FY 2025/26 – 2039/40 Prioritized Project List with Performance Based Planning

Nick Lepp, AICP CTP
Director of Transportation Planning

2040 Long Range Transportation Plan (LRTP)

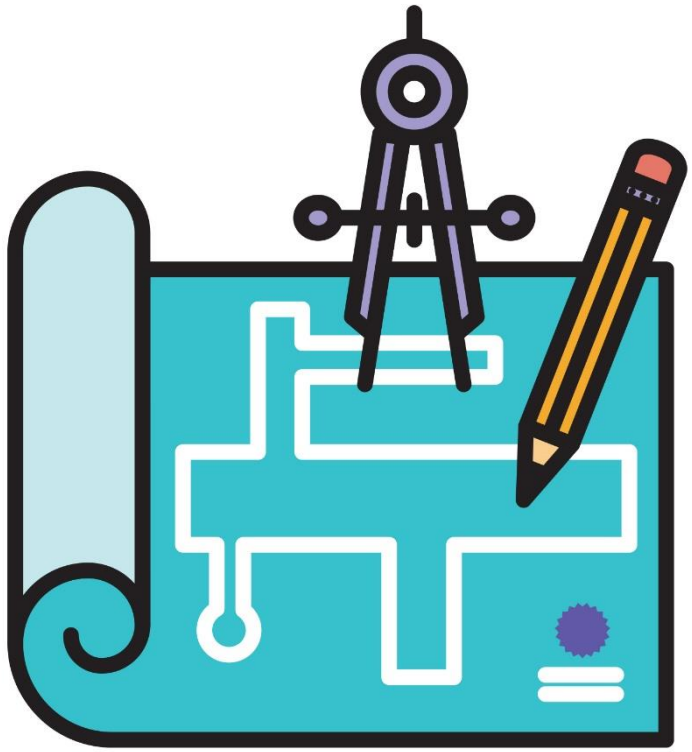
Transportation Improvement Program (TIP)

