metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

2050 Metropolitan Transportation Plan

Technical Report | Transit Vision Master Plan

December 15, 2025

Final

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1 Introduction

The MetroPlan Orlando Transit Vision Master Plan is a guide to public transportation in Central Florida for the next 25 years. It was created in partnership with regional transit authorities such as the Central Florida Regional Transit Authority (d/b/a LYNX) and the Central Florida Regional Commuter Rail (SunRail) as well as private transit entities, and local stakeholders. This document is the shared vision that will guide future transit-related investments and initiatives.

The MetroPlan Orlando region, which includes Orange, Osceola, and Seminole counties, continues to be one of the fastest-growing regions in the United States and one of the most visited places in the world. As our communities grow, so too must our transit infrastructure to meet the evolving needs of residents, commuters, and visitors alike. Our region's infrastructure is maturing, with roads widening to their maximum capacity, and so we must look at other ways to meet the transportation needs of traveling public, with one of those solutions being transit.

Based on the coordination with local partner agencies and plans, a series of transit needs were developed for the region. A snapshot of these needs include:

- 8 bus rapid transit (BRT) corridors,
- 5 enhanced bus corridors,
- 3 park and ride facilities
- 32 expanded or new transit centers
- 28 high-frequency, local stop, and limited stop routes
- 17 regional and commuter express routes,
- 44 primary and secondary local stop routes,
- 37 community/circulator routes and on-demand/flexible services,
- rail extension to the Orlando International Airport,
- other rail extensions throughout the region,
- double-tracking the entire SunRail corridor, and
- service improvements to increase service frequency and add more service hours.

These needs do not come without challenges. First, funding remains a significant challenge. The funds provided today are sufficient for current service levels, so for any significant service enhancement to occur, new local resources will be required. Other challenges include that much of the region's current densities and development patterns are not amenable to public transit use, highlighting the need for strategic urban planning initiatives to increase in-fill densities near stations and key corridors. Additionally, as most transit users are pedestrians at some point in their trip, improvements to places lacking sidewalks and crossings should be a priority to make riders feel more comfortable and safer. Some opportunities include emerging mobility options such as micromobility and autonomous vehicles, streamlining operations across providers including fare collection and schedules, and aligning services with the needs of service industry workers.

As we look ahead to 2050, the Transit Vision Master Plan will serve as the transit element of the 2050 Metropolitan Transportation Plan (2050 MTP), providing essential insights and recommendations on transit projects that will be directly incorporated into the long-range plan for the region. Through its successful completion, the projects outlined here will not only chart a course for the evolution of public transit, but also foster alignment with the broader goals of sustainable development and community well-being.

1.1 REPORT CONTENT

The Transit Vision Master Plan is organized into nine sections as outlined below:

Data and Existing Conditions Summary - This section provides an overview of transit services within the MetroPlan Orlando region. It details the services offered by SunRail and LYNX, the people and jobs served, operational statistics, and service types.

Key Challenges and Opportunities – This section discusses critical hurdles and potential pathways for growth within the region by identifying opportunities and challenges faced by regional transit agencies.

Transit Oriented Development – An opportunity for transit-oriented development around SunRail stations is discussed in this section.

Existing Plan Highlights – This section highlights the key findings from the existing transit plans, including the LYNX Transit Development Plan and county-specific transit plans.

Transit Options – A comprehensive overview of the diverse range of transit services available within the MetroPlan Orlando region is presented in this section. The distinct features and operational characteristics of each service category are also discussed.

Bus System Needs – This section identifies all capital and bus system improvements per the LYNX Transit Development Plan and the county plans, including a financial and implementation plan for short, mid, and long-term improvements.

Rail System Needs – Identifies all service improvements and expansion plans for SunRail, which includes a financial and implementation plan.

The Future of Transit – This section touches base with emerging trends in transit technology that can affect future ridership.

Transit Investments – Existing funding sources for transit in the region, as well as an exploration of possible funding from federal and state sources are presented in this section.

2 Data and Existing Conditions Summary

This section provides a thorough exploration of the transit services currently available within the MetroPlan Orlando region. It includes details of transit services offered by LYNX and SunRail, and the demographics served by these transit services. Additionally, it provides a review of existing transit related plans, such as the LYNX Transit Development Plan (TDP) and county-specific transit plans.

2.1 EXISTING TRANSIT SERVICE

2.1.1 LYNX

LYNX is the Central Florida Regional Transportation Authority, which operates public transit services in Orange, Osceola, and Seminole counties. LYNX began operation in the Central Florida region in May of 1972 under the name Orange Seminole Osceola Transportation Authority (OSOTA). It later became Tri-County Transit in 1984 and transitioned to LYNX in 1992. The official name was changed to Central Florida Regional Transportation Authority (CFRTA) in March of 1994.

Services offered by LYNX include:

- Fixed-route bus service
- Fare-free services in Downtown Orlando (LYMMO
- Limited stop service (FastLink)
- Flex-route services (NeighborLink) in the outlying areas
- Complementary paratransit service throughout the LYNX service area (ACCESS LYNX)
- Commuter and agency vanpool programs.

LYNX also provides regional connectivity to transit services in Lake and Polk Counties. LYNX serves approximately 2,540 square miles with about 2.2 million residents within the service area. Out of this population, approximately 67% of residents live within a quarter mile of a transit stop. It also provides services to about 50% of jobs in the service area. Table 2-1 outlines the demographics served by the system.

Table 2-1 | Demographics within Catchment Area of LYNX Service

Distance	Population	Jobs	Low-Income Population	Zero-Vehicle Households	Minority Population
Metro area	2,292,469	1,157,115	1,753,909	38,335	1,375,441
0.25 miles around stops	1,536,507	580,503	1,114,317	32,611	1,035,284
% of metro area	67.02%	50.17%	63.53%	85.07%	75.27%

Source: ACS 2022

LYNX has an existing transit network consisting of 76 bus routes (also referred to as “links”): 64 fixed-route Links and 12 on-demand NeighborLink. The service types include high frequency local bus, regional express, primary local, secondary local, community/circulator bus, and NeighborLink with over 350 fixed-route buses, over 150 paratransit vehicles, and over 4,300 transit stops; one-third of which have bus shelters. Table 2-2, Table 2-3 and Table 2-4 provide an overview of the operating statistics of different service types. Table 2-5 presents fare revenue and farebox recovery

Table 2-2 | LYNX Bus Operating Statistics

Operating Statistics	Value
Peak Vehicles	256
Vehicle Revenue Miles	15,205,750
Vehicle Revenue Hours	1,123,155
Unlinked Passenger Trips	17,429,273
Operating Expense	$137,948,879
Cost Per Hour	$123

Source: LYNX FY 2023

Table 2-3 | LYNX NeighborlLink Operating Statistics

Operating Statistics	Value
Peak Vehicles	15
Vehicle Revenue Miles	355,390
Vehicle Revenue Hours	34,450
Unlinked Passenger Trips	66,143
Operating Expense	$3,019,408
Cost Per Hour	$88

Source: LYNX FY 2023

Table 2-4 | LYNX Demand Response Operating Statistics

Operating Statistics	Value
Peak Vehicles	163
Vehicle Revenue Miles	7,798,777
Vehicle Revenue Hours	520,728
Unlinked Passenger Trips	668,895
Operating Expense	$36,096,972
Cost Per Hour	$69

Source: LYNX FY 2023

Table 2-5| Fare Revenue and Recovery

Operating Statistics	Value
Fare Revenue	$18,367,662
Farebox Recovery	9.5%

Source: LYNX FY 2023

2.1.2 SUNRAIL

SunRail commuter rail service currently runs from DeBary in Volusia County, through Seminole and Orange Counties, to Poinciana Boulevard in Osceola County with over 49 miles of track and 16 stations (Figure 2-1). Phase 2 North is a segment which would extend commuter rail service an additional 12 miles from the DeBary SunRail station to the DeLand Amtrak station in Volusia County and began revenue service in summer 2024. There are currently eight commuter rail stations in Orange County, three in Osceola County, four in Seminole County, and one in Volusia County.

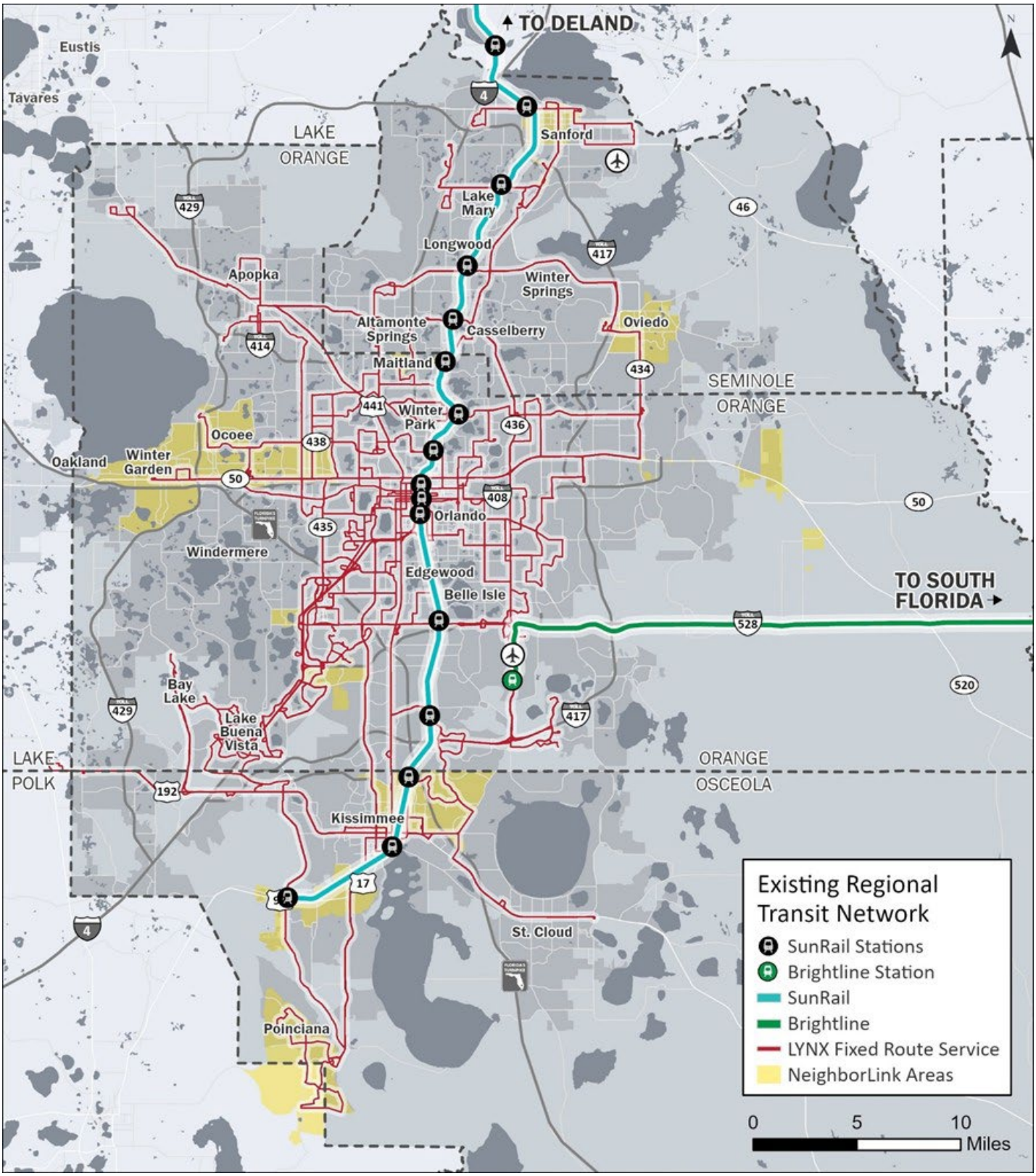
At present, SunRail operates during weekdays, and service is generally from 5:00 AM to 11:30 PM. Occasional weekend service is provided, typically coinciding with large public events near stations, such as festivals in downtown Orlando or events at the Kia Center. The headways are generally 30 minutes in the AM and PM peak hours and 60 to 120 minutes during the off peak, midday, and evenings. At the time of writing this document, SunRail is operated by the Florida Department of Transportation (FDOT) but will begin transition to the local funding partners as of December 31, 2024. Table 2-6 presents the operating statistics of SunRail for FY-2023.

