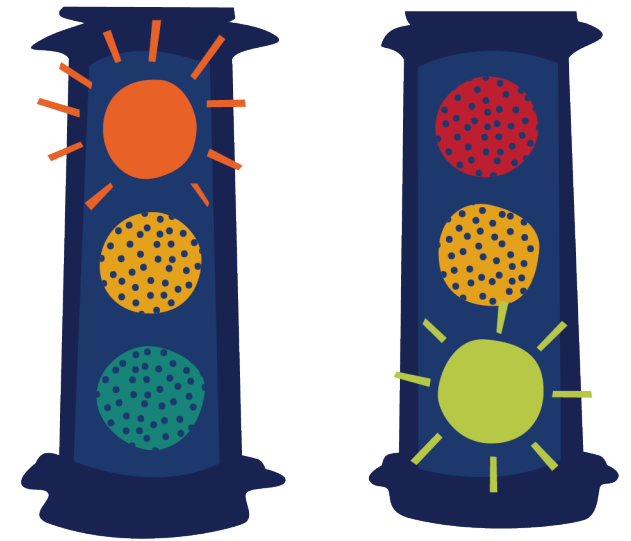
Congestion Management Process

Lara Bouck, MetroPlan Orlando



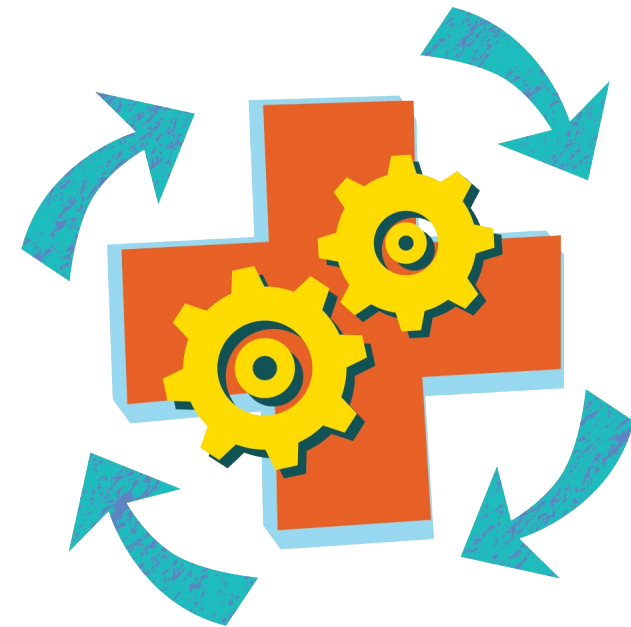
Defining Terms: Congestion Management

Application of strategies to improve transportation system performance and reliability by reducing the adverse impacts of congestion on the movement of people and goods.