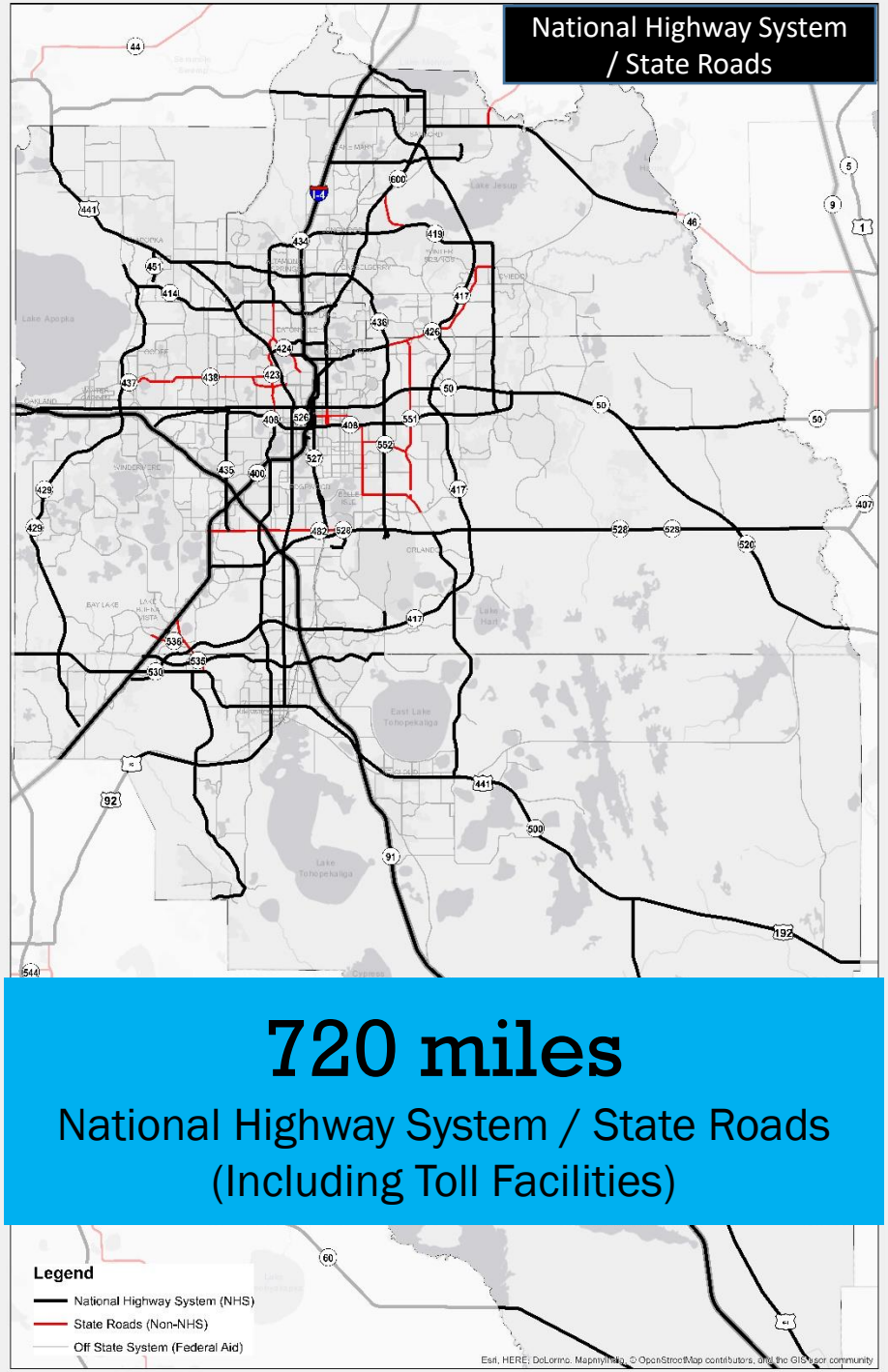
25 years

5 years

FY 2025/26 – 2039/40 Prioritized Project Lists

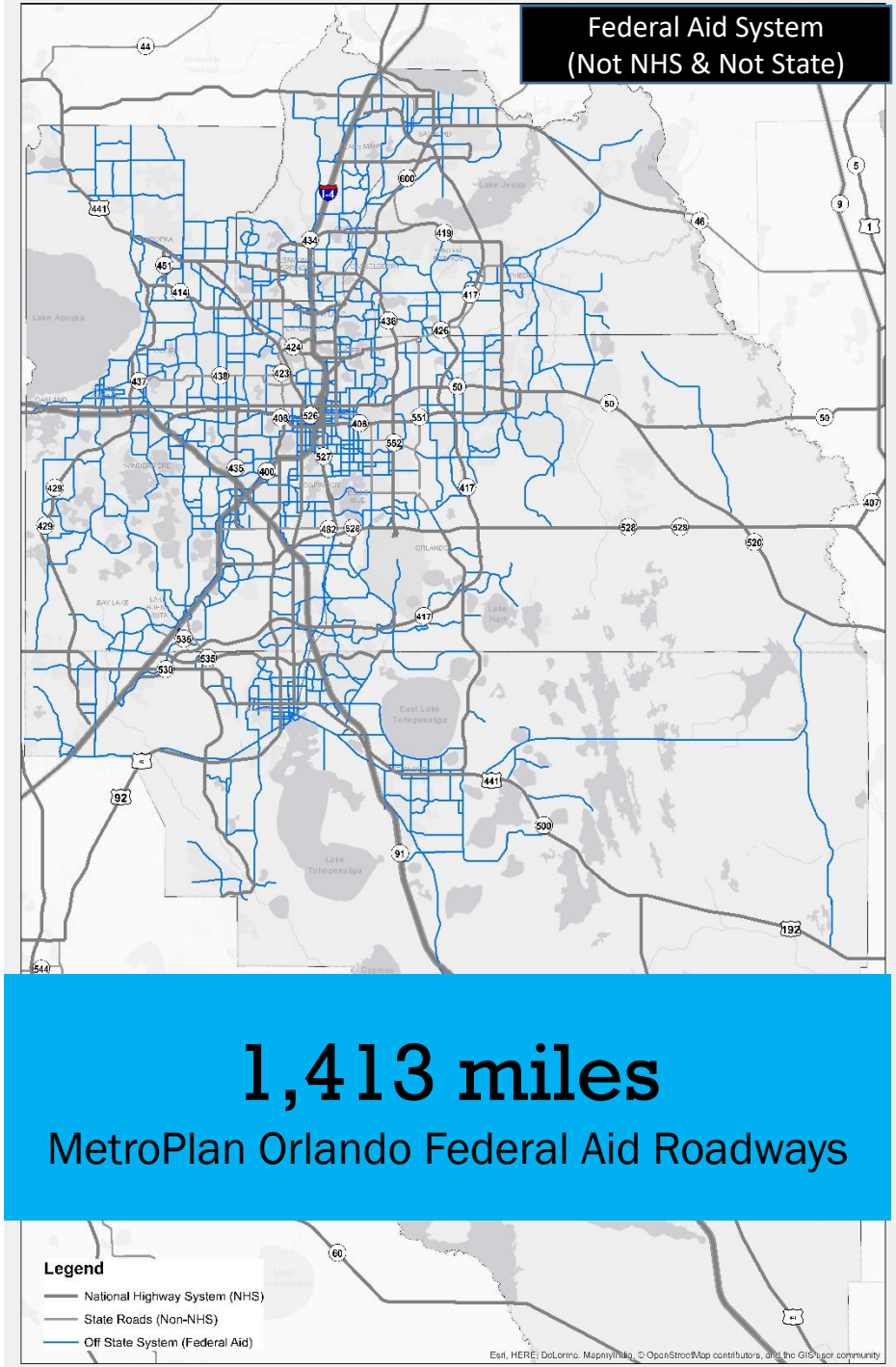
- Direct Linkage to the 2040 Long Range Transportation Plan – Cost Feasible Plan
- Fiscally Constrained from State Financial Forecasts through 2040
- Project Priority List organized to support Regional Priorities and MetroPlan TMA Funding Policies





720 miles

National Highway System / State Roads
(Including Toll Facilities)



1,413 miles

MetroPlan Orlando Federal Aid Roadways

FY 2025/26 – 2039/40 Prioritized Project Lists

- Multiple Priority Lists to allocate Federal & State (with some local) funds to mobility programs and improvements
- National Highway System / State Roads include*
  - Roadway widenings and complete streets improvements
  - Transportation Systems Management & Operations improvements
  - Bicycle, Pedestrian, Safety and SunTrail improvements
- MetroPlan Orlando TMA Funding Policy for all other Federal Aid System facilities
  - 32% - Roadway / Complete Streets
  - 17% Regional Trails / Safe Routes to schools
  - 21% Transportation Systems Management & Operations (TSMO)
  - 30% Transit Capital

**Written authorization is required for the use of MetroPlan TMA funding on a project specific basis. Projects must support Performance Measures and Board Emphasis Areas.*

How Did We Do?

