

Welcome!

Multimodal Needs
September 11, 2025



Today's webinar will begin shortly.

Journey to 2050

Multimodal Needs

September 11, 2025



Our host and presenters



Leilani Vaiaoga
Communications
Specialist
Host



Adriana Rodriguez, PE
Senior Transportation Engineer
Presenter



Lara Bouck, PE, AICP
Manager of Project
Development
Presenter



Taylor Laurent, PE, AICP
Manager, Transportation Planning
2050 MTP Project Manager
Presenter



Who is MetroPlan Orlando?

- We **lead** transportation planning efforts in Orange, Osceola, and Seminole counties.
- We **bring together** local leaders.
- We **prioritize** federal and state transportation dollars.

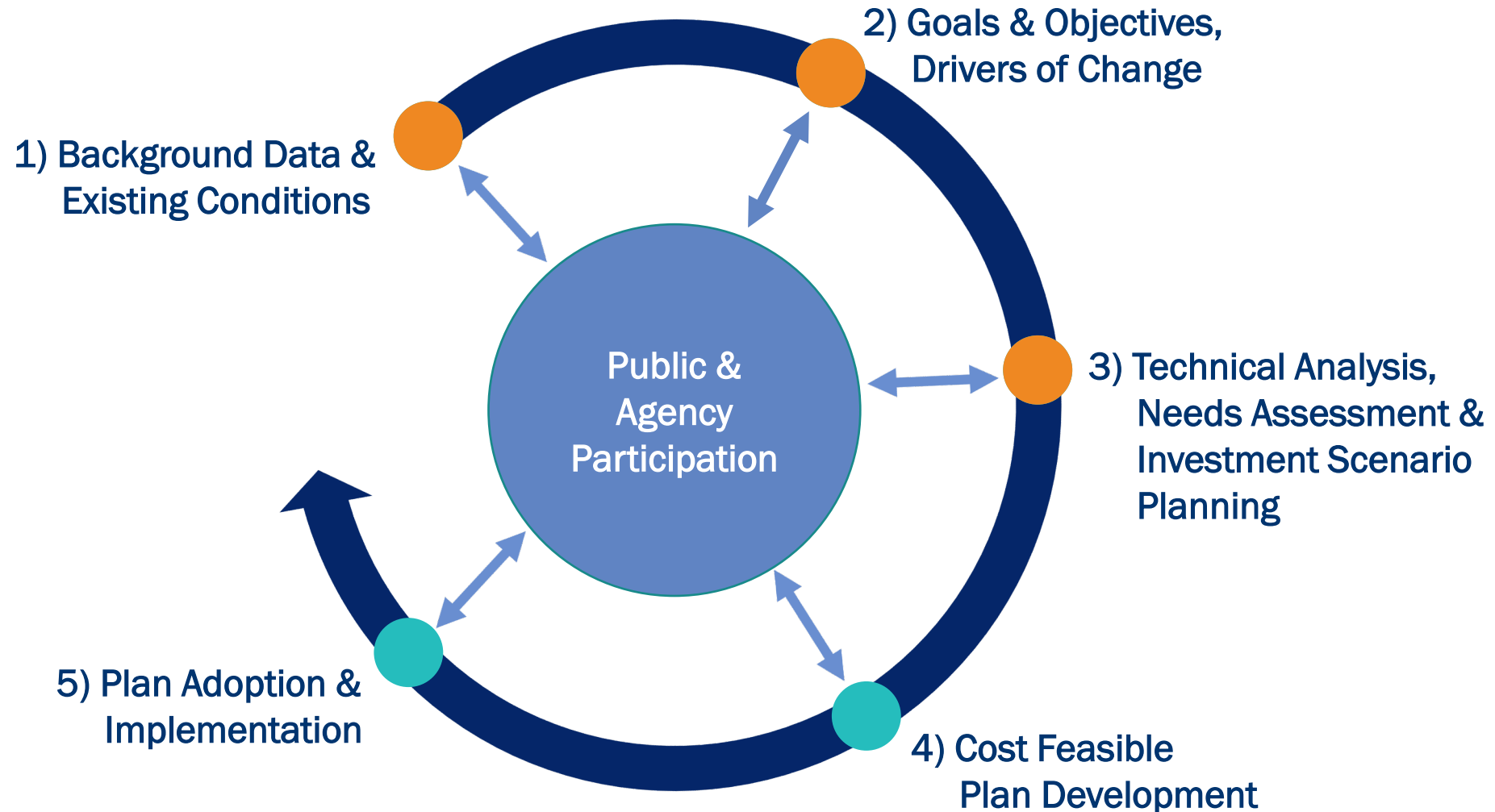


What is the 2050 MTP?



2050 MTP Planning Process

Simplified



Presentation Overview

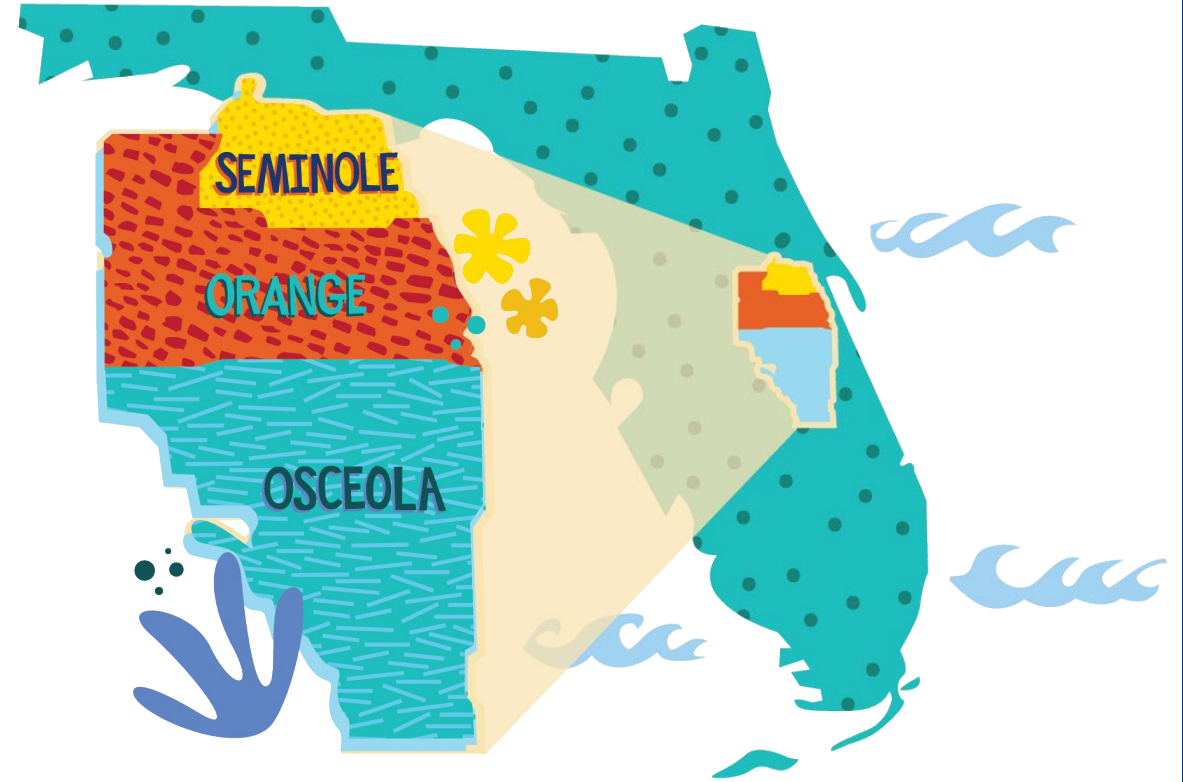
- Needs Assessment Process
- Cost Estimation
- Needs Assessment Results
- Q&A