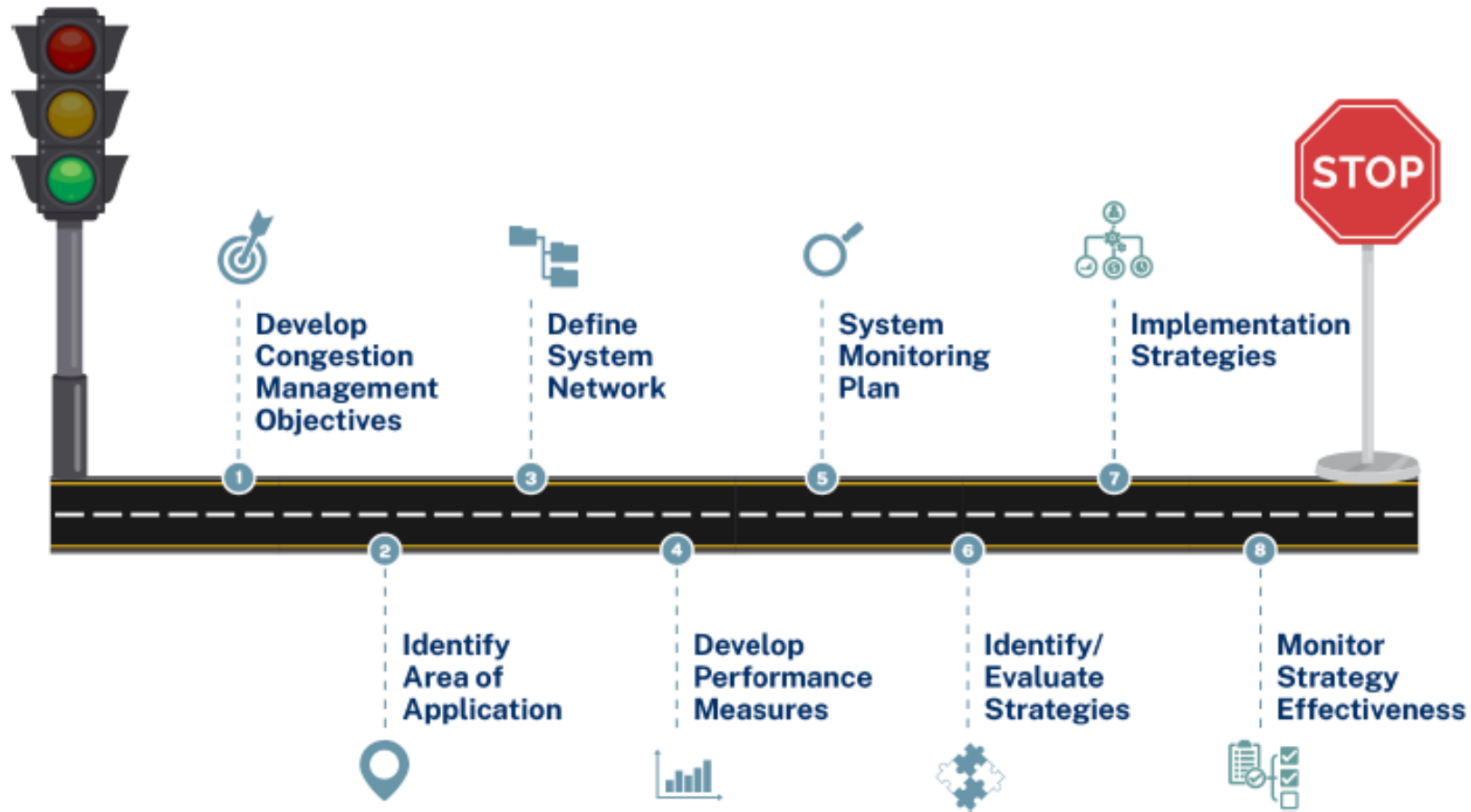


Defining Terms: Congestion Management Process (CMP)

A method of managing congestion that provides information on transportation system performance.



Overview



2050 CMP Update

1. Goals & Objectives

- Consistent with 2050 MTP
- Supported by strategies
- Measurable

2. Performance Measures

- Adding and removing measures
- Updating targets
- Evaluation and monitoring plan

3. Strategies

- Catalog implemented strategies
- Determine effectiveness
- Recommend for future/continued deployment or removal

4. Scorecard

- Key Measures
- Recurring updates

2050 CMP Objectives – Goal Area: Safety*

Proposed Objectives

- Eliminate deaths and serious injuries on the transportation system
- Improve incident clearance times

2045 Objectives

- Eliminate the rate and occurrence of transportation system fatalities, injuries, and crashes with high emphasis on the most vulnerable users
- Improve emergency response and incident clearance times

**2045 Goal Area: Safety & Security*



2050 CMP Objectives – Goal Area: Reliability*

Proposed Objectives

- Improve travel time reliability
- Promote projects that improve reliability
- Provide travelers with more predictable travel times on all modes

2045 Objectives

- Improve travel time reliability on the transportation system
- Enhance and expand the region's ITS, adaptive and actively managed traffic systems
- Reduce travel time per capita
- Improve average transit on-time performance
- Adapt transportation infrastructure and technologies to meet changing traveler needs and desires

*2045 Goal Area: Reliability & Performance



2050 CMP Objectives – Goal Area: Connectivity*

Proposed Objectives

- Increase accessibility for non-drivers
- Improve connectivity to key destinations
- Expand bicycle, transit, and pedestrian infrastructure

2045 Objectives

- Increase transit system frequency
- Improve housing and employment access to high-frequency transit
- Improve access to essential services across all modes of transportation
- Reduce per capita vehicle miles traveled
- Increase ridership on public transportation
- Reduce the reliance on single-occupant vehicle travel
- Plan and develop transportation systems that reflect regional and community values

**2045 Goal Area: Access & Connectivity*



2050 CMP Objectives – Goal Area: Community

Proposed Objectives

- Maintain Air Quality
- Decrease reliance on single occupancy vehicles

2045 Objectives

- Reduce per capita related air quality pollutants and greenhouse gas emissions

* 2045 Goal Area: Health & Environment



2050 CMP Objectives – Goal Area: Prosperity

Proposed Objectives

- Enhance mobility on key tourist corridors
- Increase access to jobs, with emphasis on essential service workers
- Improve reliability for shippers, goods, and commerce