2017/18 **$97 Million (52%)**

2018/19 **$129 Million (69%)**

2019/20 **$151 Million (82%)**

Performance Measures & Target Development

Federal Performance Measures
(National Highway System)

- Safety
- Travel Time Reliability
- Bridge Condition
- Pavement Condition
- Transit Asset Management

MetroPlan Orlando Performance Measures
(all Federal Aid Corridors)

- Evacuation
- Multimodal System
- Accessibility to Attractions / Airport / Convention
- Accessibility to Activity Centers
- Environmental Justice
- Off –Peak Period Congestion
- Air Quality
- Actively Managed Corridors
- Environmental / Storm water Issues

National Highway System / State Roads

- Projects Completed or removed from Project Priority List (PPL)
  - SR 50 from Chuluota to SR 520 – Construction funded for 6 lane widening (not Colonial Pkwy)
  - John Young Pkwy @ Pleasant Hill – Construction funded for interim quad road improvement
  - SR 527/ Orange from Sand Lake Road to Hoffner – Complete Streets improvements with resurfacing
  - 7 other projects removed from PPL because fully funded or no longer cost feasible
- New projects
  - FDOT District 5 Routes of Significance (RoS) – 30 corridors for TSMO strategies and monitoring

MetroPlan Mobility Program

- Projects Completed or removed from Project Priority List (PPL)
  - Edgewater Drive Complete Streets – Fully funded for Construction with MetroPlan TMA funds
  - 17th Street Sidewalks – Locally funded
  - Rouse Road @ University Intersection – Fully Funded for Construction with MetroPlan TMA funds
  - Kissimmee St. Cloud Connector & Pine Hills Trail Phase 2 – Fully Funded for Construction with MetroPlan TMA funds
  - Little Econ Trail Phase 3 & Sandspur Trail – MetroPlan Orlando TMA funds reserved for Construction
- New projects
  - 6 New Complete Street Corridors in Seminole Co., Osceola Co., Longwood & Apopka
  - 17 new TSMO projects from multiple local government partners
  - 3 new Safe Routes to Schools / School Mobility Projects
  - 3 new Regional Trail Projects

Transit Capital Projects

UPDATE – 30% MetroPlan Orlando TMA Policy must have project specific applications for funding

- Projects Completed or removed from Project Priority List (PPL)
  - LYNX Transportation Disadvantaged Phone System
- New projects
  - SunRail Parking Feasibility – Meadow Woods, Tupperware & Poinciana Stations – **MetroPlan TMA funds reserved** for Design in FY 2021/22 & Construction in FY 2023/24.
  - LYNX Transit Corridor Studies (US 17/92, US 441 & Pine Hills / Kirkman Rd)
  - 8 new Transit Asset & Technology Improvements

MetroPlan TRIP List

- Projects Completed or removed from Project Priority List (PPL)
  - None
- New projects
  - 3 New TRIP Candidate widening projects from Osceola Co.
  - 6 New TRIP Candidate widening projects from City of Apopka

Proposed Changes for future Project Priority List

- 2045 Metropolitan Transportation Plan (MTP) will include a performance based planning prioritized list of Cost Feasible Projects reflecting MetroPlan's Funding Policies
  - National Highway / State Roads – Other Arterial Funding with TMA funds by MetroPlan Project Specific Authorization only
  - 20% District Dedicated Revenue Funds (DDR) from the Other Arterials off the top for Premium Transit Operations
  - 10% Other Arterial (non-SIS) funds for off-System projects*
  - Complete Streets, Regional Trails, School Mobility and TSMO – programed with MetroPlan TMA funds off-system*
- Annually that list will be evaluated against performance measures
- Future Project Priority List will be a 10 year list from the MTP Cost Feasible Plan

**MPOs in TMAs can assume all estimated TMA funds and 10% of the FDOT estimates of Non-SIS Highways Construction & ROW funds can be used for "Off-System" roads – Florida Department of Transportation Revenue Forecasting Guidebook, Revenue Forecast Handbook for MPOs – July 3, 2018*

Thank You

250 S. Orange Avenue, Suite 200, Orlando, FL 32801 • 407-481-5672
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A REGIONAL TRANSPORTATION PARTNERSHIP

2045 Metropolitan Transportation Plan
Multimodal Needs Assessment

May / June 2020

Planning Approach

2020-2040 Plans

Needs based on levels of automobile congestion

2045 Plan

Needs and opportunities based on multimodal goals and objectives

2045 Metropolitan Transportation Plan

Multimodal Needs Assessment

- Pedestrian & Bicycle
  - Sidewalks and Crosswalks
  - Low Stress Cycle Opportunities
- Transit
  - Bus and Rail Connections
- Roadways
  - Complete Streets, TSM&O and Freight

Pedestrian & Bicycle Needs Assessment

Pedestrian & Bicycle Needs Assessment

Overview

- Existing Conditions
  - Existing Active Transportation Facilities
  - Gaps (Lack of Facilities)
- Bicycle Needs Assessment
- Pedestrian Needs Assessment