Table 2-6 | SunRail Operating Statistics

Operating Statistics	Value
Vehicles Operated in Maximum Service (VOMS)	21
Total actual train revenue miles	479,643
Total actual train revenue hours	17,332
Total actual passenger car revenue miles	970,184
Total actual passenger car revenue hours	34,664
Unlinked Passenger Trips (UPTs)	1,001,878
Passenger miles travelled	16,823,179
Operating Expense	$66,113,166
Farebox Recovery	3.1%

Source: SunRail FY-2023 NTD Reports

Figure 2-1 | Existing Regional Network



Source: LYNX & SunRail GTFS 2025

2.1.3 INTERCITY BUS PROVIDERS

Brightline

Brightline is a privately owned and operated intercity passenger railroad operating between Central (Orlando) and South Florida (Miami). It started operating in January 2018, initially between Fort Lauderdale and West Palm Beach; the Miami to Fort Lauderdale segment began revenue service in May 2018. Infill stations at Aventura and Boca Raton opened in December 2022, and the West Palm Beach to Orlando segment began revenue service in September 2023. Future expansions include a new infill station in Stuart, which is slated to open at the end of 2026, as well as an extension to Tampa.

Amtrak

Amtrak is the national passenger railroad company of the United States. It operates intercity rail service in 46 of the 48 contiguous U.S. states and three Canadian provinces. In the Central Florida region, it provides services through stations in Sanford, Winter Park, Orlando, and Kissimmee. The Silver Service line provides a connection to Tampa (through which travel to Miami is possible) and north to South Carolina, Washington, D.C., and New York. The Auto Train (boarding in Sanford) allows riders to transport their vehicles to auto train stations in the D.C. area.

Sanford Trolley

The City of Sanford's Community Redevelopment Agency (CRA) provides a free downtown trolley service. The Sanford trolley provides transportation between the Sanford SunRail station and downtown Sanford.

I-Ride Trolley

The I-Ride Trolley is a fixed-route service operated by the I-Drive Improvement District in Orange County.

- The Red Line Trolley transportation route services the International Drive both north and southbound. Red Line trolleys arrive approximately every 20 minutes.
- The Green Line Trolley transportation route is the counterpart to the Red Line Trolley route, beginning service in the Major Boulevard business district, it travels along Universal Boulevard and then shadows the Red Line Trolley Route on South International Drive. Green Line trolleys arrive approximately every 60 minutes.

Intercity Bus Providers

Other intercity bus providers operate in the MetroPlan Orlando region including Greyhound, RedCoach, MegaBus, Jet Set Express, SuperTours, GMG Transport and other shuttle services. Also, many of the tourist destination provide direct shuttle services from the Orlando Internation Internal Airport to their sites.

2.2 TRANSIT PROPENSITY INDEX

Different demographic groups have a different propensity to use transit. The purpose of a transit propensity analysis is to determine the extent to which certain demographic groups are more or less likely to use transit, and where those groups cluster. A Transit Propensity Index (TPI) is calculated to determine markets with the most potential demand for transit services. Weights for transit propensity are customized based on existing transit commuters. In other words, transit propensity is customized to match the transportation choices of the local community.

2.2.1 TRANSIT PROPENSITY BY DEMOGRAPHICS

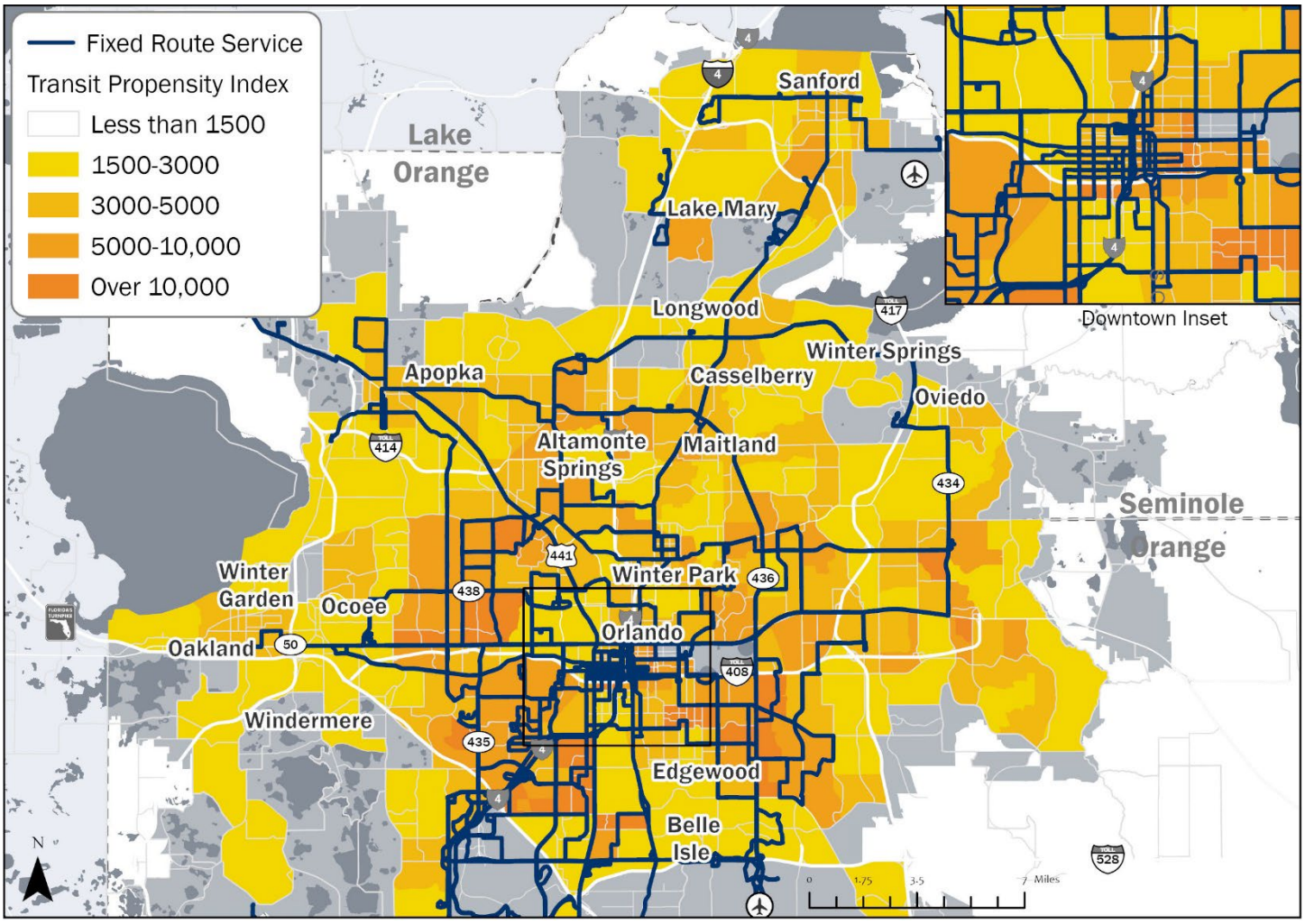
The Transit Propensity Index is a composite score of the population density, and other socio-economic factors such as race, vehicle availability, tenure, industry in which the resident works, and income. A transit propensity score that is more than one indicates a higher propensity to use transit than average while a score below one represents a lower propensity. The demographic group with the highest transit propensity are people living in households without vehicles, followed by people who are Black or African American, and then people who live in rented units. People in agriculture related jobs, residents living in households with two or more vehicles, and people who are White have the lowest likelihood to use transit.

2.2.2 TRANSIT PROPENSITY BY CENSUS TRACTS

The transit propensity by census tract was also analyzed to identify specific areas in the region that are most likely to use transit. Most of the areas with a concentration of population with a higher public transportation need are within Orange County, and a few others in Seminole and Osceola Counties (see Figure 2-2 and Figure 2-3). Specifically, some of the locations that show the greatest need for transit are:

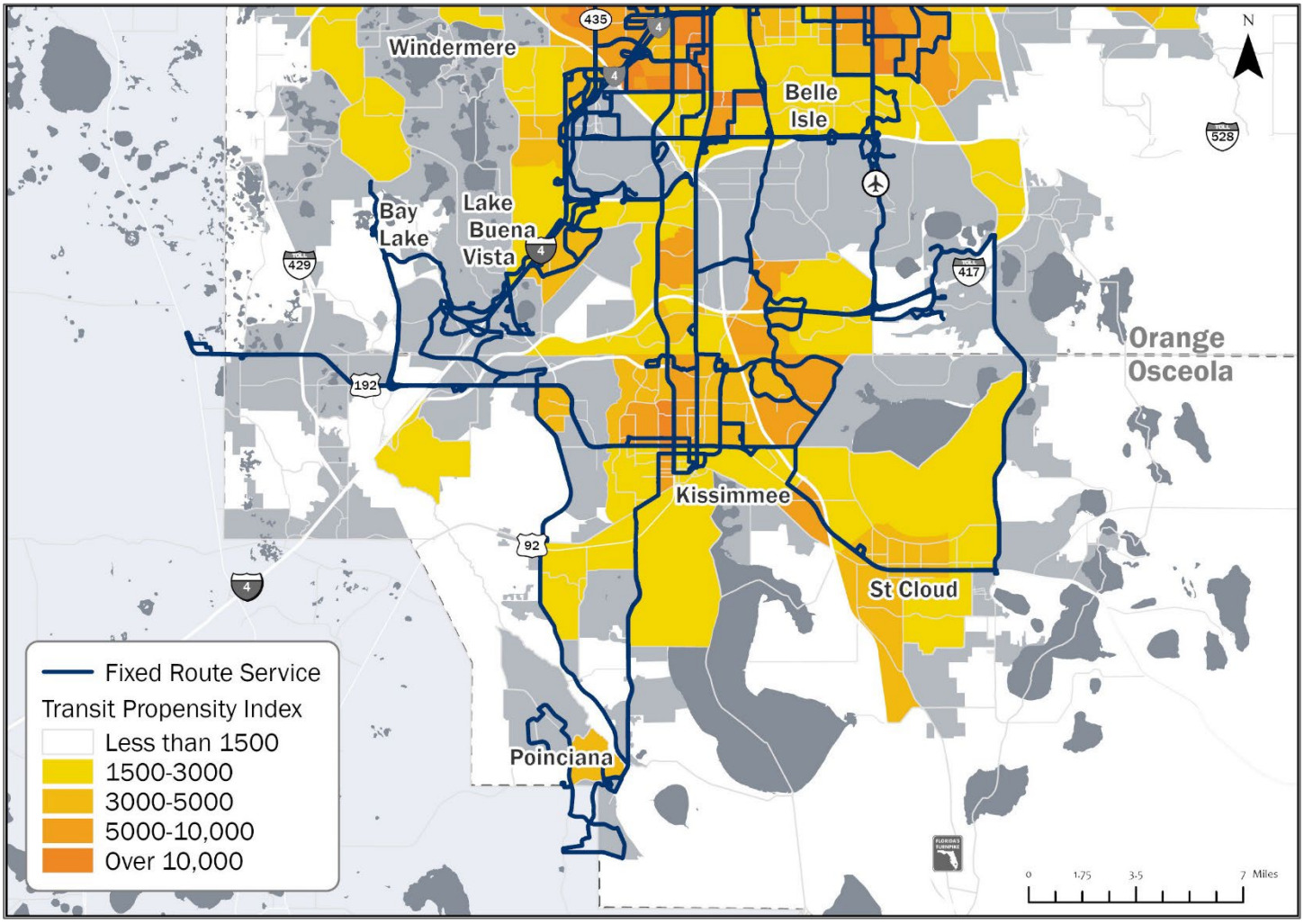
- Downtown Orlando
- Rosemont North neighborhood (West of the MetroPlan Orlando region)
- Around the West Oaks Mall (West of the MetroPlan Orlando region)
- In Oak Ridge, west of the Mall of Millenia
- Around the AdventHealth hospital in Kissimmee
- Lake Fredrica
- Around the University of Central Florida

Figure 2-2 | Transit Propensity by Census Tracts (Northern Region)



Source: ACS 2022

Figure 2-3 | Transit Propensity by Census Tracts (Southern Region)