2045 Objectives

- Reduce per capita delay for residents, visitors, and businesses
- Improve transportation experience for visitors and supportive-industry workers

* 2045 Goal Area: Investment & Economy



System Monitoring – Safety

Measure	2025 Target	Latest Figure	2029 Target
# of Crashes	Zero	64,032 (2023)	Recommended for Removal
# of Vehicle KSI Crashes	Zero	1080 (2023)	Zero
Crash Rate	Zero	257 (2022)	Zero
Bike/Ped KSI Crashes	Zero	817 (2023)	Zero
Speeding-related Crashes	N/A	Pending	Zero
Average Response Times	30 min (60 min after hours)	4.3 minutes	15 min (30 min after hours)
Average Clearance Times	60 minutes	48.3 minutes	50 minutes

Proposed New Measure

Recommended for Removal

Proposed Category Change



System Monitoring – Reliability

Measure	2025 Target	Latest Figure		2029 Target
% of Reliable Interstate Miles	>70%	72% (2022)		>70%
% of Reliable Non-Interstate Miles	≥50%	94% (2022)		≥65%
Truck Reliability Index	≤2.00	2.37 (2022)		≤2.00
% System connected with fiber*	N/A	35% (2023)		40%
% System with connected signals	N/A	Pending		Pending
Annual Delay per capita	12.3 hours	11.8 (2022)		<12.0 hours
Transit OTP	73% both agencies	96% (2022) LYNX	73% (2022) <u>SunRail</u>	90%
Shared <u>Micromobility</u> Trips	N/A	435,631 (2022)		550,000

Proposed New Measure

Recommended for Removal

Proposed Category Change

* Formerly “% System Actively Managed”



Pedestrian (& Bicycle) Delay

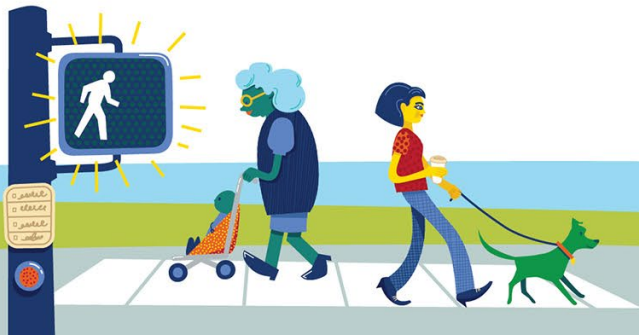
Highway Capacity Manual (HCM) provides pedestrian delay procedures that require the following inputs at signalized intersections:

Cycle length • Phase sequence • Phase duration
Walk interval duration • Distance crossed

Those inputs are used to calculate effective time it takes to cross the road

Effective time – free flow time = delay (in seconds)

The delay time is applied to all pedestrians attempting to cross the road and presented as **seconds per person**



System Monitoring – Connectivity

Measure	2025 Target	Latest Figure	2029 Target
Average Transit Frequency	N/A	30 minutes (2023)	30 minutes
Daily VMT, per capita	29.2	28.2 (2022)	28.2
Annual Passenger Miles	158,405,530 LYNX / 10,944,886 SunRail	93,266,038 LYNX / 14,803,269 SunRail (2022)	Recommended for Removal
Annual Unlinked Trips	26,811,310 LYNX / 754,416 SunRail	16,731,232 LYNX / 868,700 SunRail	20,000,000 LYNX / 1,000,000 SunRail
Avg Weekday Unlinked Trips	85,222 LYNX / 3,600 SunRail	52,862 LYNX / 3,362 Sunrail (2022)	Recommended for Removal
Avg Weekend Unlinked Trips	46,743 LYNX	29,965 (2022)	Recommended for Removal
% of Commutes using non-SOV Modes	20%	27%	33%
% TMA/SU Funds Allocated for Board Emphasis Areas	N/A	\$173M	Recommended for Removal

Proposed New Measure

Recommended for Removal

Proposed Category Change



System Monitoring – Connectivity, *cont.*

Measure	2025 Target	Target Met	Latest Figure	2029 Target
% Ridership, by Headway	N/A	N/A	82% LYNX/ 55% <u>SunRail</u>	75% <u>30 minute</u> headways
% Population within ½-mile frequent transit	N/A	N/A	23% (2022)	33%
% Jobs within ½-mile frequent transit	N/A	N/A	38% (2021)	50%
% Population within a 10-minute walk/bike ride of essential services	N/A	N/A	16% Walk/ 44% Bike (2022)	20% Walk/ 50% Bike