Journey to 2050



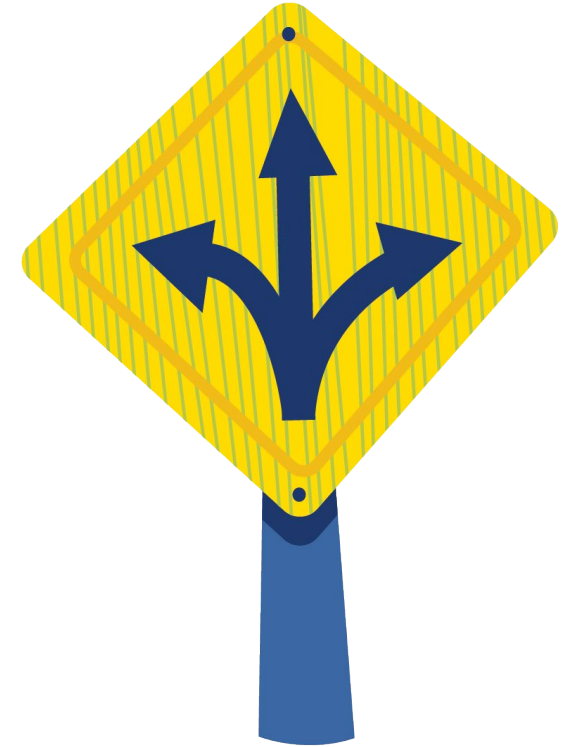
Needs Assessment Process

Lara Bouck, PE, AICP



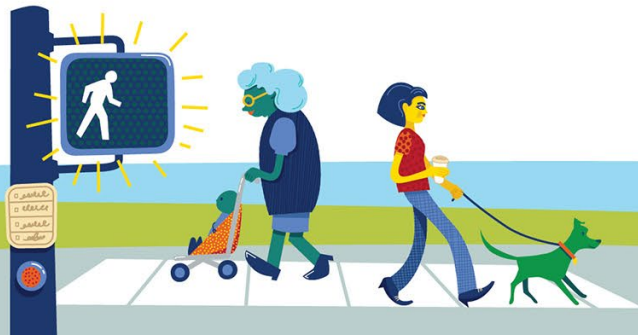
What is a Needs Assessment?

- Considers how we will get around over the next 25 years
 - What options will we use?
 - What needs to be built, or improved, to meet our needs?
- Needs are developed based on data analysis and public input



How is the Needs Assessment used?

- Informs priorities for future investment
- Aligns the 2050 MTP with current and anticipated needs



Needs Assessment Process

Sources of Projects

- 2045 MTP Needs List
- 2050 Capacity Projections
- Modal Master Plans
 - Active Transportation Plan
 - Transit Master Plan
 - Transportation Systems Management & Operations (TSMO) Master Plan
 - Vision Zero Safety Action Plans



- Local Plans
 - Comprehensive Plans
 - Master Plans
 - Corridor Studies



Development of Draft List


Types of Agency Review

- State Highway System (SHS) Needs
 - State roadways eligible for federal aid
- Off-System Needs
 - Non-State roadways that are eligible for federal aid
- Planning Consistency
 - Non-State roadways, only eligible for certain state and federal funds, reviewed and documented for planning consistency
- Needs of Transportation Provider Partners
 - LYNX, SunRail, Central Florida Expressway Authority, Florida's Turnpike Enterprise



Needs Assessment Process

Sources of Projects / Agency Feedback

100+ 
Local Agency Meetings Held

2,900+ 
Needs Identified

25+ Agencies Participated 

13 Needs Categories 



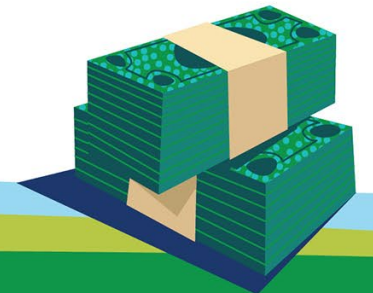
Cost Estimation

Adriana Rodriguez, PE



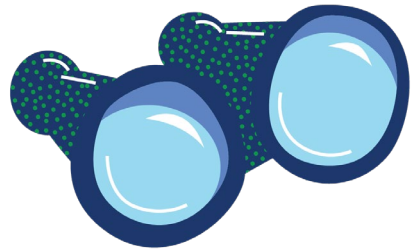
Focus on Implementation

- Add confidence to the 2050 MTP Cost Feasible Plan for implementation
- Project phasing allows for flexibility
- Account for project-specific factors that impact cost



2050 MTP Cost Estimation Methodology

Preliminary Step: Research Best Practices



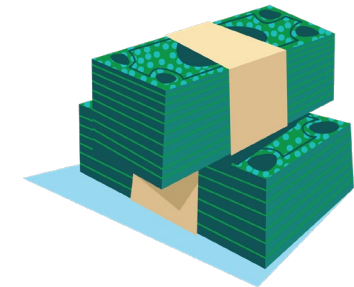
- Review peer MPO/TPOs
- Consider 2045 Plan

Step 1: Initial Cost Estimation



- Identify project categories
- Apply per mile, master plan, or historic costs by category

Step 2: Apply Cost Buffer for Project Complexity

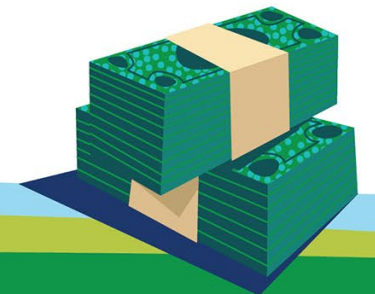


- Develop complexity factor
- Calculate project costs



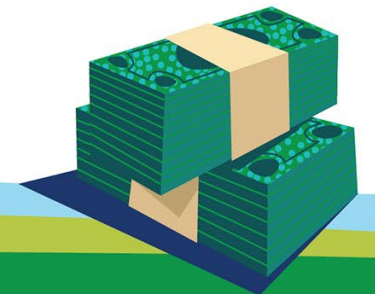
Identification and Refinement of Needs Types

- All identified Needs were grouped into one of the following:
 - Active Transportation (i.e., biking, walking)
 - High Injury Network Countermeasures
 - TSMO/Operational (traffic operations)
 - Complete Streets (streets designed for everyone)
 - Roads