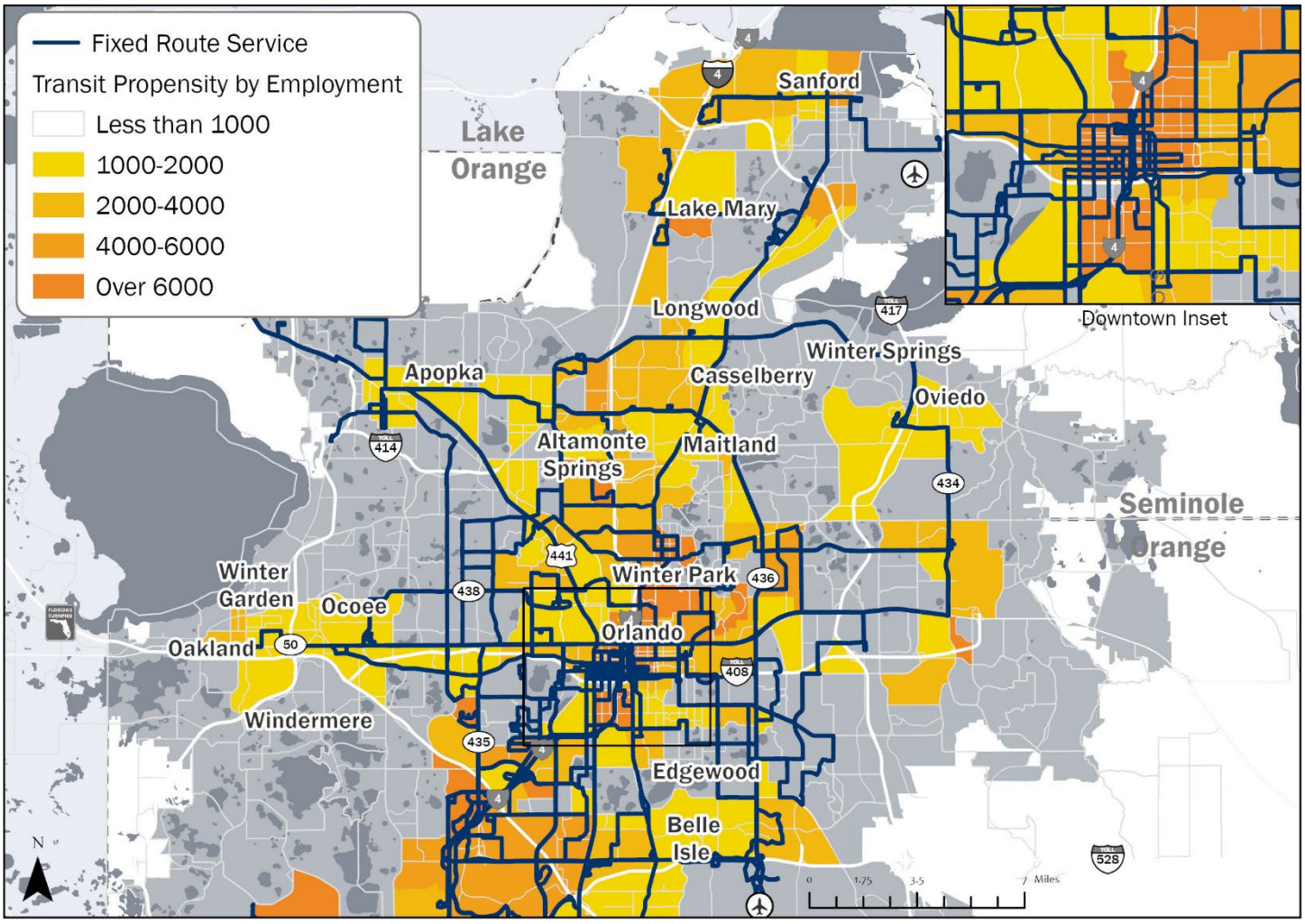
Source: ACS 2022

TRANSIT PROPENSITY FOR EMPLOYMENT

This study employs a unique method for calculating the employment density for the region. Unlike traditional approaches, the TPI values for industry-specific commuting behaviors was multiplied by the number of individuals employed in each industry within census tracts and normalized by the area, the resulting employment density map offers insights into the spatial distribution of employment while considering both industry composition and transit demand. Figure 2-4 and Figure 2-5 show the employment density by census tract within the region. Areas with the highest employment density are:

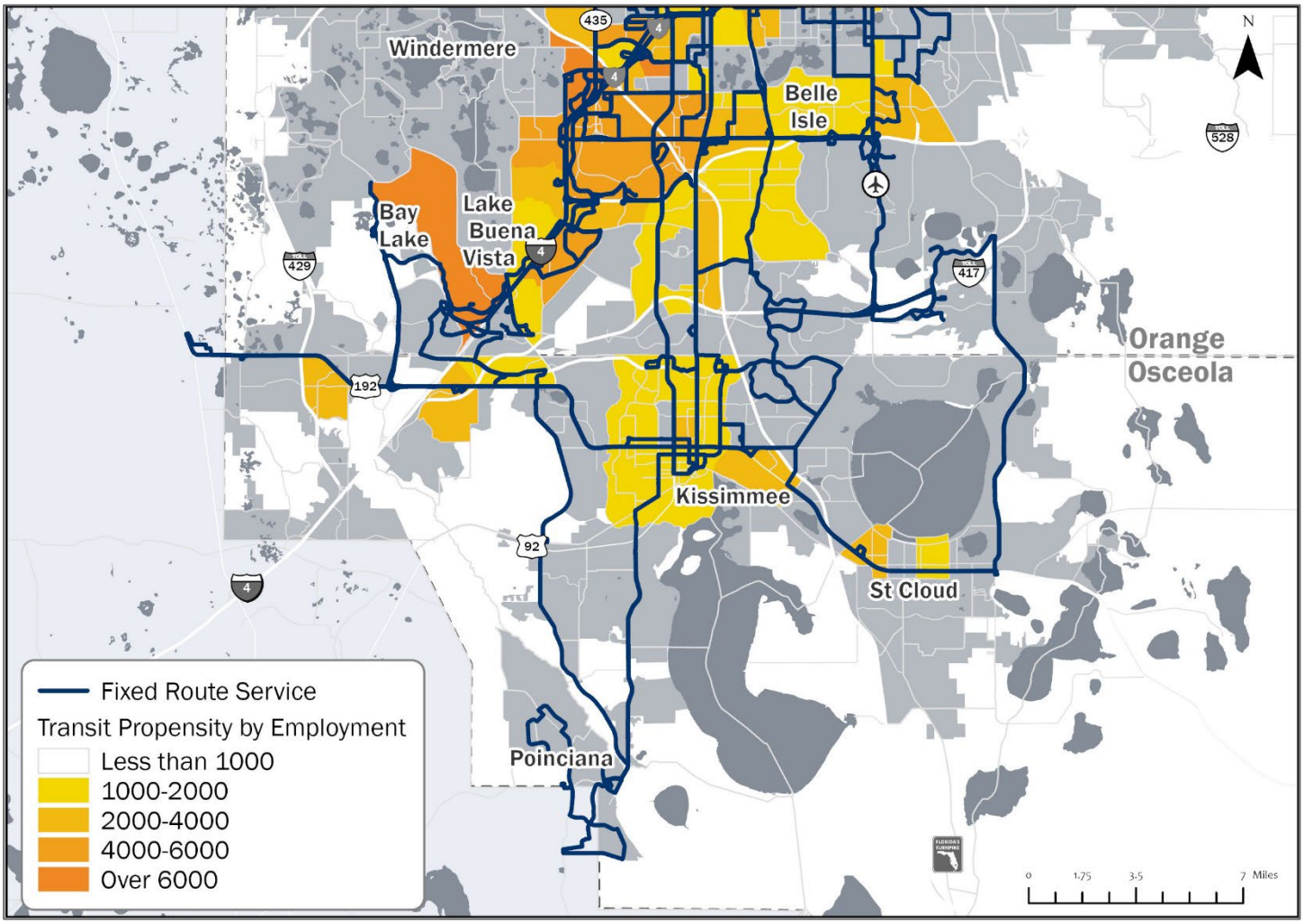
- Disney World in Orlando
- Universal Studios in Orlando
- Around the Orlando Health Orlando Regional Medical Center
- Downtown Orlando
- Around AdventHealth Orlando
- North of Lake Baldwin, around the cluster of hospitals
- Tangelo Park

Figure 2-4| Transit Propensity by Employment (Northern Region)



Source: ACS & LEHD 2022

Figure 2-5 | Transit Propensity by Employment (Southern Region)



Source: ACS & LEHD 2022

2.3 PEER REVIEW

A peer analysis is a process where an agency compares its performance measures with the other similar/comparable organizations, cities, or regions. A peer analysis is important for the competitive positioning of the region in the country by evaluating the public facilities and services in Central Florida against similarly positioned areas.

Identification of Peers

Peers were selected based on their similarities in terms of size and population with MetroPlan Orlando. Seven metropolitan areas were identified (Figure 2-6). The rationale for selecting each of these peers is discussed below.

Charlotte: The urbanized area of this peer is similar to that of Orlando. It is one of the fastest growing metro areas of the southeast USA along with Orlando.

Jacksonville: Jacksonville and St. Agustine urbanized areas are included as this peer. This peer is also located in the state of Florida and shares close geographic proximity with the Orlando Metro Area. Further, the urbanized area of this peer is also similar to that of Orlando.

Las Vegas: This peer includes Las Vegas, Henderson, and Paradise urbanized areas. The urbanized area and urbanized area population of this peer is significantly lesser than Orlando. But the fact that this metro area also has a tourism-based economy is the reason behind its selection.

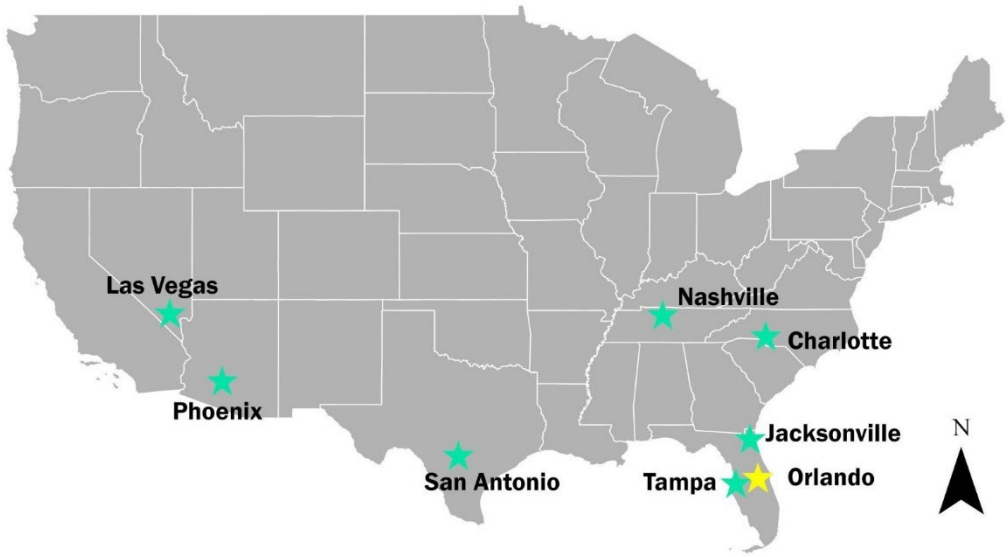
Nashville: This peer includes urbanized areas of Nashville and Davidson in the state of Tennessee. The urbanized area of this peer is comparable to Orlando.

Phoenix: Phoenix, Mesa, and Scottsdale urbanized areas are included as a part of this peer. This peer reflects the anticipated future of the MetroPlan Orlando and is included based on the recommendation of the MetroPlan Orlando staff.

San Antonio: The urbanized area and population of this peer is comparable to Orlando. Like Orlando, San Antonio is also one of the most visited tourist destinations in the state of Texas.

Tampa: This peer includes Tampa, St-Petersburg and Spring Hill urbanized areas and shares geographic proximity with the Orlando Metropolitan Area in the state of Florida.