Proposed New Measure

Recommended for Removal

Proposed Category Change



System Monitoring – Community

Measure	2025 Target	Latest Figure	2029 Target
Air Quality Index	<50	46	<45
% of Commutes using non-SOV Modes	20%	27%	33%
Miles of Active Transportation Facilities	N/A	Pending	Pending
Rates of Asthma, Obesity, and Diabetes	N/A	Pending	Pending

Proposed New Measure

Recommended for Removal

Proposed Category Change



System Monitoring – Prosperity

Measure	2025 Target	Latest Figure	2029 Target
Annual Delay per capita	12.4 hours	11.8 (2022)	11.0 hours
% Reliable, Visitor Emphasis Corridor	N/A	Pending	Recommended for Removal
Delay on Visitor Corridors	N/A	1,851	Pending
Median Commute Time	N/A	29.4 mins (2022)	Pending
Truck Travel Time Reliability	≤2.00	2.37 (2022)	≤2.00

Proposed New Measure

Recommended for Removal

Proposed Category Change



Strategy Categories

Proposed

1. Demand Management
2. System Communication
3. Information Collection
4. Arterial Management
5. Interstates and Expressway Management
6. Safety

2045 CMP

1. Safety
2. Optimize System Capacity
3. Shift SOV Trips to Other Modes

Strategies Toolbox: Demand Management

- Create a Transportation Demand Management Strategic Plan
- Magnify TDM strategies
- Adapt roads to accommodate all users
- Improve local street connectivity/accessibility
- Support LYNX/SunRail projects to optimize route structure, service hours, and frequency
- Incorporate TSP on visitor emphasis corridors
- Provide trip planning tools in other languages, for the visually impaired, etc.
- Build towards MaaS platform that allows for single payment option for transportation services throughout the region



Strategies Toolbox: System Communication

- Continue connecting devices and communicating with a central system
- Continue connecting intersections to the TMC and promote interagency communications/interoperability
- Support Traffic Signal Coordination/Active Arterial Management
- Expand advance traffic management systems (ATMS)



Strategies Toolbox: Information Collection

- Expand the actively monitored system
- Set aside funding for data purchases to support decision-making
- Support deployment of instruments to collect data like:
 - Speeds
 - Volumes
 - Queuing
 - Intersection failure(s)
- Adopt systems to provide consistent reporting
 - Dashboard with travel time info
 - Clearance times
 - Real time failed device notification



Strategies Toolbox: Arterial Management

- Special use lanes
- Continue to support signal retiming
- Assess feasibility of reversible lanes
- Reduce access points
- Consider alternative intersection geometry and signal phasing
- Expand ICM program
- Develop consistent curb management
- Plan for EV charging station integration
- Support deployment of adaptive signal control



Strategies Toolbox: Interstate and Expressway Management

- Ramp metering
- Congestion pricing
- Managed lanes
- Special use lanes including auxiliary lanes
- Advanced warning signs
- Deploying and managing DMS
- Hard shoulder running
- Interchange improvements
- Variable speed limits
- Increase reliability of key truck routes
- Integrate CAV study findings into planning efforts



Strategies Toolbox: Safety

- Begin implementing the Regional Vision Zero Action Plan
- Prioritize initiatives and projects that focus on improving safety in support of a VZ approach
- Advance the role of predictive analytics in informing and assisting with incident management
- Implement recommendations from the MetroPlan Orlando Bicycle and Pedestrian Safety Action Plans
- Continue to support Road Rangers service
- Continue to utilize ICM to redirect traffic for major incidents
- Expand notification systems so that info about traffic incidents are pushed via DMS, mobile platforms (Waze, 511), and CVs with appropriate technology



Questions?

- Use the “Raise your hand” button
- Type your questions into the “Q&A” box



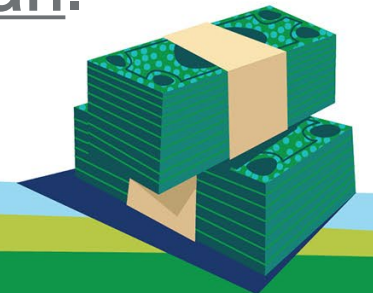
Review of Financial Resources

Mike Vaudo, Kimley-Horn



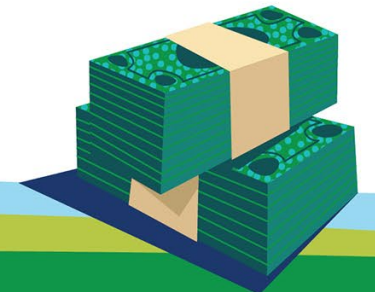
Financial Resources and the 2050 MTP

- Required financial plan that estimates funds that can be available to support implementation of the Plan.
- Indicate funds from public and private sources that are reasonably expected to be made available to carry out the Plan.
- Identify additional financing strategies for project needs.
- Demonstrate fiscal constraint and ensure the MTP reflects realistic assumptions about future revenues.
- Guidance for the development of the MTP Cost Feasible Plan.