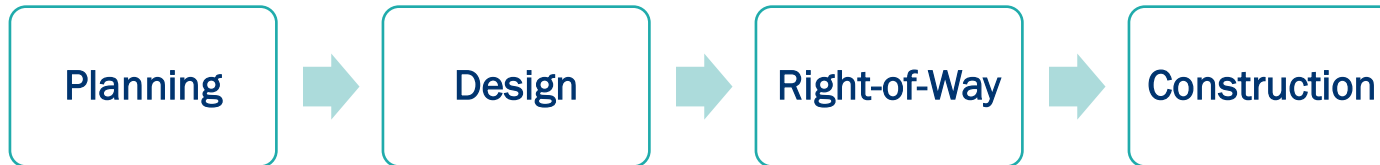
Initial Cost Estimates

- FDOT Cost Per Mile Model Reports
- Cost Estimates from recent planning
 - TSMO Master Plan
 - Vision Zero Action Plans
- Vision Zero cost estimates
- FDOT historical project costs
- Extra costs to meet other needs

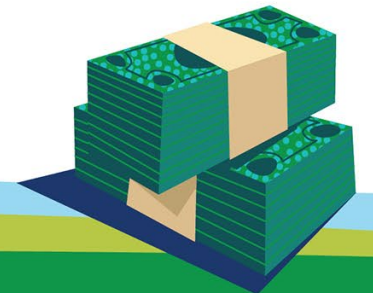
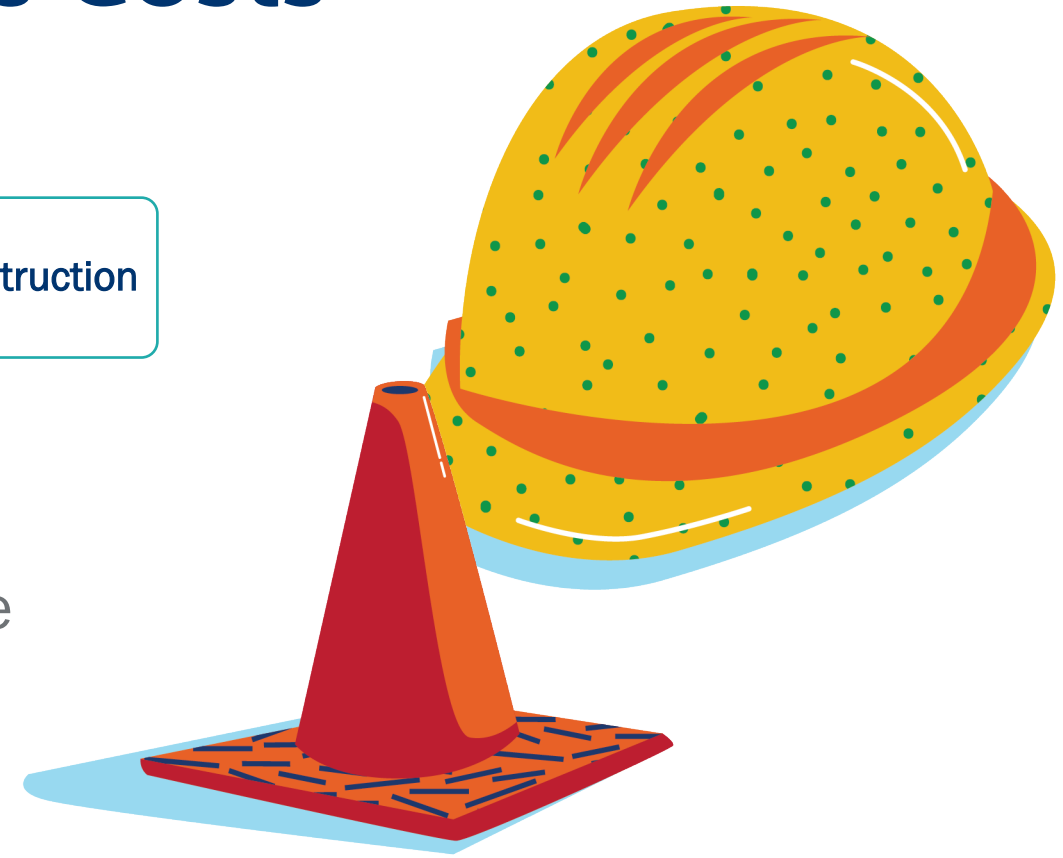


Developing Project Phases Costs

- Typical Project Development Phases



- How we develop phase costs?
 - We use FDOT per-mile costs and apply the percent for each project phase based on the project type
 - For other projects, we use recent phase cost averages from similar FDOT projects



Step 1: Per Mile Cost Estimation

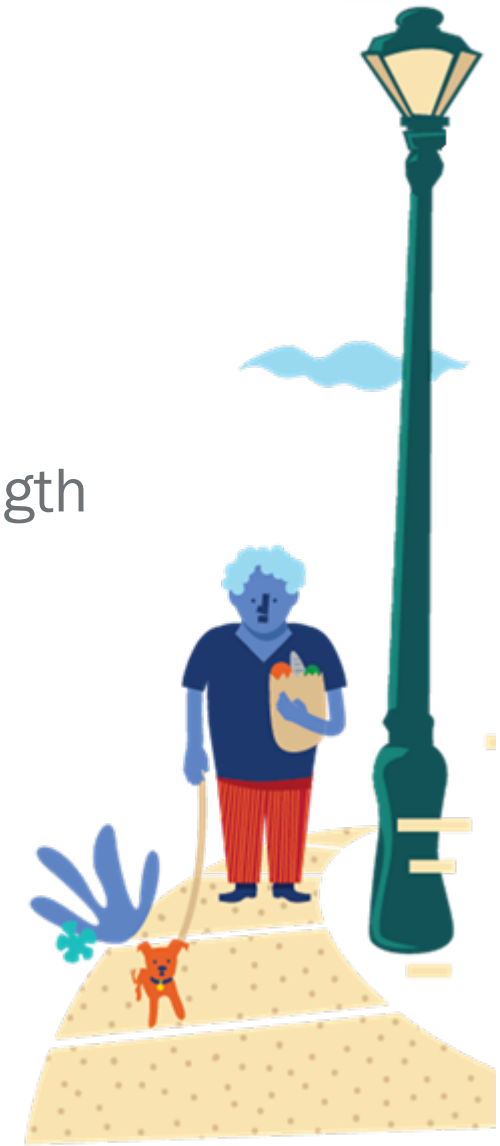
Example

- Let's look at building a new sidewalk!
 - Start with the Project Cost equation
 - Apply the FDOT Cost Per Mile amount and project length
 - Solve by multiplying the two