Bicycle Needs Assessment

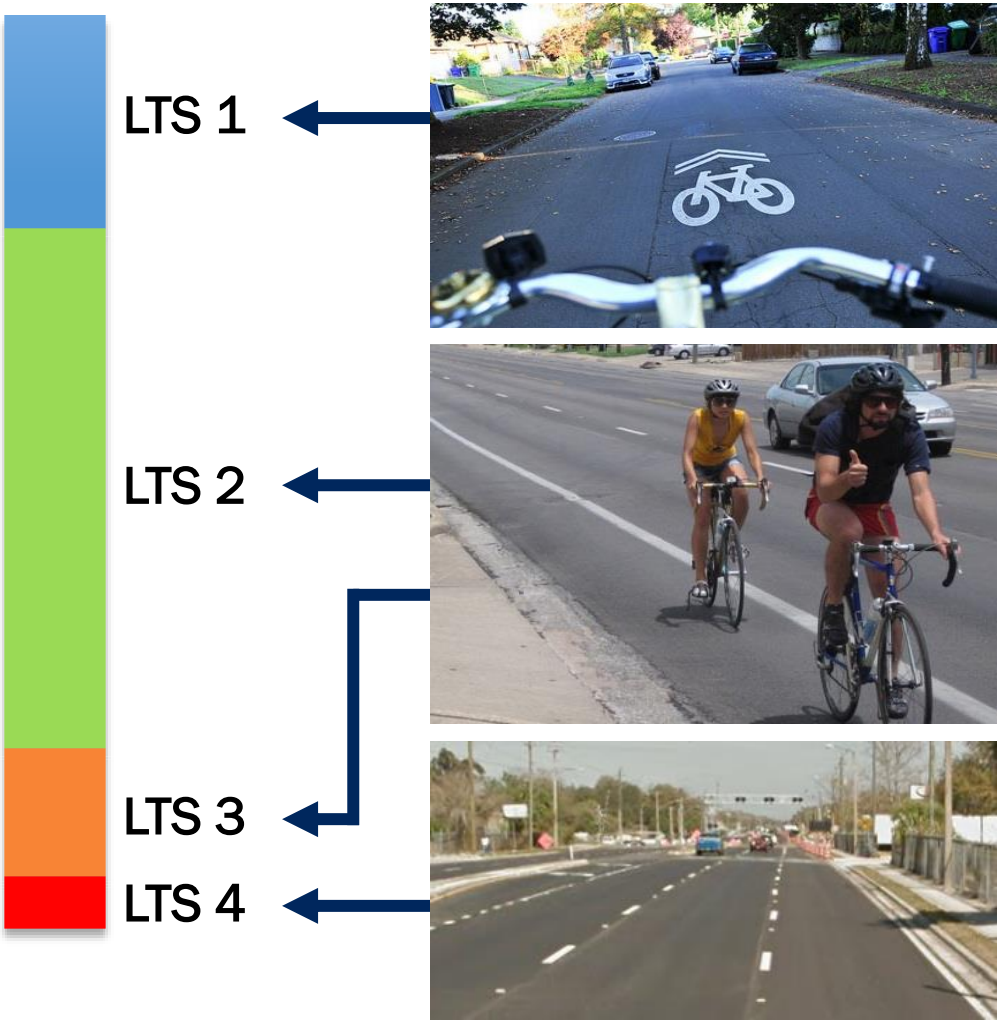
Level of Traffic Stress (LTS)

Scores range from:

LTS 1 & 2:
Comfortable for the general population

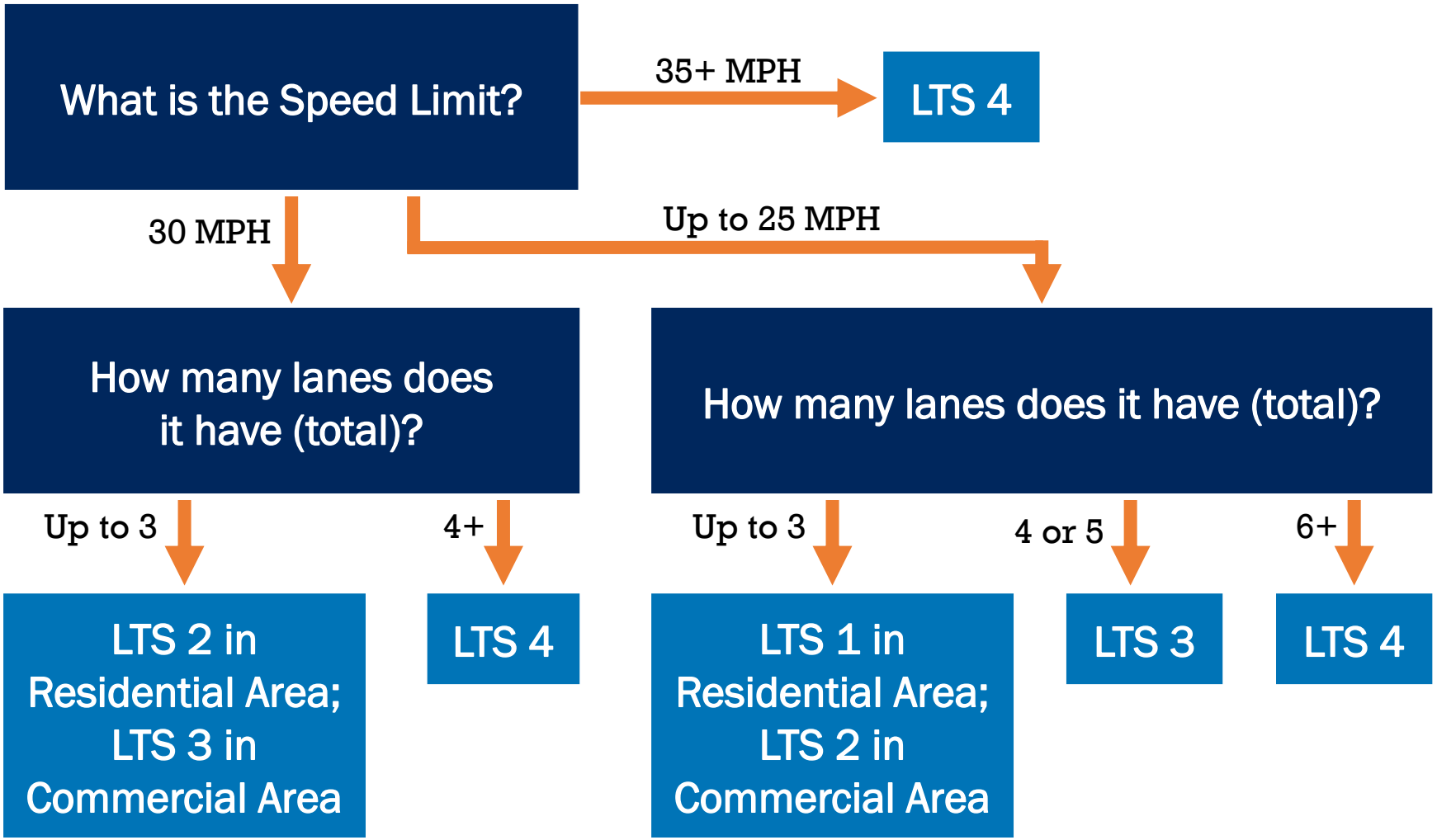
LTS 3:
Comfortable for confident bicyclist

LTS 4:
Uncomfortable for even experienced bicyclist



Bicycle Needs Assessment

Level of Traffic Stress (LTS)



Bicycle Needs Assessment

Why measure Bicycle LTS?

Identifies:

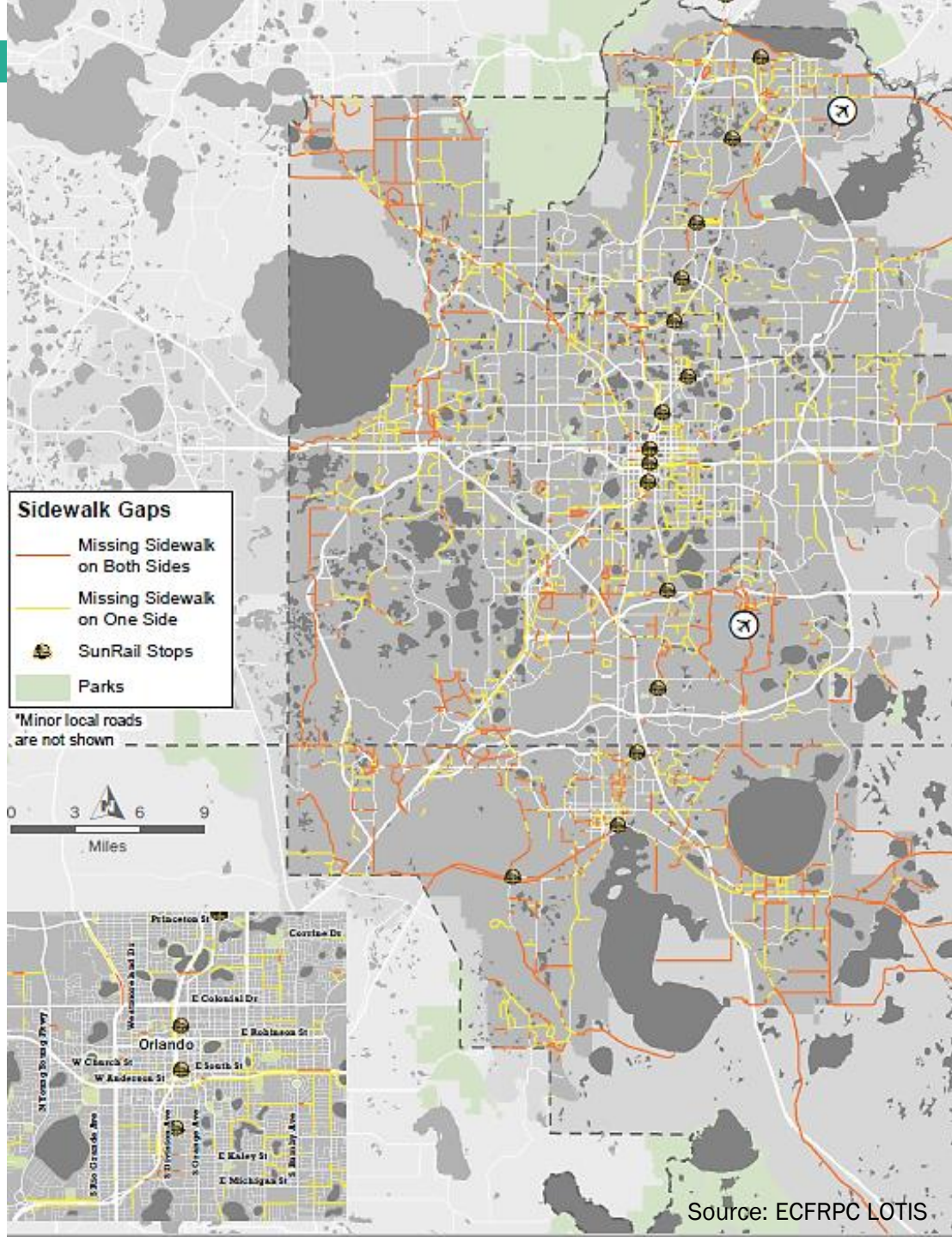
- Bicycle needs and facilities based on roadway context
- Needed projects that leverage existing streets and trails that are already comfortable to bike on