Financial Resources Approach

- Identification and documentation of funding sources
- Identify and forecast revenues through Fiscal Year (FY) 2050 and for the following planning periods:
 - 2024 – 2030 (Transportation Improvement Program)
 - 2031 – 2035
 - 2036 – 2040
 - 2041 – 2050



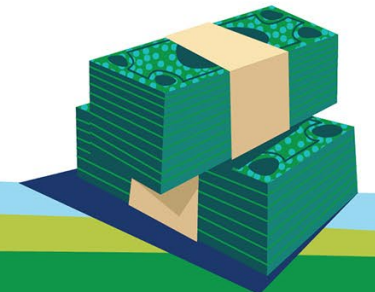
Financial Resources Approach (continued)

- Coordinate with agency partners to confirm local revenue forecasts
- Identify and analyze other potential and innovative funding sources
- Develop Financial Resources Technical Memorandum and Summary Funding Tables



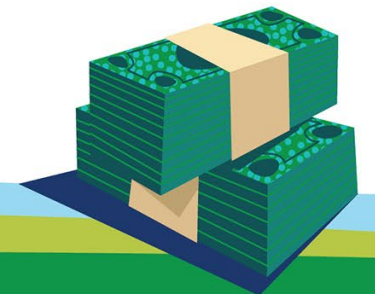
Federal and State Revenue Sources

- Provided by FDOT in *2050 Revenue Forecast Handbook*
- MPO level revenue estimates specific to MetroPlan Orlando
- Districtwide level revenue estimates available to the Districts but programmed in consultation with the MPOs
- Statewide level revenues for informational purposes



Revenue Sources – MPO-Level Estimates

- Surface Transportation Block Grant - Urbanized Area (SU)
- Transportation Alternatives - Urbanized (TALU)
- Carbon Reduction - Urbanized (CARU)
- State Highway System (Non-SIS)
- Other Roads (Non-SHS/Non-SIS)
- Non-SIS Transit Discretionary





Preliminary 2050 Revenue Forecast

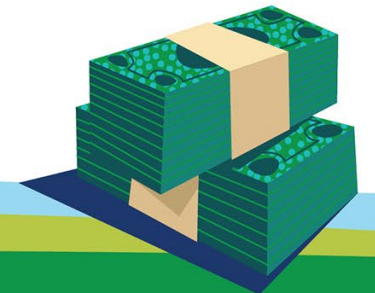
MPO Level Estimates (Draft)

Revenue Source	FY 2031 – FY 2035	FY 2036 – FY 2040	FY 2041 – FY 2050	FY 2031 – FY 2050 Total
Surface Transportation Block Grant - Urbanized Area (SU)	\$144,510,000	\$144,510,000	\$289,030,000	\$578,050,000
Transportation Alternatives - Urbanized (TALU)	\$26,400,000	\$26,400,000	\$52,800,000	\$105,600,000
Carbon Reduction - Urbanized (CARU)	\$21,920,000	\$21,920,000	\$43,840,000	\$87,680,000
State Highway System (non-SIS)	\$91,200,000	\$94,810,000	\$192,990,000	\$379,000,000
Other Roads (non-SIS/non-SHS)	\$44,390,000	\$46,180,000	\$94,020,000	\$184,590,000
Non-SIS Transit Formula	\$87,060,000	\$91,010,000	\$185,660,000	\$363,730,000
Total	\$415,480,000	\$424,830,000	\$858,340,000	\$1,698,650,000

Source: Florida Department of Transportation 2050 Revenue Forecast Handbook

Revenue Sources – Districtwide Estimates

- Surface Transportation Block Grant – Any Area (SU)
- Transportation Alternatives – Any Area (TALT)
- Transportation Regional Incentive Program (TRIP)
- Highway Safety Improvement Program (HSIP)
- Resurfacing, Bridge, Operations, & Maintenance





Preliminary 2050 Revenue Forecast (continued)