*Project Cost = FDOT Cost Per Mile * Project Length*

*New Sidewalk = \$349,251.29 * 2 miles*

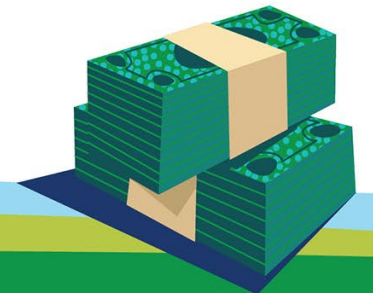
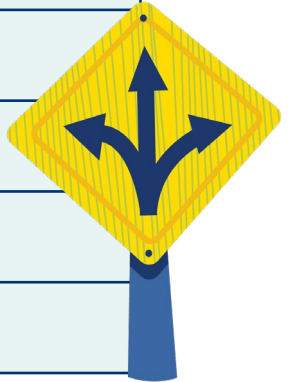
New Sidewalk = \$698,502.58



Project Complexity Estimation

- Complexity Factors
 - Physical location
 - Environmental impacts
 - Securing needed land
 - Managing water and drainage

Complexity Score	Cost Percentage Increase
No Additional Complexity	0%
Low Additional Complexity	25%
Medium Additional Complexity	50%
High Additional Complexity	75%
Very High Additional Complexity	100%



Step 2: Apply Cost Buffer for Project Complexity – Example

- Let's apply the complexity factor to our New Sidewalk project cost
- It turns out that our sidewalk project has medium complexity, due to additional land needed to make our connection.
- Our new cost estimate will be 50% higher.



Needs Assessment Results

Taylor Laurent, PE, AICP



Local Feedback

COUNTIES

3

LOCAL CITIES

20

TRANSIT OPERATORS

2

AIRPORT AUTHORITIES

3



AND FLORIDA DEPARTMENT OF TRANSPORTATION, FLORIDA'S
TURNPIKE ENTERPRISE, CENTRAL FLORIDA EXPRESSWAY AUTHORITY,
CENTRAL FLORIDA TOURISM OVERSIGHT DISTRICT



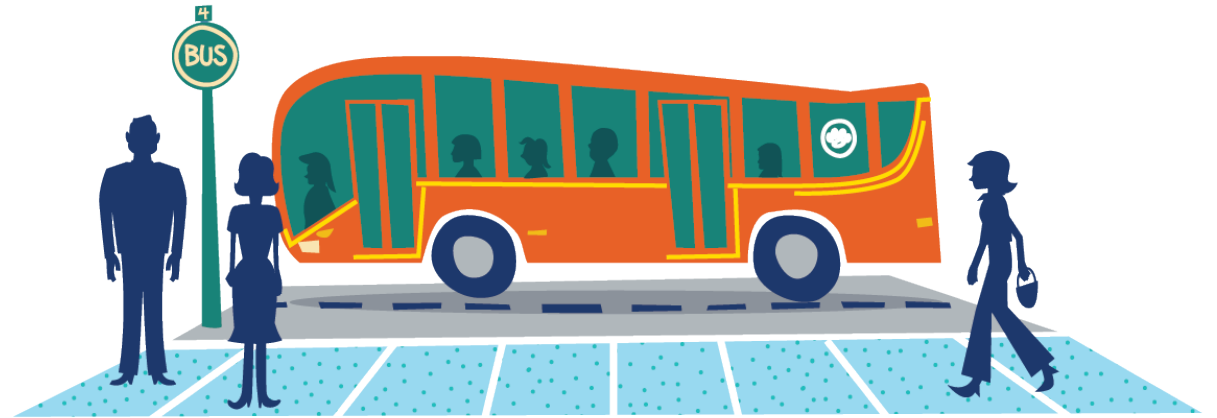
Local Feedback

- Feedback was centered around customizing project needs with:
 - Project descriptions, with a focus on project feasibility
 - Project level of complexity for implementation
 - Maintaining agency's notes on high, medium, or low priorities
 - Updates from recent jurisdictional transfers
- The preparation of this needs assessment goes hand in hand with a realistic cost feasible plan



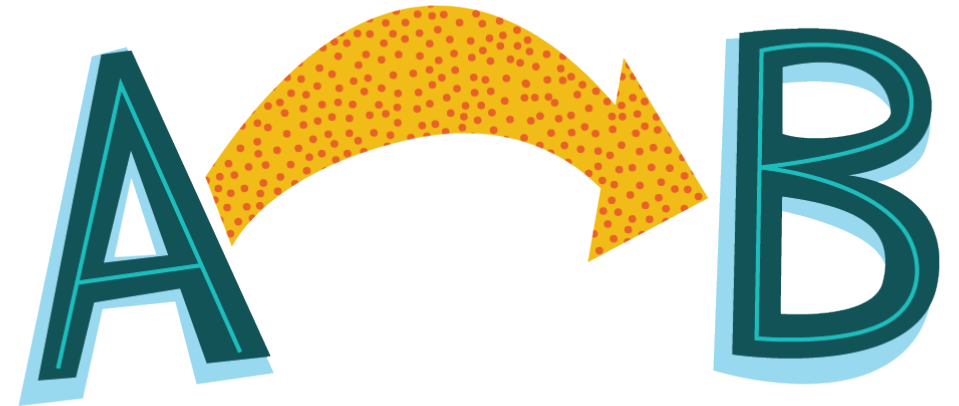
Project Consolidation

- Consolidation refers to combining projects with overlapping needs
- Advantages include:
 - Combining construction phases
 - Reducing project costs



Project Consolidation

- Factors considered
 - Type of Transportation Need
 - Estimated Cost
 - Estimated Project Timeline
 - Jurisdictional Priority Level
 - Transportation Facility's Maintaining Agency
 - Local Agency Feedback