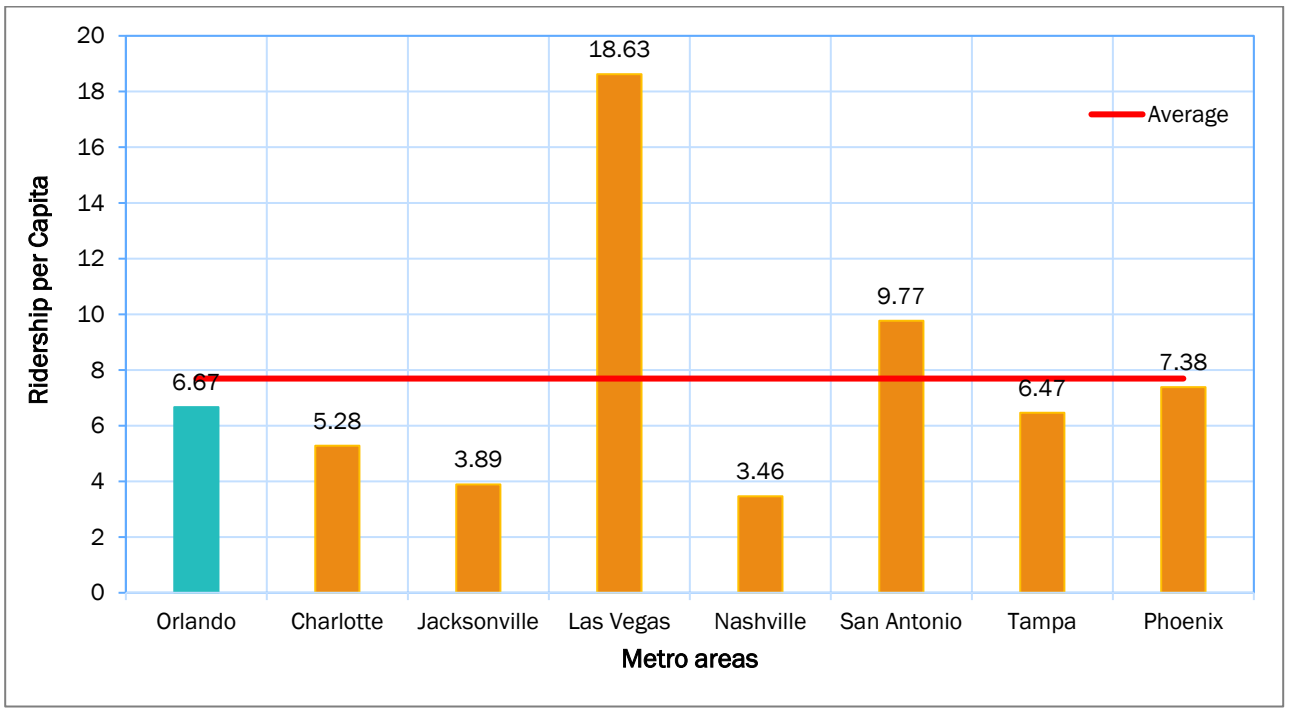
Figure 2-6|Peer Regions



Ridership per Capita

Transit ridership per capita serves as a crucial metric in assessing the utilization of public transportation within various cities, providing insights into the efficiency and popularity of transit systems relative to the population they serve. In Figure 2-7, the peers are compared based on transit ridership per capita (including all modes) for the fiscal year 2022. The average ridership per capita across all peers is 7.69. Las Vegas stands out with a high ridership per capita of 18.63, suggesting a significant reliance on public transportation in comparison to its population. On the other hand, Nashville and Jacksonville exhibit lower numbers, indicating relatively lower transit usage per person. In the case of Orlando, the transit ridership per capita is found to be 6.67, slightly below the overall average of 7.69. Cities with ridership per capita below the average may need to assess and address factors affecting public transit usage, such as accessibility, coverage, or convenience.

Figure 2-7| Ridership per Capita for Peer Regions

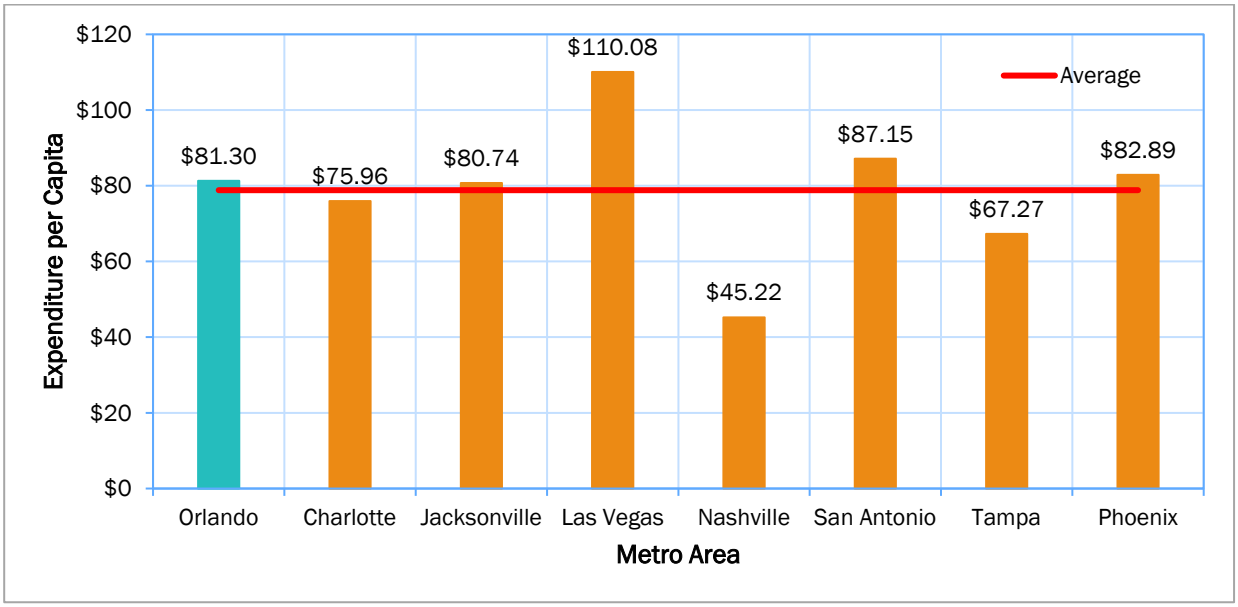


Source: NTD 2022

Expenditure per Capita

Expenditure per capita evaluates the cost-effectiveness and financial sustainability of public transit systems. It measures the total expenditure on transit services (all modes) per person in an area, providing insights into the cost per unit supply to measure the financial efficiency of transit agencies. In this analysis, we delve into expenditure per capita for transit agencies in the peer regions (Figure 2-8). Nashville demonstrates a frugal approach, with the lowest expenditure per capita, below the average of $78.3 while Las Vegas stands out with significantly higher spending. Orlando is slightly higher than the average. Expenditure per capita below the average may be considered more financially efficient, utilizing resources effectively to provide transit services, while expenditure per capita above the average may need to scrutinize their spending patterns and explore ways to optimize costs while maintaining service quality.

Figure 2-8| Expenditure per Capita for Peer Regions



Source: NTD 2022

3 Key Challenges and Opportunities

Transit agencies, like many organizations, face a myriad of challenges and opportunities that shape their trajectory in the market. In this section, we delve into the key issues and opportunities that LYNX and SunRail face, offering insights into the potential pathways for growth and sustainability.

3.1 KEY CHALLENGES

Funding

A significant threat to LYNX is funding shortages, which can impede the organization's ability to maintain and enhance its services, invest in infrastructure improvements, and implement innovative transportation solutions. None of the three counties LYNX serves have a dedicated funding source, which could have built some stability in the system. A lack of adequate funding can lead to service cuts, reduced frequency, and limited expansion which hinders LYNX's ability to address operational challenges, to meet the needs of the growing population.

On-Time Performance

LYNX's on-time performance (OTP) for the fixed route is currently 73% and LYMMO at 77%. This inconsistency in meeting scheduled arrival times undermines the reliability of the service, reducing customer confidence and potentially leading to decreased ridership or heightened passenger frustration. Improving OTP is important for enhancing overall customer satisfaction and ensuring the efficient use of transit resources. By progressively improving on-time performance, LYNX can build confidence in its services, attract more riders, and fulfill its mission of providing reliable and punctual transportation. In addition, as traffic in the region increases, maintaining a strong OTP will require additional resources simply to maintain current service levels, as there are external factors such as traffic congestion which affects OTP and is not in the direct control of LYNX.

Transportation Safety

There are many transit stops that do not have connecting sidewalks and are far from the marked and controlled crossing locations especially on six-lane arterials forcing riders with a destination on the other side of the street (or for one end of their trip) to either walk a far distance out of their way or cross an arterial at an uncontrolled location where there may not be sufficient gaps in traffic signals for pedestrian crossing. Many riders get on and off the buses on the region's high injury network[1], a collection of roads where a disproportionate number of fatal and severe injury crashes occur which raises a serious safety concern.

Personal Safety

Further, the lack of adequate security measures and surveillance in certain areas of the transit network can raise safety concerns for passengers, particularly during off-peak hours and in less populated areas. Addressing these safety issues is essential to improve the overall security and reliability of the LYNX service, ensuring a secure and comfortable transit experience for all passengers, regardless of the time or location of their journey.

High Rail Operating Cost

Despite offering relatively affordable fares for passengers, SunRail faces a significant challenge in its operational costs, which are notably higher compared to many of its peers operating commuter rail services (see Table 3-1). With a cost per train hour averaging $1,740, SunRail's operational costs surpass those of a similar rail service. This higher operational cost per passenger indicates inefficiencies within the system, potentially stemming from factors such as maintenance, staffing, energy consumption, or infrastructure upkeep.

[1] MetroPlan Orlando Regional Vision Zero Action Plan, 2024.

Table 3-1| Rail Operating Cost of Peer Agencies

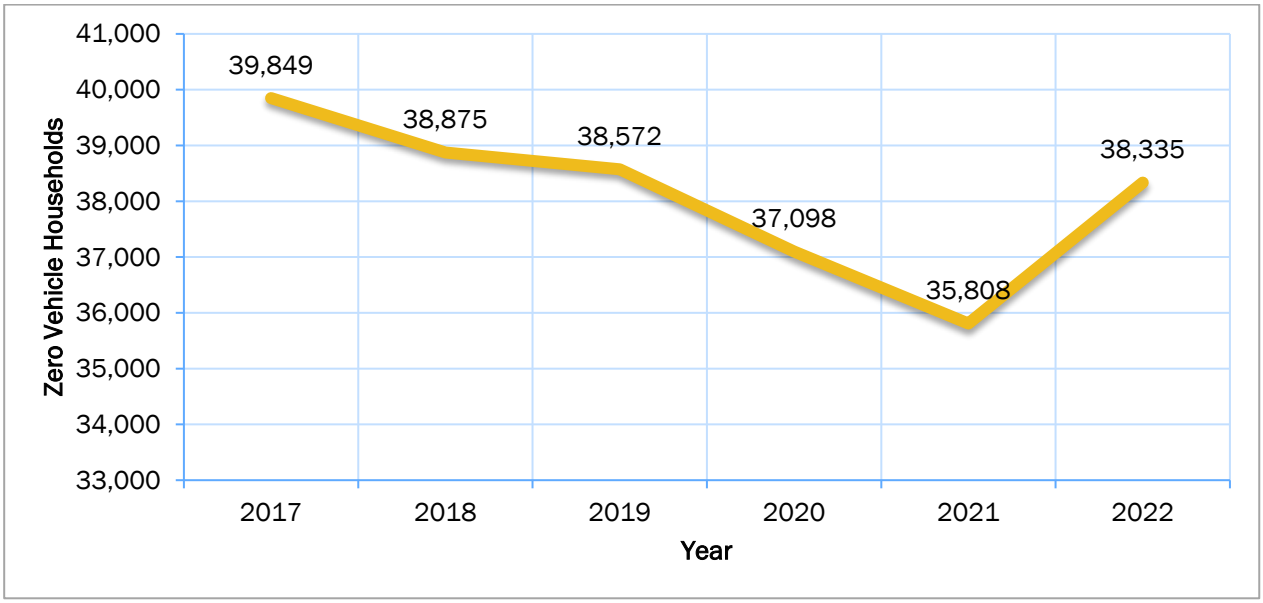
Region	Operating Expense	Cost per Train Hour
Dallas Area Rapid Transit (DART)	$42,085,462	$83
South Florida Regional Transportation Authority (Tri-Rail)	$112,595,719	$925
Regional Transportation Authority, Nashville	$4,276,319	$762
Utah Transportation Authority	$64,403,715	$430
Central Florida Commuter Rail SunRail	$63,147,846	$1,740

Source: NTD 2022

Vehicle Ownership Trends Within the Region

The steady increase in car ownership poses a significant threat to LYNX as it could lead to a decline in public transit ridership and a corresponding reduction in fare revenue. From 2017 to 2021, the number of households without vehicles has been decreasing at an average rate of about 2.6% per year, however, in 2022, there was an increase of about 7% (Figure 3-1). Despite a notable increase in the number of households without vehicles in 2022, the broader trend of vehicle ownership remains on an upward trajectory indicating a growing inclination towards vehicle ownership. As more residents opt to use personal vehicles, the dependency on or interest in public transit diminishes, potentially resulting in decreased utilization. Additionally, increased vehicle ownership causes increased traffic congestion, which impacts transit speed and reliability and further incentivizes individuals to choose personal vehicles for their trips. The sprawling nature of development in the region can also be a contributing factor to the increasing vehicle ownership.

Figure 3-1| Vehicle Ownership



Source: ACS 2022

3.2 OPPORTUNITIES

Recreation and Entertainment Sector Jobs

The MetroPlan Orlando region's strength in the recreation and entertainment sector, employing around 14.5% of its workforce, underscores the region's appeal as a vibrant cultural and leisure destination. Given the nature of roles within this sector, reliance of these workers on transit not only emphasizes the importance of a robust transit system but also presents an opportunity to meet the needs of these workers by making transit more accessible to this workforce.

Service Enhancement

LYNX has a valuable opportunity to expand its on-demand services and enhance service frequency on its local routes where necessary to better serve growing communities and adapt to evolving transportation needs. By strategically expanding the service coverage and increasing the frequency of routes, LYNX can improve accessibility, accommodate population growth, and meet the increasing demand for reliable and efficient public transportation. Considering that LYNX has only about 50% of jobs in the region within its catchment area, this expansion of service can target job centers as work trips generate daily trips.