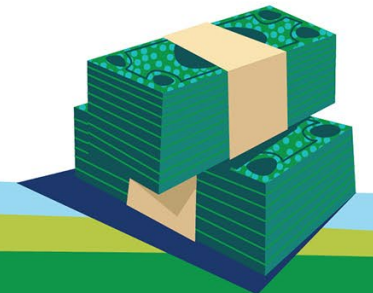
Districtwide Estimates (Draft)

Revenue Source	FY 2031 – FY 2035	FY 2036 – FY 2040	FY 2041 – FY 2050	FY 2031 – FY 2050 Total
STBG - Any Area (SA)	\$302,190,000	\$302,190,000	\$604,380,000	\$1,208,760,000
TA - Any Area (TALT)	\$36,790,000	\$36,790,000	\$73,580,000	\$147,160,000
TRIP	\$55,140,000	\$57,640,000	\$117,580,000	\$230,360,000
HSIP	\$107,840,000	\$107,840,000	\$215,680,000	\$431,360,000
Resurfacing, Bridge, and Operations & Maintenance	\$2,322,500,000	\$2,390,110,000	\$4,842,430,000	\$9,555,040,000

Source: Florida Department of Transportation 2050 Revenue Forecast Handbook

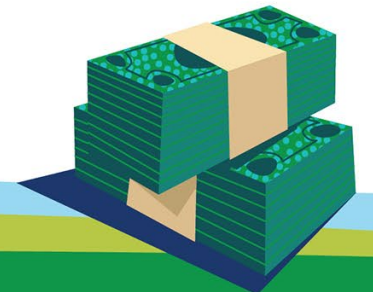
Local Revenue Sources

- Ongoing coordination to identify and confirm anticipated future revenue sources and assumptions:
 - Gas Taxes
 - Infrastructure Sales Taxes
 - Impact Fees and Mobility Fees
- Allocations between capital projects and operations/maintenance



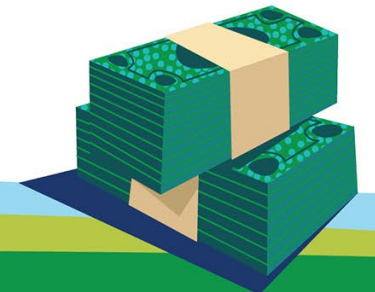
Local Revenue Sources (continued)

- Orange County
- Osceola County
- Seminole County
- Select cities include:
 - Orlando
 - Ocoee
 - Sanford
 - St. Cloud



Strategic Intermodal System (SIS) Revenues

- FDOT Revenue Forecast provides estimated SIS Revenues at statewide level
- SIS revenues and projects within Orange, Osceola, and Seminole County to identified in the *SIS Long Range Cost Feasible Plan FY 2033-2050*

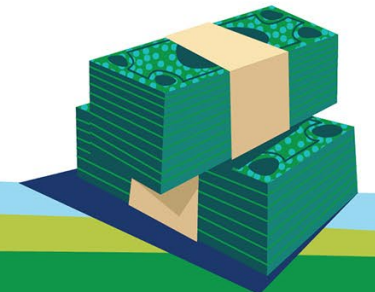


Tolled Facility Revenues

- Identify planned improvements and anticipated expenditures identified
- Florida's Turnpike
 - 10-Year Major Project List
- Central Florida Expressway Authority
 - CFX Work Plan, Master Plan, and staff coordination