Consolidation Process

Example 1 – Multiple Needs on Bluford Ave from Old Winter Garden Rd to SR 50

1

Need: High Injury Network (HIN) Countermeasures

Project Description: Intersection upgrades to improve safety

Jurisdictional Priority: High

2

Need: TSMO/ITS

Project Description: Operational/safety

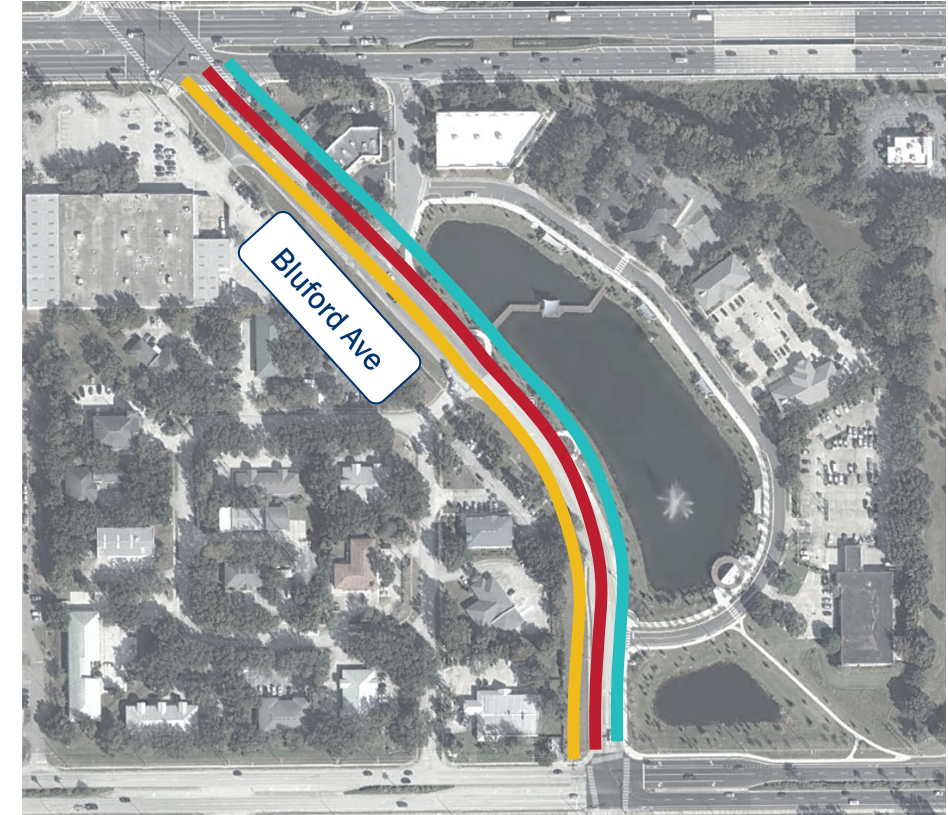
Jurisdictional Priority: N/A

3

Need: Complete Streets

Project Description: Complete streets improvements including multipurpose path, traffic calming, street lighting, etc. Partially complete on the east side of the road.

Jurisdictional Priority: High



Consolidation Process

Example 1 – Multiple Needs on Bluford Ave from Old Winter Garden Rd to SR 50

1

Consolidated Need: Complete Street + Technology

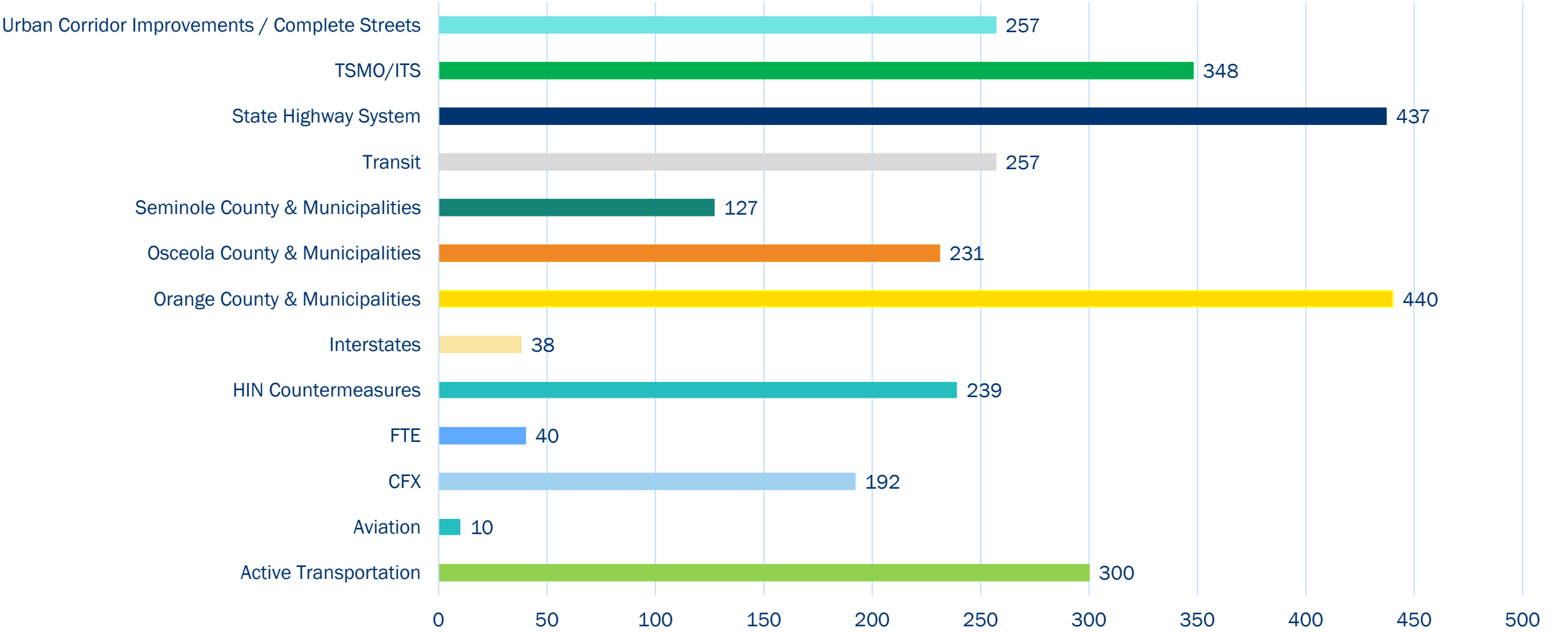
Project Description: Identified improvements include intersection and ITS upgrades to improve safety. Complete Streets improvements including multipurpose path, traffic calming, street lighting, etc. Partially complete on the east side of the road.