Pedestrian
Needs Assessment

Sidewalk Needs

Assessed based on:

- Functional classification
- Sidewalk presence
- Proximity to transit
- Proximity to schools



Pedestrian Needs Assessment

Crosswalk Needs

Identified potential additional crosswalk locations based on:

- Distance between existing controlled / protected crossings
- Pedestrian & bike crossing crash data

Transit (Bus & Rail) Needs Assessment

Transit Needs Assessment

Approach

- Public participation is critical and frames the entire MTP transit strategy
- Focused on a time horizon of 10 to 15 years
- Aligning planning funds with policy objectives

Transit Needs Assessment

Process

1. Identify Key Issues and Existing Initiatives
2. Develop Solutions
3. Identify + Prioritize: Projects and Programs
4. Develop Implementation Timeline
5. Identify + Analyze: Strategies and Policies

Roadway + TSM&O
Needs Assessment

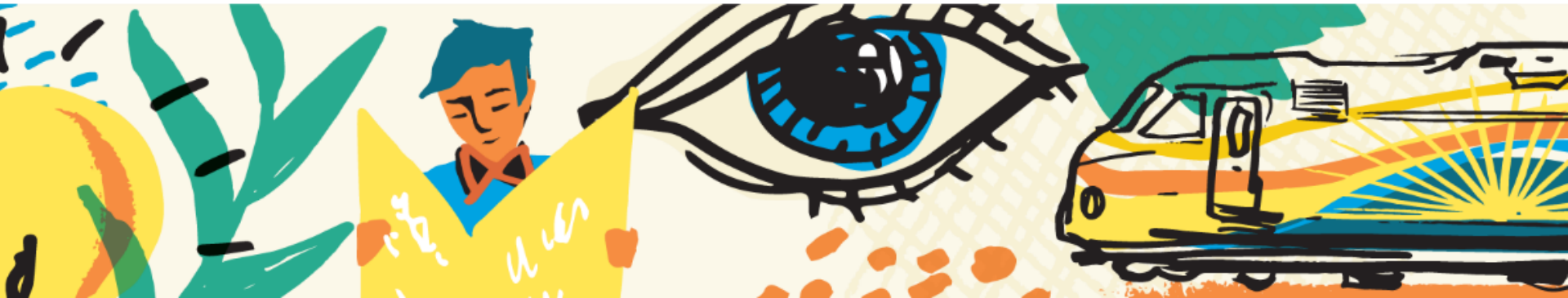
2045 Plan

Roadway Needs Methodology

1.	Goals & Indicators	Aligning Goals and Objectives with Performance Indicators
2.	Needs Assessment	Considering Multimodal Needs and Impacts
3.	Project Identification	Identifying Transportation Projects and Areas of Opportunity
4.	Project Prioritization	Evaluating and Assessing Regional Priority Projects

Step 1

Aligning Goals & Objectives with Performance Indicators



Safety & Security

Preliminary Needs Assessment Criteria

Assessment Criteria

- Crash Rate
- Fatal and Serious Injury Crash Rates
- Number of Pedestrian and Bicycle Crashes
- Evacuation Route Designation

Example Criteria in Use:
Crash Rate

Method:
Conduct analysis of roadway system to determine crash rates per 100 million vehicle miles traveled (VMT)

Logic:
Greater the crash rate, the greater the need, the greater the point allocation

Data Source:
Signal 4 Analytics and FDOT CAR System

Reliability & Performance

Preliminary Needs Assessment Criteria

Assessment Criteria

- Travel Time Reliability for Automobiles
- Travel Time Reliability for Commercial Vehicles
- Presence of Fiber Optics along Roadway Segment
- Segment Actively Monitored and/or Managed
- Relative Change: Future Congested Speeds

Example Criteria in Use:
Relative Change: Future Congested Speeds

Method:
Quantify the difference in speed from the 2015 base model to the 2045 future model

Logic:
Greater the decrease in speed, the greater the need, the greater the point allocation

Data Source:
Central Florida Regional Planning Model v7

Access & Connectivity

Preliminary Needs Assessment Criteria

Assessment Criteria

- Transit System Headways
- Population: ½ Mile of Transit
- Jobs: ½ Mile of Transit
- Food & Healthcare Locations: ½ mile of Corridor
- Cultural & Recreational Locations: ½ Mile of Corridor
- Centrality Analysis Score (Critical Sidewalk Needs)

Example Criteria in Use:
Population within ½ Mile of Transit

Method:
Quantify population within half mile of corridor, then determine if higher populations have access to a transit stop

Logic:
Greater the population with no access to transit, the greater the need, the greater the point allocation