**CENTRAL
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Transit Revenue Sources

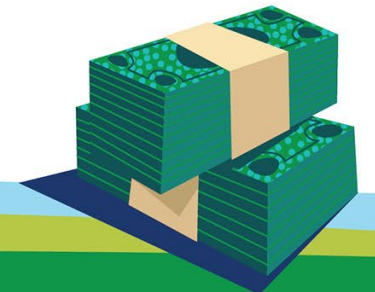
LYNX

- Based on Transit Development Plan (TDP)
10-Year Financial Plan



SunRail

- Consideration of Financial Transition and
funding of Sunshine Corridor



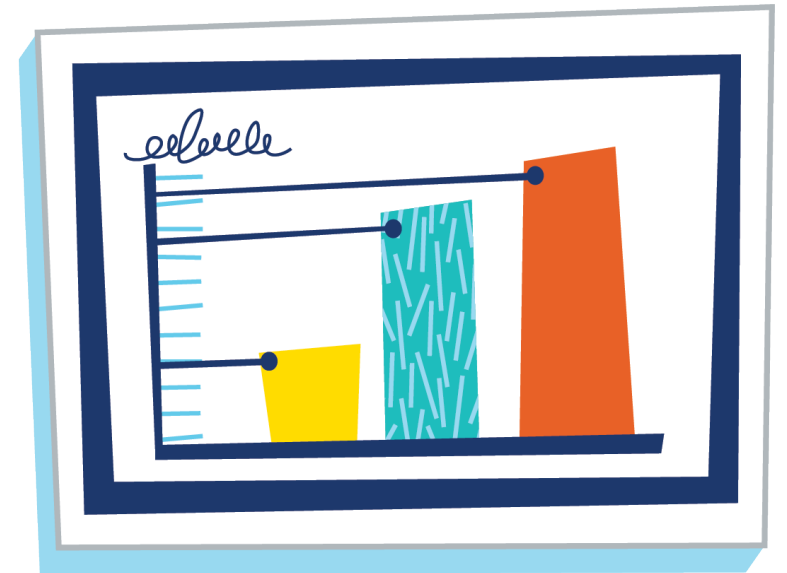
Trends Affecting Available Resources

Rising Project Costs

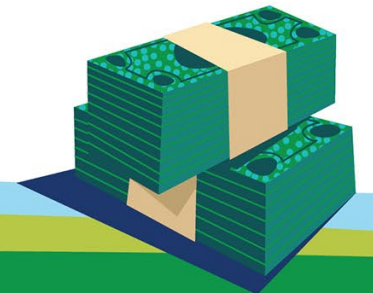
- Impact on number of projects that can advance/scope of project elements
- Example: \$7.5 million (FY 2024) vs. \$4.8 million (FY 2020) cost per mile for new construction*

Impacts on Fuel Tax Revenues

- Increasing fuel efficiency and share of electric vehicles



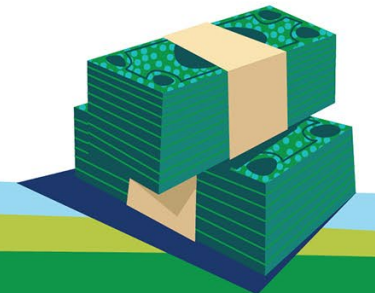
*FDOT Construction Cost Indicators, September 20, 2023



Additional Funding Strategies

Identification of other sources to fund projects or supplement current sources, such as:

- Tolls
- Taxing Districts
- Transportation Sales Tax
- Public Private Partnerships (PPP or P3)
- Discretionary Funding Opportunities and Grants





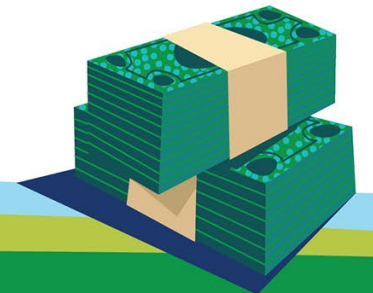
Discretionary Funding Opportunities

Program Name / Funding Agency	Financials	Funding Cycle	Example Project Types
FEDERAL OPPORTUNITIES			
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) USDOT	\$25,000,000 maximum \$5,000,000 minimum 20% cost share	November – February	Highway, bridge, or other road projects, such as: <ul style="list-style-type: none"> - Complete Streets - Active Transportation - Bus Fleet Electrification - Electric Vehicle Charging - Intersection Safety Improvements Passenger and Freight Rail projects Surface transportation components of an airport project Port infrastructure investments Intermodal Projects
Reconnecting Communities Pilot (RCP) Grant Program USDOT	<u>Planning</u> \$2,000,000 maximum 20% cost share <u>Construction</u> \$100,000,000 maximum \$5,000,000 minimum 50% cost share (30% of the cost share can be <i>other federal funds</i>)	July - September	<u>Planning</u> Removing, retrofitting, or mitigating an existing facility to restore community connectivity; public engagement; and other transportation planning activities. <u>Construction</u> Remove, retrofit, mitigate, or to replace an existing eligible facility with a new facility that reconnects communities.