Jurisdictional Priority: High



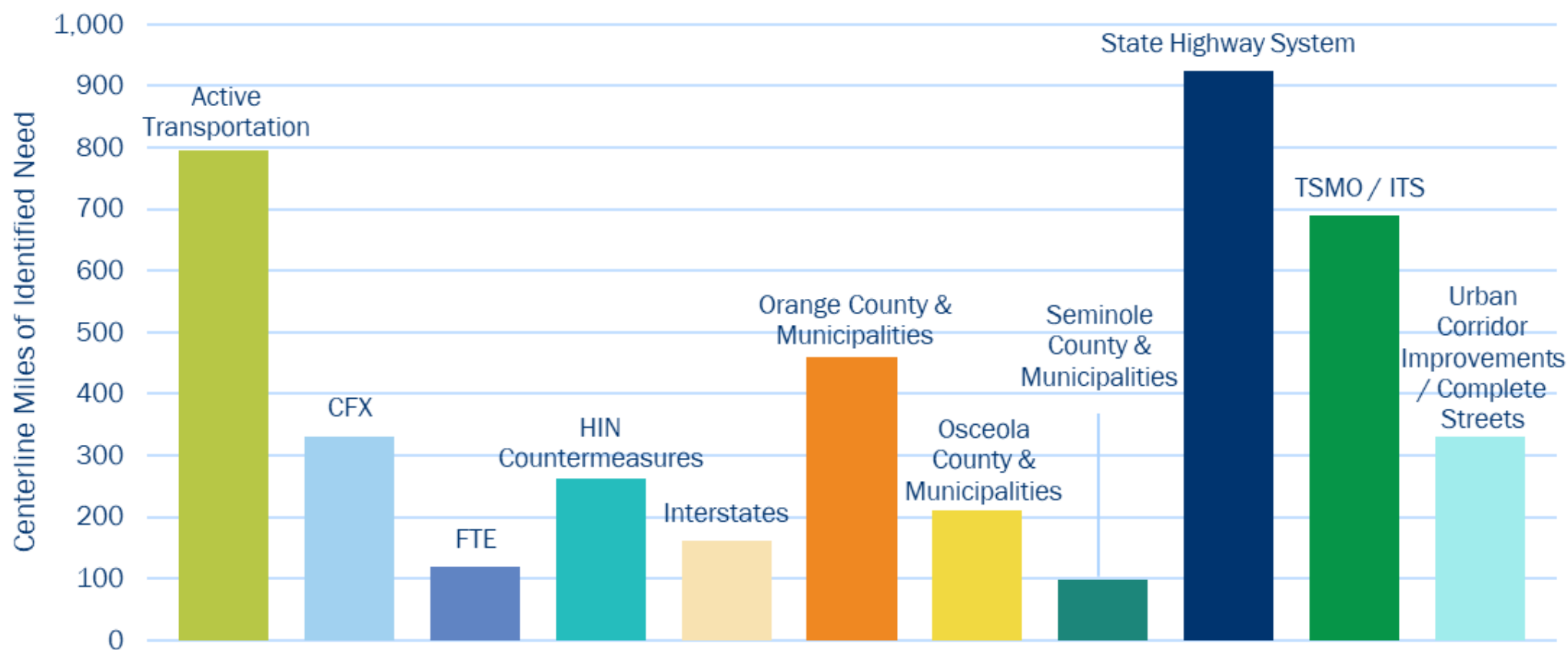


Resulting Needs – by Category





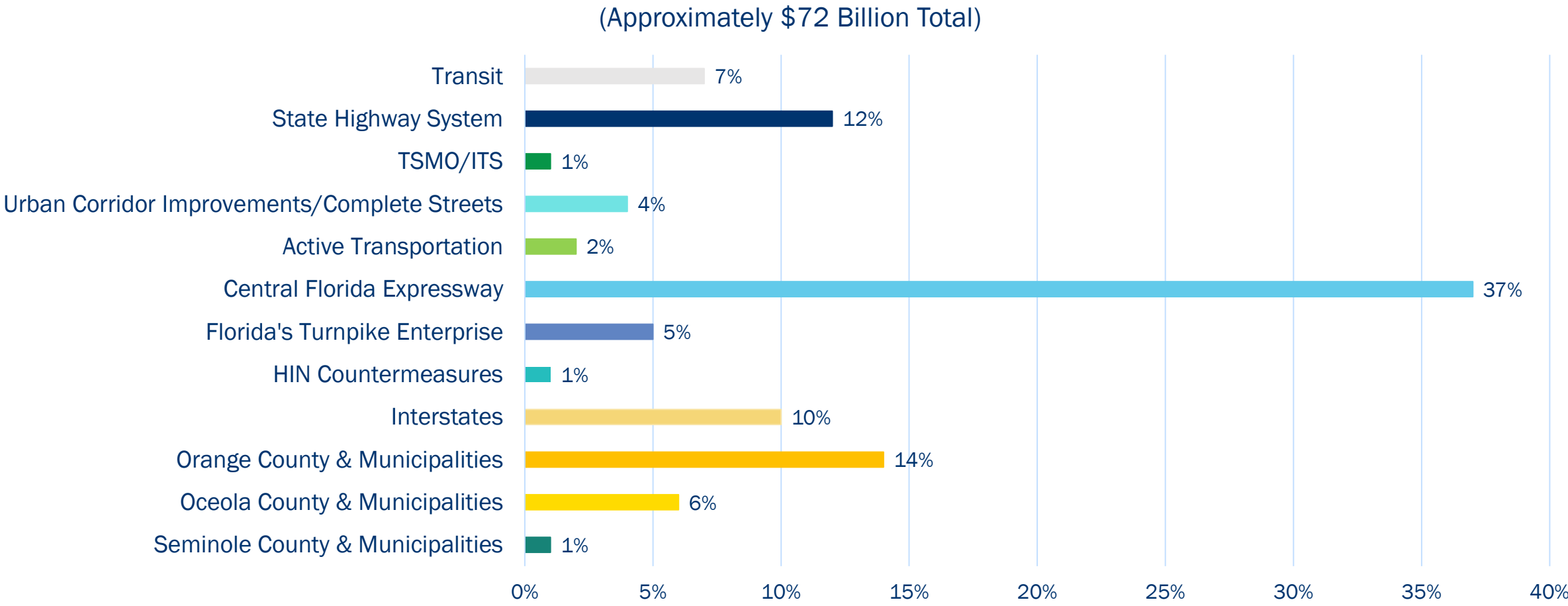
Resulting Needs – by Centerline Miles



Note: Aviation and Regional Transit needs not shown on chart; Aviation mileage unavailable and Regional Transit needs exceed 2,600 miles