Data Source:
Central Florida Regional Planning Model v7: Socio Economic Data; LYNX Routes

Health & Environment

Preliminary Needs Assessment Criteria

Assessment Criteria

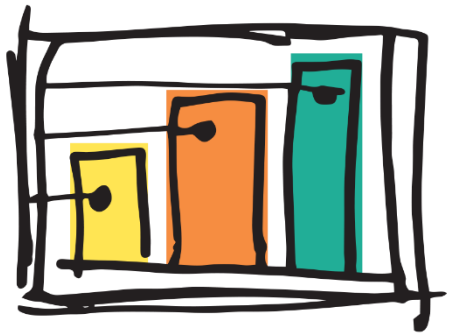
- Bicycle Level of Stress
- Residential Density: ¼ Mile of Multimodal Facility
- Non-Residential Intensity: ¼ Mile of Multimodal Facility
- Public Health Indicator Rates (Asthma, Obesity, Diabetes)
- Intensity of Environmental Justice Populations
- Relative change in Vehicle Miles Traveled

Example Criteria in Use:
Public Health Indicator Rates

Method:
Quantify population with health indicators associated with physical inactivity, then compare to the availability of sidewalks and bike facilities

Logic:
The greater the health risks, the greater the need for ped/bike infrastructure, the greater the point allocation

Data Source:
Healthy Mobility Tool



Investment & Economy

Preliminary Needs Assessment Criteria

Assessment Criteria

- Percentage of Commercial Vehicle Traffic (% Truck)
- Intensity and Proximity to Freight Intensive Land Uses
- Relative change in Vehicle Hours Traveled
- Cost Burdened Households: ¼ Mile of Corridor
- Percentage of Visitor Traffic
- Cost of Congestion

Example Criteria in Use:
Intensity and Proximity to Freight Intensive Land Uses

Method:
Quantify truck trip generating land uses within 1-mile of the corridor

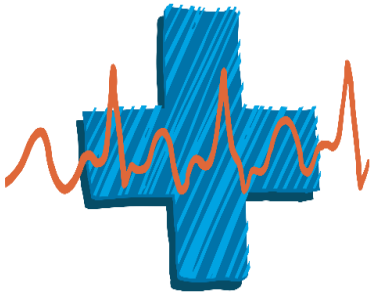
Logic:
The greater the freight intensity, the greater the roadway need, the greater the point allocation

Data Source:
Central Florida Regional Planning Model v7: Socio-Economic Data

Step 2

Multimodal Needs Assessment

Step 2: Developing Needs



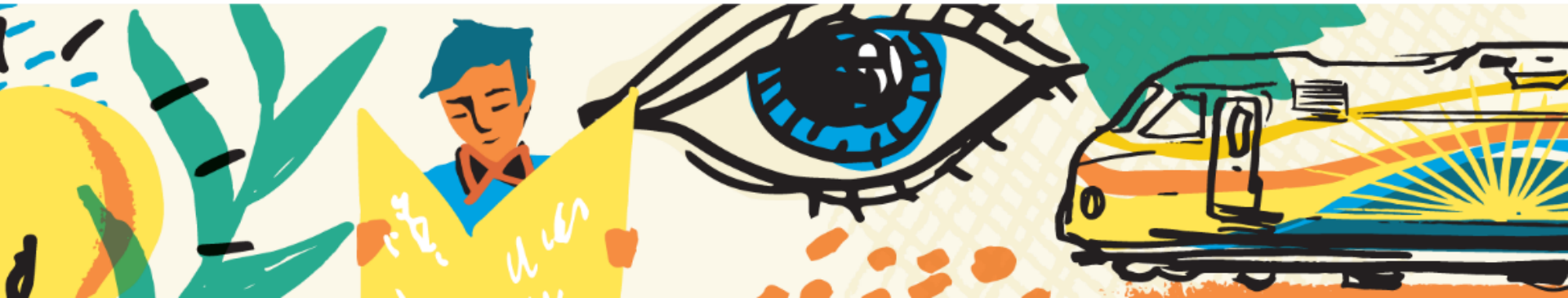
Data Model & Healthy Mobility Tool

Existing Plans Review

Scenario Comparisons

Step 3

Project Identification



Step 3: Project Identification

National Highway System & State Roads

Cost feasible and major capacity projects

Multimodal System Roadway & Complete Streets

Non-capacity multimodal context sensitive projects

Multimodal System TSM&O Projects

Operational improvements and technology solutions

Regional Trail & Safe Routes to School Projects

Trail projects and improvements to promote bicycle and pedestrian safety

Transit Projects

Premium projects which provide higher comfort, capacity and frequency

Step 4

Project Prioritization

Step 4: Prioritization

- Corridors ranked based on cumulative regional performance
- Coordination with local governments and transportation agencies
- Review of funded phases in Transportation Improvement Program

Questions?