Advertisement Revenues

LYNX has a promising opportunity to generate additional revenue through advertisement placements on its vehicles, stations, and digital platforms. In 2023, LYNX generated about $2,714,796 from advertising. Leveraging its extensive and diverse route network, LYNX can attract more advertisers interested in reaching a broad audience on their daily commute. By strategically implementing and managing advertisement campaigns, LYNX can tap into a lucrative revenue stream without increasing the financial burden on passengers or reducing the quality of service.

Micromobility

Integrating LYNX with micro-mobility options presents a significant opportunity by expanding market reach and tapping into the growing demand for flexible, last-mile transportation solutions. This integration enhances connectivity, making public transit more accessible and appealing, which can increase ridership and promote sustainability through eco-friendly travel options. Moreover, it opens avenues for strategic partnerships with micro-mobility providers.

Multimodal Integration

There are opportunities to better integrate SunRail service and bus service through such means as an integrated fare system for both modes, better service connections, and other aspects. The prospect of a single agency operating both services in the future should improve the likelihood of more seamlessness. LYNX also has an opportunity to enhance its services by further integrating with other transportation modes like Brightline, I-Ride Trolley and micromobility options. Strengthening these integrations can create a seamless and interconnected transit network, providing passengers with more convenient and flexible travel options.

Other opportunities exist with transit-oriented development which will be discussed in Chapter 4, and potential technology advancement in public transit discussed in Chapter 9.

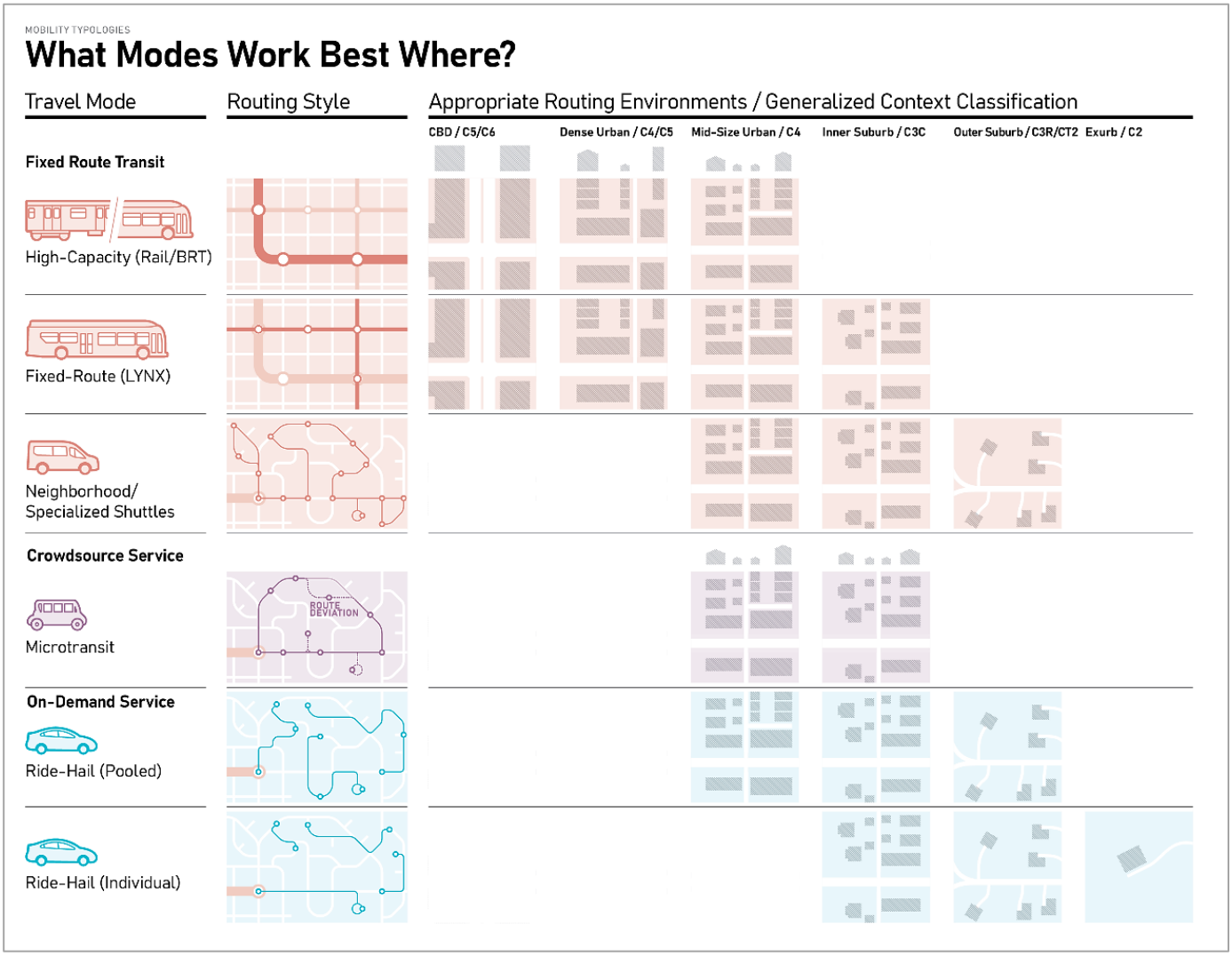
4 Transit Oriented Development

SunRail has an opportunity to catalyze Transit-Oriented Development (TOD) around its stations, leveraging its existing infrastructure and ridership. By strategically partnering with local governments and developers, SunRail and LYNX can encourage the following:

- Creation of mixed-use developments
- Affordable housing
- Commercial spaces within walking distance of stations.
- Higher density development and a mixture of housing types
- Pedestrian friendly design
- Transit supportive parking policies and development standards

This approach not only maximizes the utilization of land near stations but also enhances accessibility and encourages sustainable urban growth. Additionally, TOD initiatives can generate revenue streams for SunRail through lease agreements and increased ridership, while simultaneously fostering vibrant communities and reducing car dependency. An example of this is the development that has occurred around the Lake Mary SunRail station. The city has taken advantage of the station to revitalize the downtown and create mixed-use TOD, including the creation of a Downtown Development District and Downtown Master Plan. The newly constructed $32 million Station House Apartments project has provided two hundred multi-family residential units extremely close to the station serves as a prime example of how the establishment of SunRail stations can catalyze significant development. Figure 4-1 depicts the type of transit that is supported by different land development patterns. As part of a separate process, MetroPlan Orlando will be preparing additional guidance related to transit supportive design and policies to help local jurisdictions interested in increasing transit service in their communities develop transit-ready neighborhoods.

Figure 4-1 | Transit Supportive Development Patterns



Source: Fehr & Peers

5 Existing Plan Highlights

5.1 LYNX TRANSIT DEVELOPMENT PLAN MAJOR UPDATE (SEPTEMBER 2022)

The September 2022 Transit Development Plan major update is in line with the LYNX's vision "to be recognized as a world-class leader for providing and coordinating a full array of mobility and community services". This Transit Development Plan major update was to build upon the Route Optimization Study (ROS) that was conducted in 2018. The focus of the ROS was to re-imagine the transit services provided by the LYNX to serve the transportation needs of the region. Four goals were identified to guide this update of the TDP. In addition, goal-specific strategies and performance measures were outlined.

The four goals are:

- Deliver a seamless network of transportation services for that region.
- Advance a reliable, safe, equitable, dynamic, and performance driven transit system.
- Enhance customer experience and communications.
- Promote economic competitiveness, sustainability, and quality of life.

The plan outlines the LYNX's unified approach to serve the transit needs of all three counties. The 10-year regional needs established in this update are the subset of 20-year county transit plans. To serve a variety of travel markets in the region, a hierarchy of public transportation services is proposed. including high frequency local stop routes, high frequency limited stop routes, regional express routes, commuter express routes, primary local stop routes, secondary local stop routes, commuter/circulator routes, and on-demand/flexible services. In addition to these services, high-capacity corridors were identified in all three counties (see Table 5-1). These corridors are planned to have high-quality transit infrastructure which includes walk-up stations, community stations, enhanced facility connections and access, signal timing and coordination, transit signal priority (TSP), dedicated transit lanes, and park and ride facilities.

Table 5-1| High-Capacity Corridors

County	Alignment
Orange	Silver Star Road
Orange	Oak Ridge Road
Orange & Seminole	U.S. 17/92
Orange & Seminole	S.R. 436
Orange & Osceola	U.S. 441
Orange	S.R. 50
Orange	Kirkman Road
Orange	International Drive
Orange	S.R. 528
Orange	S.R. 408 East/West Express
Osceola	U.S. 192

5.2 LYNX ORANGE COUNTY TRANSIT PLAN

The LYNX Orange County Transit Plan (2022) outlines comprehensive refinements to the existing transit network, building upon the 2018 Transportation Development Plan (TDP). This plan will be used for the improvement of the bus services in the Transit Vision Master Plan. The proposed changes include route realignments, enhanced service levels, and new facilities to optimize transit within Orange County while ensuring connectivity across county lines. The transit network spans various service types, such as SunRail/commuter rail, high frequency and regional express buses, local routes, community/circulator routes, on-demand/flexible services, and high-capacity corridor services. These services will be executed in six phases over a 20-year horizon Phase I from 2024, Phase 2 2025, Phase II 2026, Phase IV 2030, Phase V 2032 and Phase VI 2034. Additionally, a reduced fare program, particularly for low-income riders, and updates to the paratransit system are included in the plan. The plan envisions an improved and diversified transit system, emphasizing increased efficiency, accessibility, and responsiveness to the evolving needs of the population.

To enhance SunRail's functionality, the plan proposes improvements in operating characteristics within Orange County, including increased service frequencies during peak hours, midday, and weekends, as well as an extension to the Orlando International Airport. The plan also suggests adding a new Edgewood SunRail Station to address transit demand along the South Orange Avenue corridor. Additionally, the Orange Blossom Express (OBE) commuter rail service is introduced, connecting downtown Orlando to northwest portion of the county via Zellwood with seven stations and offering varying service frequencies on weekdays and weekends along the Florida Central Railroad alignment.

The Orange County Transit Plan identifies key transit investment corridors in Orange County. Divided into priority and high-capacity corridors, primary corridors, like Silver Star Road and U.S. 17-92 North, target higher-volume areas with increased passenger amenities. High-capacity corridors, including S.R. 50 and S.R. 436, propose significant capital investments for advanced transit systems. The plan also includes other capital investment programs, primarily focusing on bus and bus facilities, transit centers, and commuter rail service.
The funding model involves a combination of federal, state, and local contributions. The 20-year cash flow analysis reveals a total capital program cost of $4.97 billion, with Orange County contributing $1.66 billion, averaging $83.13 million per year. Operating costs for the 20-year period amount to $6.40 billion, with Orange County's share being $3.74 billion, resulting in a total program cost of $11.4 billion, of which Orange County contributes $5.4 billion. Additionally, a 30-year analysis indicates an overall program cost of $16.4 billion, with Orange County contributing $8.1 billion. These financial plans account for federal and state funding to maximize the value generated by local tax contributions.

5.3 LYNX OSCEOLA COUNTY TRANSIT PLAN

The Osceola County Transit Plan, (2020) like the Orange County Plan, includes service enhancements and new services, ensuring compatibility with the regional network while addressing specific needs within Osceola County. The transit network comprises various service types, such as SunRail commuter rail, high-frequency routes, regional express routes, local routes, community/circulator routes, and on-demand/flexible services. The phased implementation spans ten years, with four distinct phases. Phase I (2023) focuses on regional express services and local routes. Phase II (2026) addresses the U.S. 192 corridor and Poinciana connections. Phase III (2029) introduces services in the U.S. 192 east and Kissimmee areas. Finally, Phase IV (2032) completes service enhancements in Osceola Parkway and Poinciana. Additionally, a staffing plan is emphasized, acknowledging the importance of hiring and training operators for the expanded services.

The capital investment program for the Osceola County Transit Plan is delineated into various categories, including vehicle acquisition, transit centers, and high-capacity corridors. Additionally, the plan addresses the need for a new bus maintenance facility due to the expansion of the LYNX fleet. The overall estimated capital costs for implementing the Osceola County Transit Plan amount to approximately $2.61 billion, with Osceola County's local share projected at $148.7 million.

The 30-Year Capital and Operating Program for the Osceola County Transit Plan outlines a comprehensive analysis of phased capital improvements and operating costs associated with transit service enhancements. The total estimated cost for the 30-year program is $4.94 billion, with $1.51 billion allocated to Osceola County. Additionally, the document highlights recommended unfunded needs, categorizing deferred services and associated costs for potential inclusion in future years, such as SunRail enhancements, additional bus routes, and premium bus corridors. The total cost of these unfunded needs is estimated at $644.65 million, contributing to a more comprehensive 30-year plan cost of $2.16 billion if incorporated.