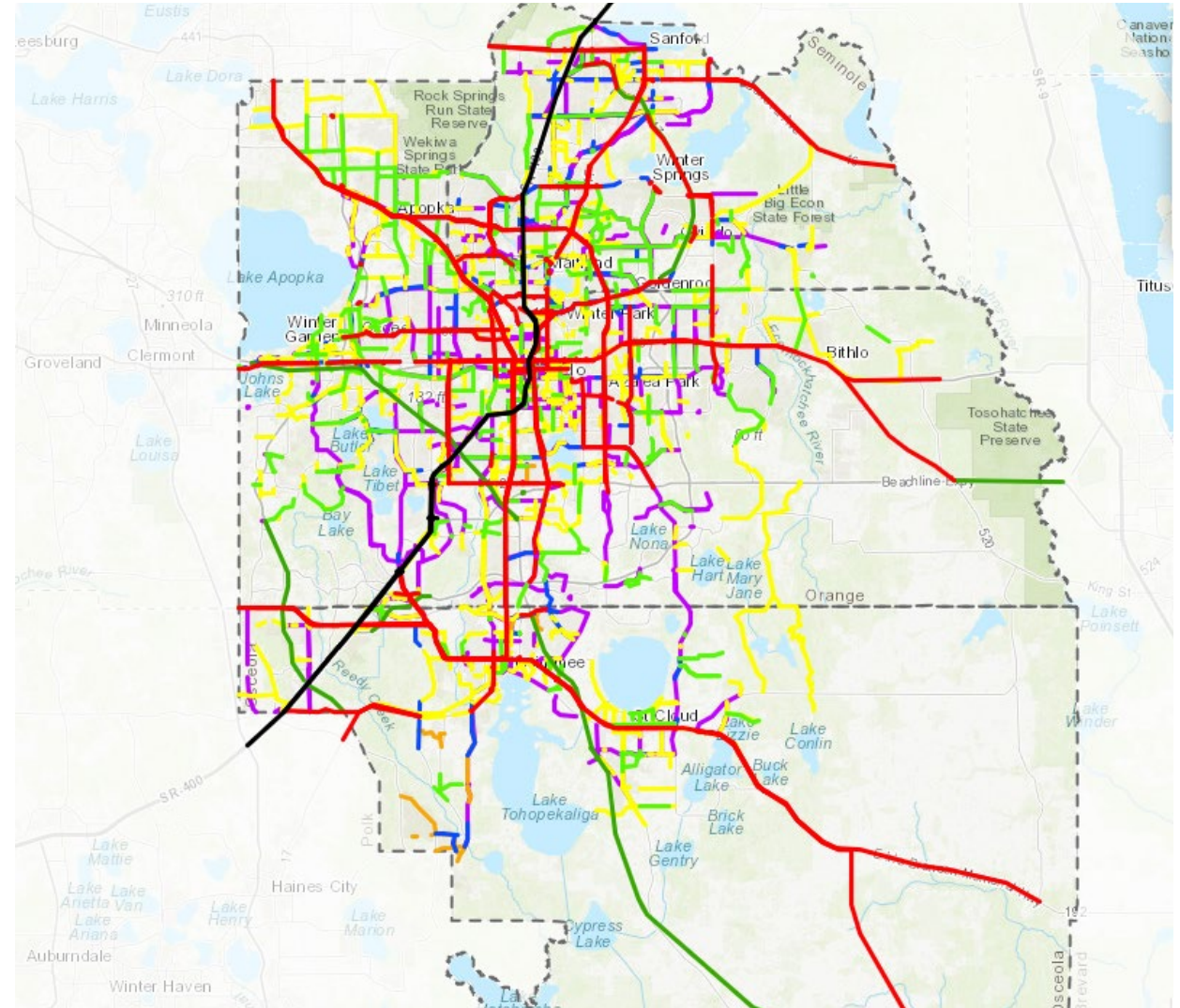


Resulting Needs – by Estimated Project Cost



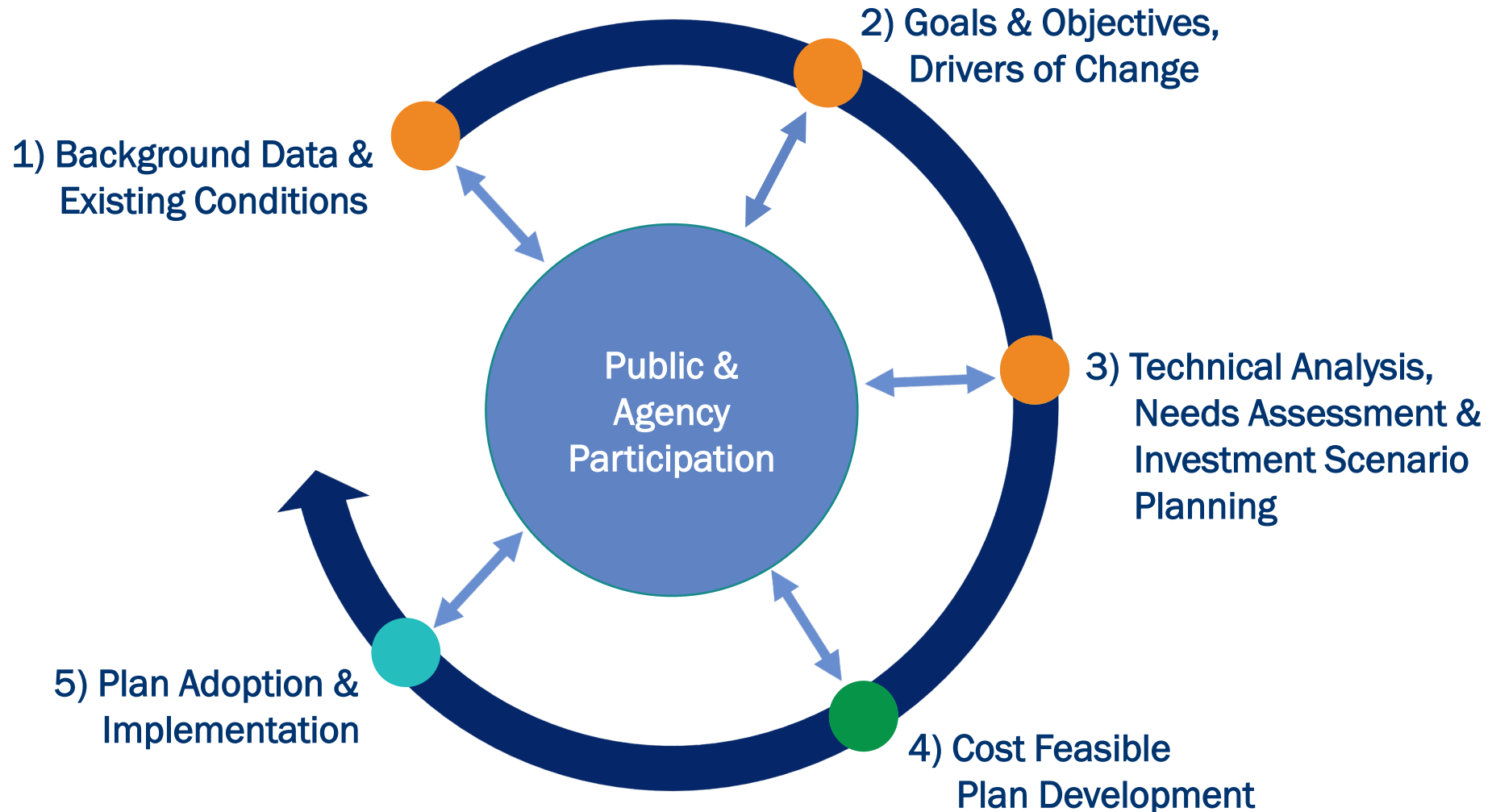
Note: Needs in figure are not fiscally constrained

- Interactive, web-based map tool
- Available at MetroPlanOrlando.gov/2050
- Projects grouped by project type