MetroPlanOrlando.org/2045

250 South Orange Avenue, Suite 200 | Orlando, Florida 32801

LYNX Bus Fleet

Presented to MetroPlan Orlando

May – June, 2020

Agenda

- Vehicle Fleet
- LYNX Board Fleet Decisions
- Fleet Propulsion Transition
- CNG Fleet Transition
- Electric Fleet Transition

Vehicle Fleet


Fixed Route

FastLink

LYMMO

NeighborLink


ACCESS LYNX

Road Ranger

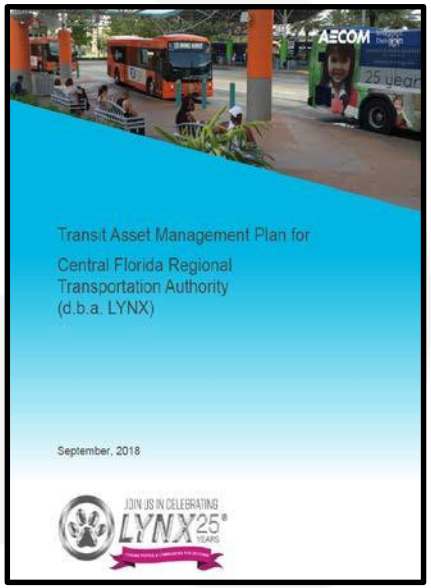

VanPool

LYNX Board Fleet Decisions

The LYNX Board of Directors fleet decisions are informed by several plans:

Fleet Management Program

Transit Development Plan (TDP)



Transit Asset Management (TAM) Plan

Transportation Disadvantaged Service Plan (TDSP)

Fleet Propulsion Transition

Fleet Management Program

Fixed Route Buses

(Plan results in a mixed fleet: 50% CNG / 50% Electric Bus)

Transition of Fuel Type 2019 to 2028

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Gasoline*	3	3	3	3	3	3	3	3	0	0
Diesel/Clean Diesel	166	133	85	60	60	29	9	0	0	0
Hybrid (Diesel / Electric)	36	36	36	36	36	36	20	18	10	0
CNG/Electric	96	129	177	202	202	233	269	280	291	301
Total	301	301	301	301	301	301	301	301	301	301

* Gasoline cutaway mini buses utilized on the Kissimmee circulator

Fleet Propulsion Transition

Anticipated Mix

Fixed Route Buses – Anticipated Mix

(Plan results in a mixed fleet: 50% CNG / 50% Electric Bus)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Gasoline	3	3	3	3	3	3	3	3	0	0
Diesel/Clean Diesel	166	125	85	60	60	29	9	0	0	0
Hybrid (Diesel / Electric)	36	36	36	36	36	36	20	18	10	0
CNG	96	129	150	151	151	151	151	151	151	151
Electric	0	8*	27	51	51	82	118	129	140	150
Total	301	293	301	301	301	301	301	301	301	301

* Low No Grant award supported 2020 Electric Bus purchase

CNG Fleet Transition

Low Emission

CNG Fueling Facility	CNG Low Emission Buses
Nation's Largest Public/Private Compressed Natural Gas Fueling Facility in Orlando	Annual Bus Purchases
• Developed by Florida's leading compressed natural gas (CNG) fueling infrastructure provider - Nopetro	• Purchase of between 25 and 35 - 40' and 60' CNG buses annually dependent on funding
• Fueling infrastructure • LYNX maintenance facility improvements • Diesel to CNG bus fleet conversion • Revenue sharing component	• 95 CNG buses currently operating • 129 buses in service by end of calendar 2020.
April 2016	Annually

Electric Fleet Transition

No Emission

First Bus Pilot (BRT)	Seven Bus LYMMO Expansion (BRT)	Six Bus LYMMO Expansion (BRT)	Fixed Route Fleet Expansion
Purchase initial charging infrastructure and first Battery Electric Bus	Add charging for up to eight (8) LYMMO buses, purchase seven (7) Battery Electric Buses	Expand charging facilities to accommodate full LYMMO bus fleet	Transition up to half the fixed route fleet to Battery Electric Buses through replacement of retiring buses
• Verify range and hours of operation • Work with OUC to develop efficient and cost effective bus charging plan • Provide "seed" for future grant funding requests	• Expand charging capability to half the LYMMO bus fleet • Fully transition LYMMO Grapefruit and Lime lines to Battery Electric buses • Work with OUC to support additional electricity demand	• Expand charging facilities to accommodate full LYMMO bus fleet • Transition remaining LYMMO fleet to Battery Electric buses (all LYMMO Links) • Continue to work with OUC to support additional electricity demand	• Expand charging facilities for up to 150 buses • Continue to work with utilities to support electricity demand • Add charging facilities at each operations center
FTA LYMMO Grant Funding	FTA Section 5339 Low-No Emission Grant Award	FTA Section 5339 Buses and Bus Facilities Program (requested)	FTA Bus Funding
Summer 2020	Winter 2020	Approximately Winter 2021 (If grant award received)	2022 through 2028

Battery Electric Bus

Plug-In, Proterra

Update Functional Classification for Wekiva Parkway (Tab 3)

Wekiva Parkway Functional Classification Request

SR 429 – 75330000

SR 453 - 75350000

Steve Shams, AICP
SRD Engineers, Inc., FDOT In-House Consultant

FDOT.D5

Justification for Request

- **Summary**
  - Segments of Wekiva Parkway (SR 429 and SR 453) completed construction in March 2018.
  - Segments were added to RCI and LRS in 2019:
    - SR 429
      - Begin: Connector Rd Bridge
      - End: Lake County Line
    - SR 453
      - Begin: SR 429
      - End: Lake County Line

- **Reason**
  - Proposed Functional Classification of Urban Principal Arterial – Freeways and Expressways:
    - Within Urban Boundary
    - Limited Access Principal Arterial
    - Tolls exist
  - FDOT Central Office Support
  - Statutory Requirements

Proposed Context Classifications