5.4 LYNX SEMINOLE COUNTY TRANSIT PLAN

The goal of the Seminole County Transit Plan (2020) is to provide efficient, accessible, and reliable transit options for the growing Central Florida region. Notable elements involve service extensions, and the introduction of new services to better connect Seminole County. The plan introduces various service types, including high frequency transit, regional express, local routes, on-demand/flexible services, premium corridor services, and complementary paratransit services.

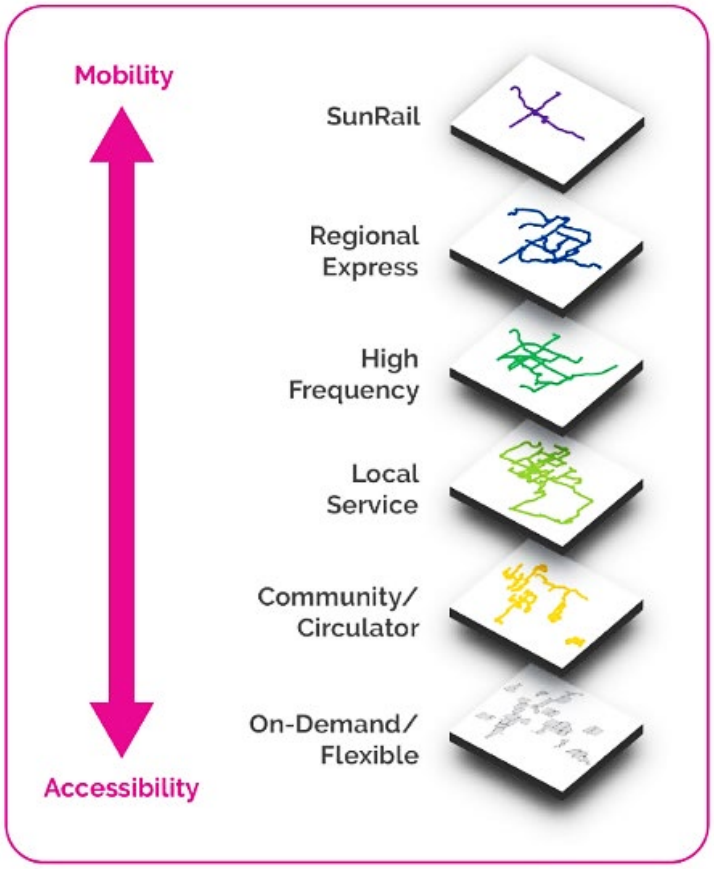
The LYNX Seminole County Transit Plan is designed to align with the LYNX Orange County Transit Plan, maintaining consistency in the phased approach and route adjustments. Successful implementation is contingent on a series of capital improvements, including vehicle acquisition, a new maintenance facility, transit centers, and passenger amenities. The phased transit service implementation spans four phases over a ten-year period. Phase I focuses on two regional express services to the University of Central Florida (UCF) and service adjustments in Sanford, Phase II introduces high-frequency corridors on U.S. 17/92 and along S.R. 434 from Altamonte Spring to UCF, Phase III adds two new routes to Lake Mary and Sanford, one secondary route and two NeighborLinks, and Phase IV completes high-frequency corridors and other service enhancements.

Key components of the capital investment program include the acquisition of various transit vehicles, including vans, city buses, articulated buses, and coaches. The plan also underscores the need for diverse transit facilities such as walk-up stations, community stations, transit/transfer centers, and modifications to commuter rail stations. Funding assumptions involve a mix of federal, state, and local contributions, with Seminole County sharing a portion of the local funding. The operating requirements and costs outlined in the Seminole County Transit Plan are organized across four phases of implementation, each introducing new service routes and improvements. The total 30-year capital program amounts to $3.40 billion, averaging $113.17 million annually. Seminole County's share is $421.03 million, averaging $14.03 million per year. The total operating cost over 30 years is $2.13 billion, with Seminole County contributing $1.58 billion. Combining capital and operating costs, the total program is $5.51 billion, and Seminole County's share is $2.01 billion.

6 Transit Options

In the MetroPlan Orlando region, a number of transit options cater to diverse commuting needs. From efficient rail systems and high-frequency services to express routes and local buses, and on-demand service, each service type operates in a different way, ensuring seamless connectivity across the metropolitan area (Figure 6-1). This section describes each of these services, highlighting their unique features within the MetroPlan Orlando region and existing routes that fall under each type. Span of service, headways and stop spacing for each service type can also be found in Appendix A.

Figure 6-1 | Different Types of Transit Service

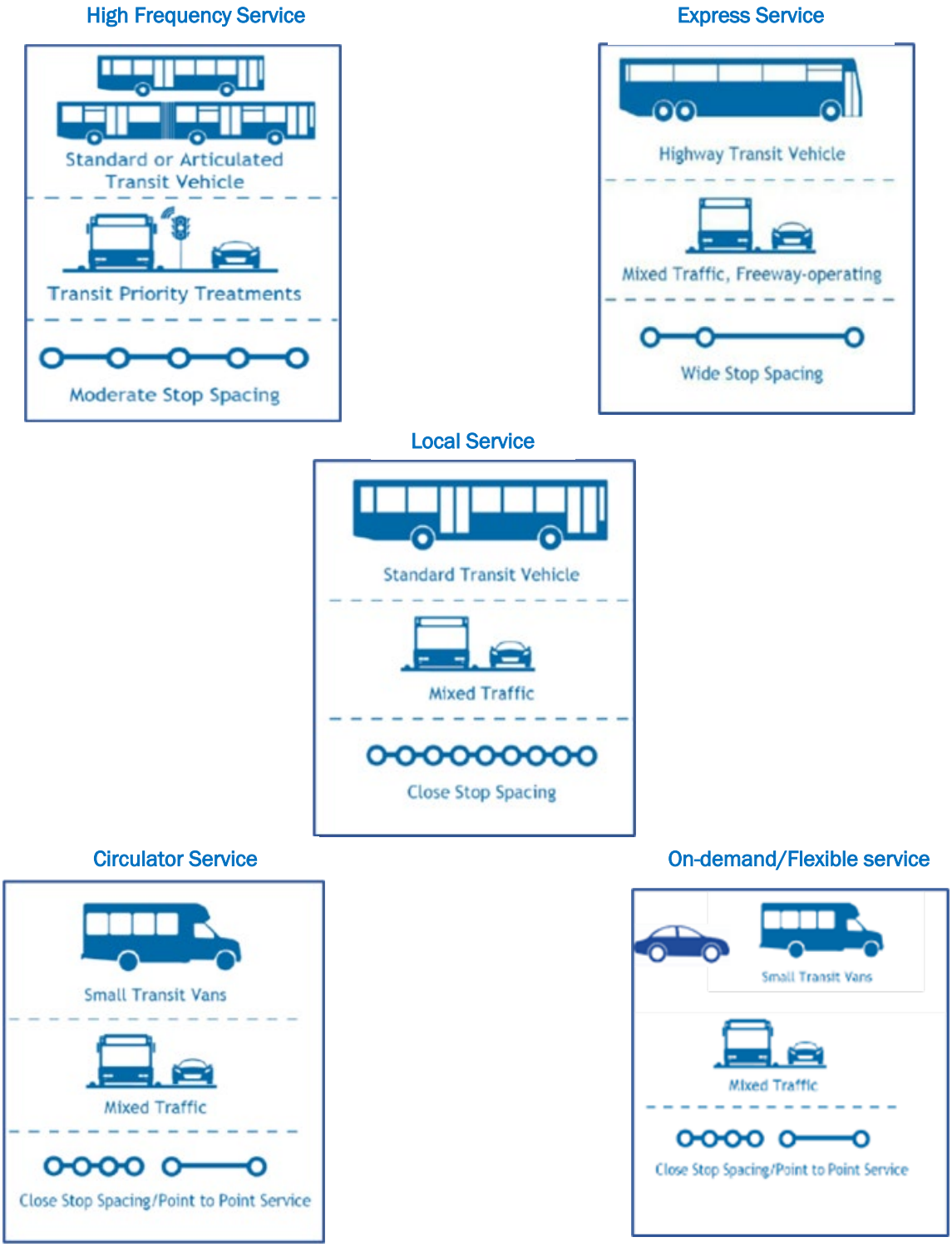


Source: LYNX TDP 2022

6.1 SERVICE CATEGORY PROFILE

LYNX has identified different service categories creating a new hierarchy of public transportation services. This multi-tiered transit network (Figure 6-2) aims to cater to the travel needs of different user groups and consists of five major service categories: high frequency service, express service, local service, community and circulator service, and on-demand/flexible service. These levels of service provide a comprehensive range of mobility and accessibility options for the region.

Figure 6-2 | Multi-tiered Transit



6.1.1 HIGH FREQUENCY SERVICE

High-frequency service are routes that run along major commercial corridors, offering efficient and reliable transit options. This type of service includes both frequent stops for local access and limited-stop routes for quicker travel along the corridor. Together, these routes form a regional network focused on providing fast and accessible transit options to passengers. High-frequency local routes cater to accessibility needs along the corridor, while high-frequency limited-stop routes offer expedited service for longer journeys within the same corridor.

LYNX operates two of these routes; Route 8 and Route 102. Route 8 operates on W. Oak Ridge Road / International Drive line, which offers consistent service from 5 AM to midnight on weekdays with buses arriving approximately every 15 minutes during peak times and throughout the day. On Saturdays, service continues from 5 AM to 10 PM, maintaining the 15-minute headway for most of the day, though it extends to 30-minute intervals during late evenings. Sundays see slightly reduced service hours, running from 5 AM to 7 PM, but still maintain a 15-minute headway during the day. Route 102 operates on Orange Avenue/South 17-92 line with service operating from 5 AM to midnight on weekdays. During peak hours and midday, buses run every 15 minutes, Saturdays see service from 5 AM to 11 PM with 15-minute headways, gradually extending to 30-minute intervals as the day progresses, and Sundays offer service from 5 AM to 9 PM, with buses running every 15 minutes during the day.

6.1.2 EXPRESS SERVICE

The regional express service is designed to serve long trip distances and reduce travel times for those travelling greater distances. There are two types of express service: the commuter bus express and regional express. Commuter bus service offers non-stop service to downtown Orlando from outlying areas. Regional express service operates throughout the day and allows a faster alternative for customers travelling regionally.
LYNX operates four of these routes; 38, 300, 311, and 350. These routes include connections between Downtown Orlando, Magic Kingdom, SeaWorld, International Drive, Disney Springs, Florida Mall, Orange County Convention Center, and Orlando International Airport (OIA). During peak and off-peak hours, the service operates at frequent intervals, with a bus every 30 minutes. Operating hours for Regional Express span from 5 AM to 11 PM for most routes.

6.1.3 LOCAL BUS

The local transit service comprises primary and secondary routes, each with distinct characteristics. Primary routes operate on major arterials and local streets with minimal deviations, offering service every 30 minutes on weekdays. In contrast, secondary routes cover both major and minor local streets, incorporating occasional deviations to enhance accessibility. These secondary routes maintain a frequency of one hour throughout the week, ensuring consistent service availability.

LYNX operates twenty-nine primary local bus routes and twenty-one secondary local routes offering frequent service with intervals ranging from every 30 to 60 minutes throughout the day for the primary local and every 60 minutes for the secondary local. These routes cover key areas such as East U.S. 192, S. Orange Avenue, Universal Orlando, and W. Colonial Drive, among others. With operating hours typically spanning from early morning until late evening, these routes provide essential transportation for commuters, residents, and visitors alike, contributing to the accessibility and connectivity of the region's public transit network. Operating hours are from 4:30 AM – 5 AM until 10 PM or 11 PM (9 PM or 10 PM on Sunday).

6.1.4 COMMUNITY/CIRCULATOR BUS

Community/Circulator buses serve a relatively small area and circulate through a neighborhood, linking it to nearby destinations or connection points for customers to use other services. There are the three LYMMO routes, and two 30-minutes circulators, Route 405 and Route 426. LYMMO operates on several routes, each serving different parts of downtown Orlando. These routes include:

- **LYMMO Orange Line**: This line operates in a loop around Downtown Orlando, connecting major destinations such as the Kia Center, City Hall, Orlando Public Library, Creative Village, and LYNX Central Station. It operates every 8 minutes during peak and midday hours, 15 minutes evenings, weekends, and holidays. The span of service is from 6 AM to 10:30 PM on weekdays, 8 AM to 10 PM on weekends. The LYMMO Orange Downtown Line has its own lane and controls its own traffic signals to make sure it is never slowed down by traffic.