DRAFT

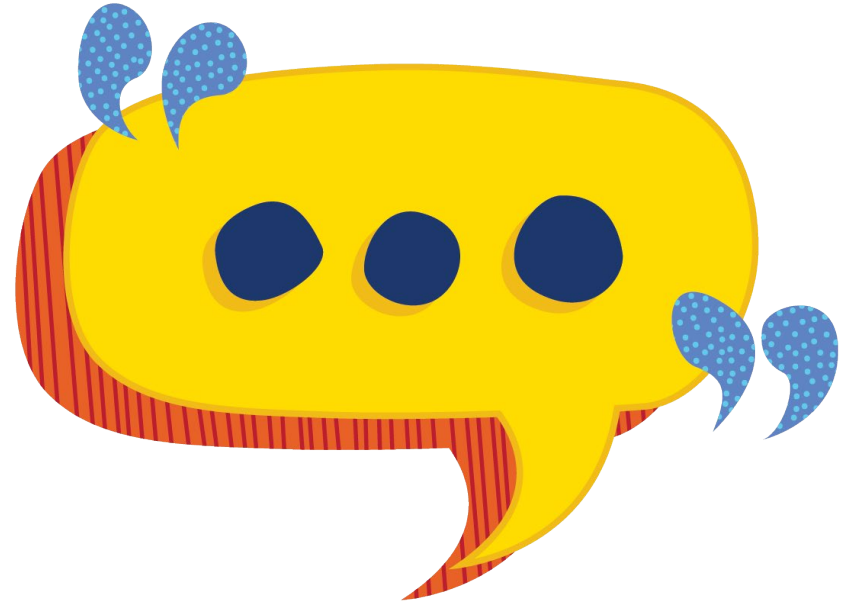
What's Next?

- Continued coordination with agency partners to finalize estimated revenue forecasts and tables
- Development of associated analysis and discussion for Financial Resources Technical Memorandum
- Provide update during October 10 MTP Technical Workshop
- Final Technical Memorandum completed in October



Questions?

- Use the “Raise your hand” button
- Type your questions into the “Q&A” box



Approach to Prioritization Methodology

Taylor Laurent, MetroPlan Orlando



Purpose of Prioritization

- Utilizes a data-driven, context-informed, and multimodal approach
- Applied to projects identified in needs assessment
- Informs the development of the 2050 MTP's Cost Feasible Plan



Approach to Prioritization

- Funding program approach
- Three Step Prioritization Approach
 - 1) Goal Area Weighting
 - 2) Evaluation Criteria
 - 3) Criteria Scoring

2045 MTP Funding Programs /Priority List Categories

- National Highway System & State Roads
- Multimodal System: Roadways & Complete Streets
- Multimodal System: TSM&O
- Multimodal System: Bicycle & Pedestrian
- Transit

Potential New Funding Programs for 2050

- Safety
- Trails & Safe Routes to School
- Critical Sidewalks



Step 1 – Goal Area Weighting

- Weighting applied to MTP Goal Areas to represent preference and significance in relation to one another

Goal Area	Safety	Reliability	Connectivity	Community	Prosperity		Total		
Weighting	??	+	??	+	??	+	??	=	100%

- Your feedback will help create the first draft weighting:
 - <https://www.surveymonkey.com/r/2YQGXC6>
 - Respond to survey by 9/6/24



Next Steps

- Develop project evaluation criteria
 - Accurate and unambiguous
 - Comprehensive and concise
 - Measurable and consistently applied
- Develop scoring methodology
- Present draft prioritization methodology at future 2050 MTP Technical Workshops

2045 MTP Evaluation Criteria for Safety & Security (20% Weighting)

- Crash Rate (5%)
- Fatal & Serious Injury Crash Rates (5%)
- Number of Pedestrian & Bicycle Crashes (5%)
- Evacuation Route Designation (5%)



Open Discussion

- Use the “Raise your hand” button
- Type your questions into the “Q&A” box



How to Make a Public Comment

Verbal Comments

Use “Raise Hand” feature (Or dial *9 if on the phone)

Written Comments

Type in the “Q&A” box

Email MTP@MetroPlanOrlando.gov

After you are recognized, state your name and organization/address and give your comment within two minutes.



Next Steps

- **Submit Feedback on Draft SHS Needs Assessment**
 - Comments due 8/9/24
- **Schedule Off-System Needs Assessment Coordination Meeting**
 - Local agency to respond to invitation email with team availability and attendee list
- **Respond to Prioritization Goal Area Weighting Survey**
 - Responses due 9/6/24
 - <https://www.surveymonkey.com/r/2YQGXC6>



Upcoming Meetings

2050 MTP Technical Workshop #5

October 10, 2024
2:00pm
Virtual

2050 MTP Technical Workshop #6

December 12, 2024
2:00pm
Virtual

2050 MTP Technical Workshop #7

February 13, 2025
2:00pm
Virtual





Thank you!

MetroPlanOrlando.gov/2050 | 407-481-5672

MTP@MetroPlanOrlando.gov