Project Next Steps

2050 MTP Planning Process (Simplified)



Cost Feasible Plan

Considers & Incorporates All Things



Needs Assessment

Regional transportation issues documented and solutions identified



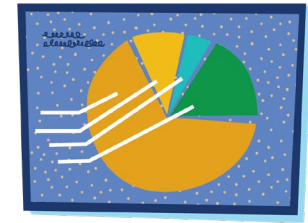
Project Prioritization

Projects evaluated comparatively using a data informed process



Revenue Forecasts

Reasonably available transportation revenues projected



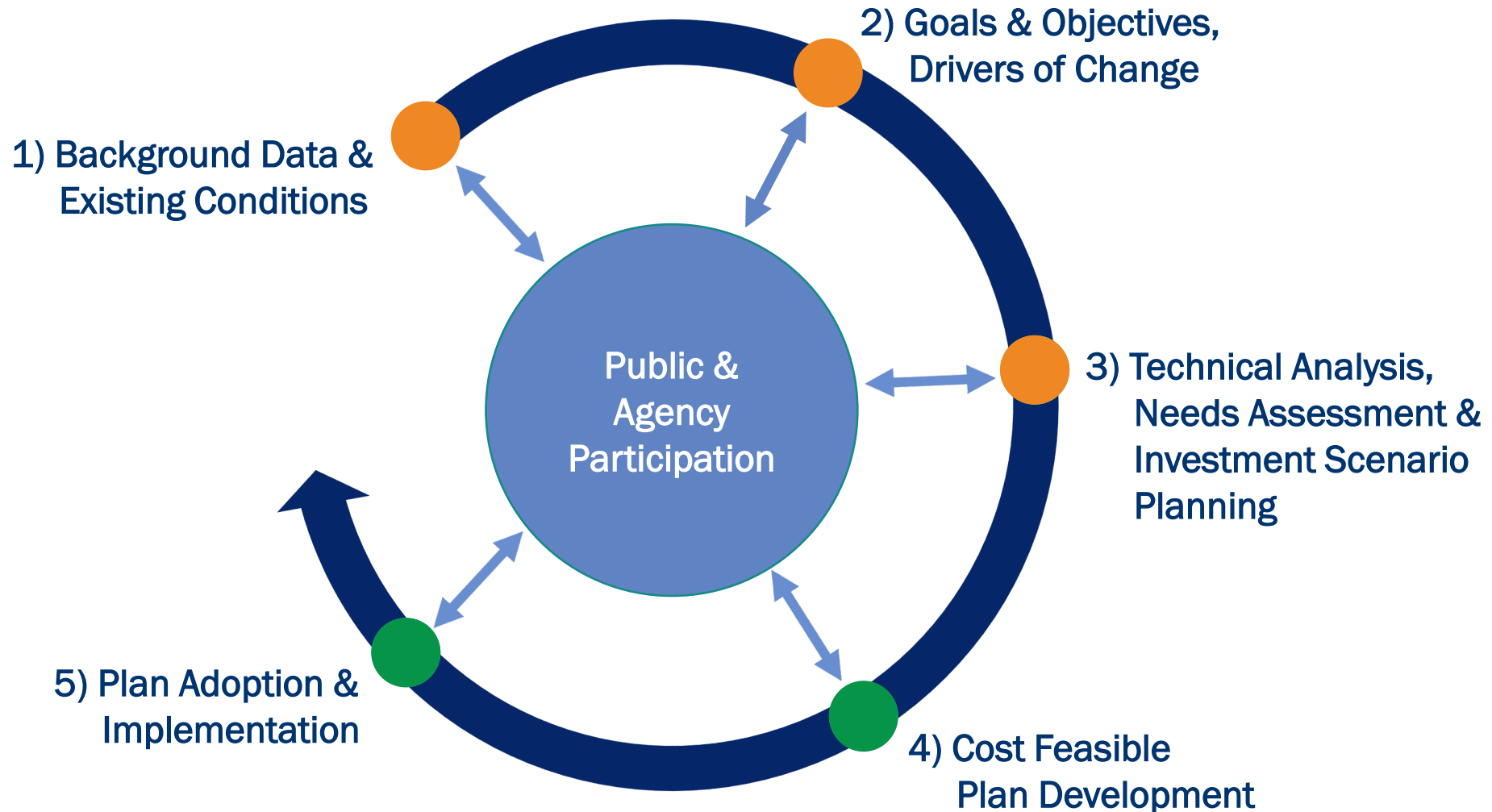
Funding Policy

Guide to spending the limited funding programmatically



Project Next Steps

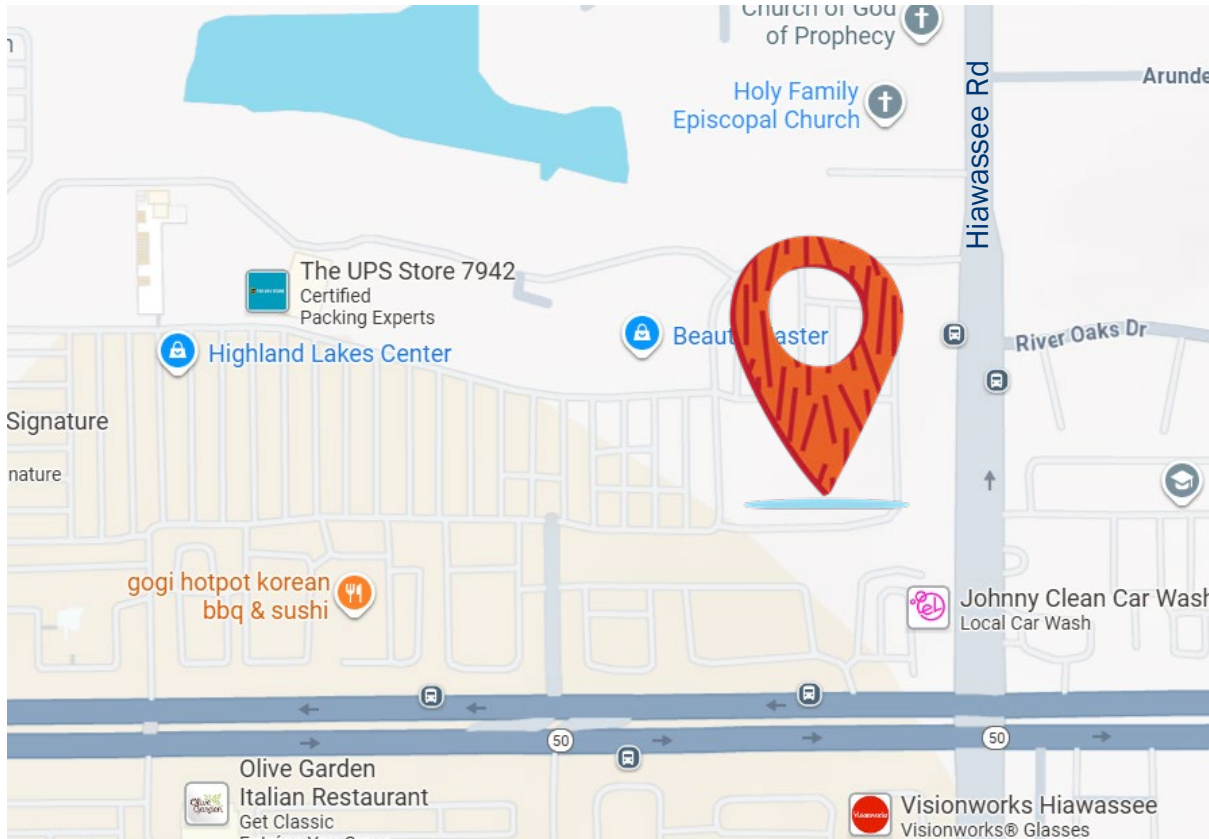
2050 MTP Planning Process (Simplified)





Q&A

Join us! 2050 Metropolitan Transportation Plan Public Meeting



**Monday, September 29, 2025
5:00 pm - 7:00 pm**

**Orange County
Multicultural Center**

**7149 W Colonial Dr
Orlando, FL 32818**

For more information, visit:
MetroPlanOrlando.gov





Thank you for attending

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