- **LYMMO Grapefruit Line**: The Grapefruit Line connects the downtown area serving Parramore, Kia Center to Lake Eola. It operates every 8-10 minutes during peak and midday, 15 minutes evenings, weekends, and holidays. The span of service is from 6 AM to 10:30 PM on weekdays, 8 AM to 10 PM on weekends.

- **LYMMO Lime Line**: The Lime Line serves the North Quarter area, Kia Center, LYNX Central Station, and as far south as Beardall Senior Center. It operates every 15 minutes during peak and midday, every 20 minutes evenings, weekends, and holidays. The span of service is from 6 AM to 9 PM on Weekdays, 8 AM to 9 PM on weekends.

Route 405 is a 60-minutes circulator that operates in Apopka from 4:45 AM to 10:50 PM on weekdays and from 5 AM to 9PM during the weekends. Route 426 operates in Poinciana on weekdays and Saturdays from 5 AM to 10:45 PM every 60 minutes with service on weekday peak hours at 30 minutes.

6.1.5 NEIGHBORLINK SERVICE

Regular fixed route services typically operate on fixed routes and schedules, whereas NeighborLink services offer on-demand pick-up and drop-off within a defined service area. Instead of following a set route, NeighborLink vehicles take the most efficient path to connect passengers' requested locations. While they have specific arrival and departure times at major hubs or transit centers for timed transfers, the rest of the service operates based on passenger requests made through a call center or mobile app.

The NeighborLink service operates on weekdays and some routes operate on Saturdays from approximately 5 AM to 8 PM and is anchored at a major transit stop that they serve every 60 minutes.

6.1.6 RAIL

The SunRail service serves as the north-south spine of the regional transit network. The service runs Monday through Friday along a 49-mile rail corridor from DeBary (soon to be DeLand) in Volusia County to Poinciana Boulevard in Osceola County. Orange County currently has eight of the sixteen SunRail commuter rail stations.

7 Bus System Needs

The TDP as well as each of the county plans included bus-related capital improvements such as the Bus Rapid Transit (BRT) and enhanced service corridors, transit centers and the acquisition of vehicles and other bus system improvements. Integrating bus needs and investments into long-range planning process ensures an efficient and sustainable transportation system which can cater to the growing transit needs in the future. The different planning elements of the aforementioned plans are discussed below, with the short-term, mid-term, and long-term implementation plans.

7.1 BRT & ENHANCED BUS CORRIDORS

The BRT system is a higher capacity bus service, often operating on dedicated and semi-dedicated lanes with signal and communication technologies designed to move the service faster in congested roadway corridors. BRT service is an alternative to rail service with comparable speed and capacity at a lower capital cost as compared to rail-based modes. Both the BRT and enhanced bus corridors will have elements such as well-designed ADA accessible stations, and a high-frequency service, however, the BRT's will have dedicated bus lanes. BRT service assists in alleviating congestion, supports economic development and promotes environmental sustainability. Eight BRT corridors and five enhanced bus corridors (Figure 7-1) were identified in the county plans to be implemented within the next 20 years.

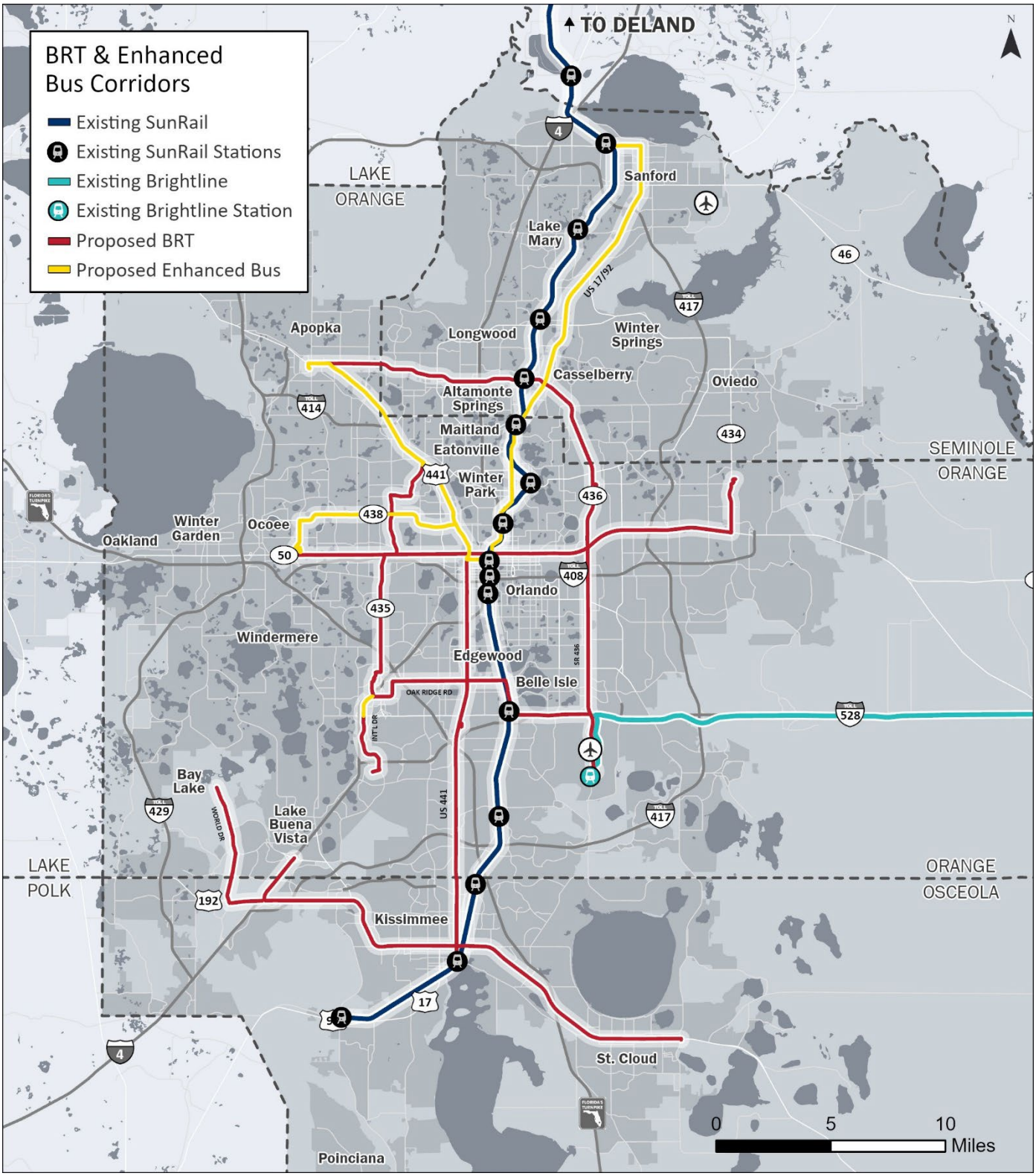
BRT Corridors

- Semoran Boulevard (S.R. 436)
- Colonial Drive (S.R. 50)
- Kirkman Road
- Oak Ridge Drive
- South International Drive
- University Boulevard to Orange Blossom Trail (U.S. 441)
- Orange Blossom Tail (U.S. 441) south of Downtown
- Irlo Bronson Memorial Highway (U.S. 192) with extension to Walt Disney World

Enhanced Bus Corridors

- Silver Star Road
- Orlando Dr (U.S. 17/92 North)
- Orange Blossom Trail (U.S. 441) North
- North International Drive
- Orlando Ave (U.S. 17/92)

Figure 7-1 | BRT and Enhanced Bus Corridors



Source: LYNX & SunRail GTFS 2025

7.2 TRANSIT CENTERS

Transit centers are facilities where customers can transfer between multiple routes; and where buses can lay over for extended periods of time. The LYNX system has existing major transit centers in downtown Orlando (LYNX Central Station) and one in Kissimmee. Other transit center facilities exist in Apopka, at Colonial Plaza, Disney Springs and on the UCF campus. These transit centers have passenger amenities and restrooms for bus operators. The three county plans have identified three (3) park and ride facilities and thirty-two (32) transit centers that will either be new establishments or expansions of improvements of existing ones (see Figure 7-2).

New Transit Centers

- Colonial Drive S.R. 50/ Semoran Boulevard S.R. 436
- Orlando Health Central Hospital/Walmart (West Orange)
- University Boulevard/ Semoran Boulevard S.R. 436 (Full Sail)
- Northeast of Semoran Boulevard S.R. 436 (Lee Vista/S.R. 436)
- Curry Ford/ Semoran Boulevard S.R. 436
- Lake Nona
- Valencia College West
- Waterford Lakes Town Center (Waterford Lakes)
- Orlando Packing District (Princeton/U.S. 441)
- New Independence Parkway and Daniel Webster Western Beltway (SR 429)
- Universal Studios
- West Vine Street US 192 at Hoagland Boulevard (Plaza del Sol)
- West Vine Street US 192 at Westside Boulevard (Four Corners)
- West Vine Street US 192 at Commerce Center Boulevard (St. Cloud Commerce Center)
- West Vine Street US 192 at Narcoossee Road (St. Cloud Narcoossee)
- Osceola Parkway at Simpson Road
- Longwood SunRail Station
- Seminole Towne Center
- Oviedo Mall
- Altamonte Mall

Improved Transit Centers

- LYNX Central Station

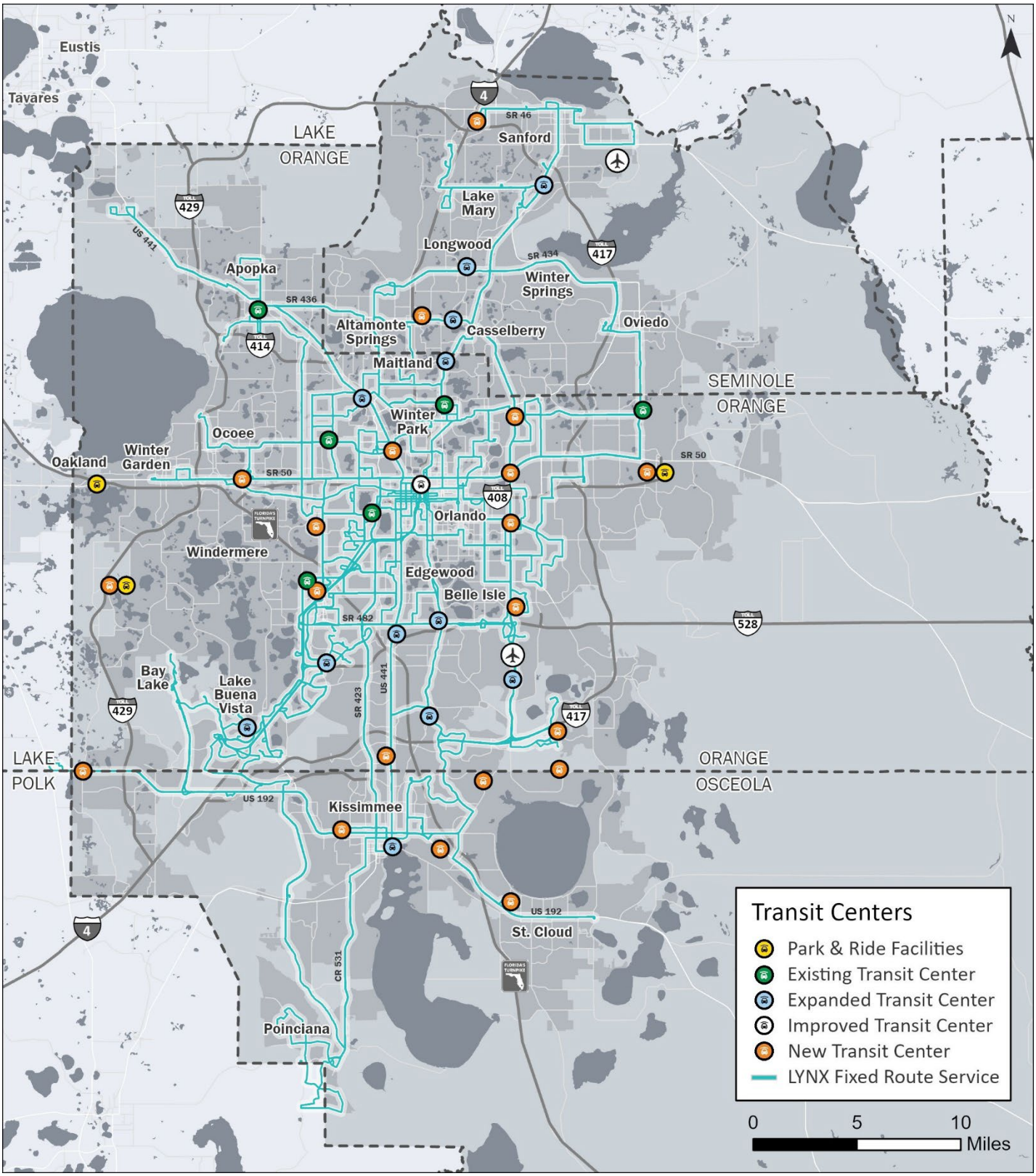
Expanded Transit Centers

- OIA South Terminal
- Disney Springs
- Florida Mall
- Rosemont Superstop
- International Drive South
- Maitland SunRail Station
- Sand Lake Road SunRail Station
- Meadow Woods SunRail Station
- Kissimmee Intermodal Station
- Irlo Bronson Memorial Highway U.S. 17/92 at Seminole Center
- Altamonte Springs SunRail Station

Park and Ride Facilities

- Waterford Lakes Town Center
- New Independence Parkway
- West Colonial Drive and Florida Turnpike

Figure 7-2 | Transit Centers



Source: LYNX & SunRail GTFS 2025

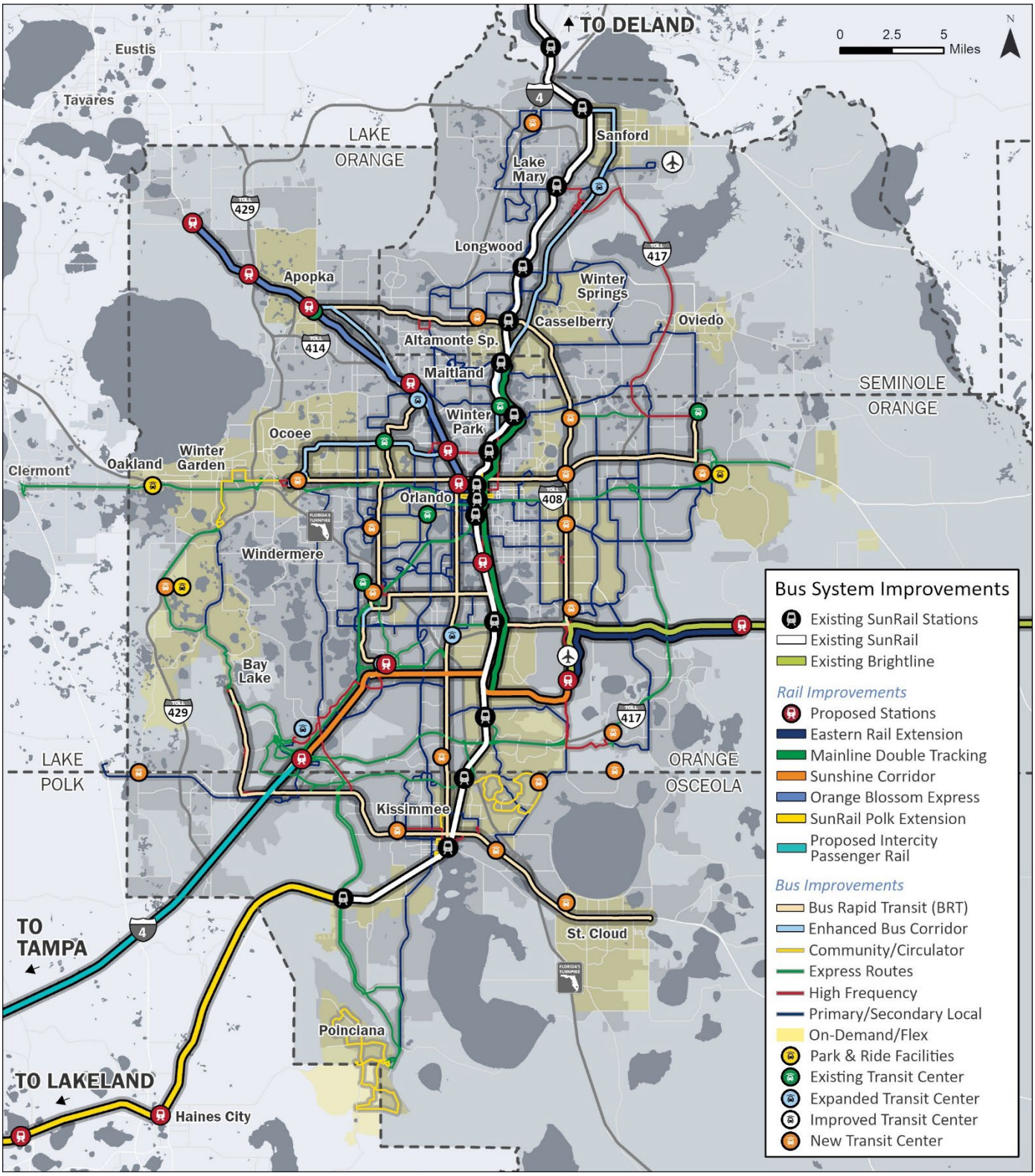
7.3 BUS SERVICE IMPROVEMENTS

Table 7-1 presents systemwide operational statistics by service type resulting due to implementation of service improvements in the time frame of 20 years. The high frequency local stop and limited stop routes are the biggest contributor of service hours and service miles followed by primary and secondary local stop routes. All the service improvements are depicted in Figure 7-3.

Table 7-1| Systemwide 20-Year Service Improvement by Service Type

Name	# of Routes	Annual Service Hours	Annual Service Miles
High Frequency Local Stop and Limited Stop Routes	28	1,208,287	16,516,992
Regional and Commuter Express Routes	17	387,152	7,279,979
Primary and Secondary Local Stop Routes	44	1,009,965	12,543,057
Community/Circulator Routes and On-Demand/Flexible Services	37	390,261	3,913,944

Figure 7-3 | Bus System Improvements



Source: LYNX & SunRail GTFS 2025

7.4 IMPLEMENTATION AND FINANCIAL PLAN

As part of the commitment to enhancing public transportation infrastructure and accessibility within the region, there are a number of planned improvements aimed at addressing current and future transit needs. This section outlines the short-, mid- and long-term implementation schedule of the various planned improvements.

7.4.1 SHORT-TERM BUS SYSTEM IMPROVEMENTS

In the short-term, from 2025 to 2029, several BRT and Enhanced Bus Corridors, numerous transit centers and some bus enhancements will be implemented. Table 7-2, Table 7-3, and Table 7-4 outline the near-term improvements and the same are depicted in Figure 7-4. Additionally, Table B-1 in Appendix B provides a more detailed list of all bus enhancements.

Table 7-2 | Capital Cost of BRT and Priority Corridors in Short-Term

County	Project Description	Capital Cost
BRT Corridors		
Orange/Osceola	Orange Blossom Trail (U.S. 441)	$208,000,000
Orange	Kirkman Road	$170,000,000
Orange	International Drive	$144,000,000
Total		**$522,000,000**
Priority Corridors		
Orange	Silver Star - Orlando Health to Advent Health (17/92)	$16,300,000
Orange	Orange Blossom Trail (U.S. 441) - Apopka SuperStop to LCS	$13,300,000
Orange	North I-Drive - Sand Lake to Universal Blvd.	$5,300,000
Orange	Martin Anderson Beachline Expressway (S.R. 528) - Destination Pkwy to OIA New Terminal	$54,130,000
Orange	East/West Express - UCF to Turnpike/ Colonial Drive S.R. 50	$40,100,000
Total		**$129,130,000**

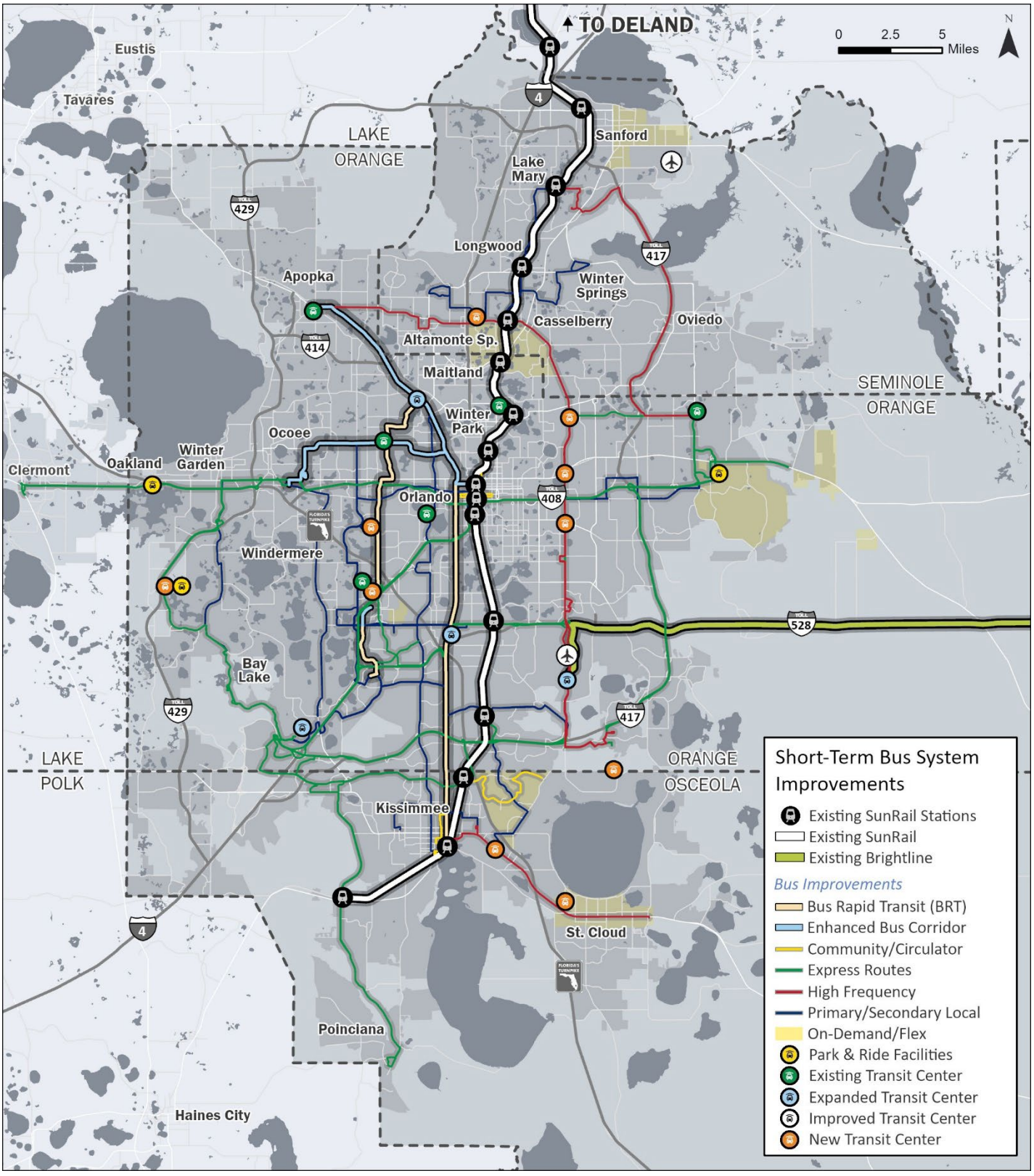
Table 7-3 | Capital Cost of Transit Centers in Short-Term

County	Project Description	Capital Cost
Orange	Enhancements to existing Disney Springs Transit Center	$3,144,750
Orange	New transit facility at Universal Orlando	$11,056,500
Orange	Expanded bus facilities at Meadow Woods SunRail Station	$2,315,250
Orange	New Transit Center at Orlando International Airport	$3,764,250
Orange	New Transit Center at Full Sail University	$16,023,000
Orange	New Transit Center at Curry Ford Road & Semoran Boulevard S.R. 436	$13,356,000
Orange	New Transit Center at Colonial Drive (S.R. 50) & Semoran Boulevard (S.R. 436)	$21,262,500
Orange	Expanded Transit Center at Valencia College West	$9,943,500
Orange	Expanded Transit Center Florida Mall	$3,144,750
Orange	Expanded Transit Center at Rosemont	$3,050,250
Orange	New Park & Ride at Daniel Webster Western Beltway (S.R. 429) & New Independence Parkway	$6,791,000
Seminole	Expansion of Altamonte Springs SunRail Station bus facilities	$2,100,000
Seminole	New Expanded transit center at Altamonte Mall	$5,600,000
Osceola	St. Cloud Transfer Center at Irlo Bronson Memorial Highway (U.S. 192) and Commerce Center Drive	$3,800,000
Osceola	NeoCity SuperStop	$3,800,000
Osceola	Irlo Bronson Memorial Highway (U.S. 192)/Narcoossee Road Transit Station	$2,800,000
Total		**$111,951,750**

Table 7-4| Bus Enhancement Operation Cost in Short-Term

Service Type	Description	Revenue Hours	Annual Operating Cost
High Frequency Bus	▪ Semoran Boulevard (S.R. 436) ▪ Orange Blossom Trail (U.S. 441) ▪ Kirkman Road ▪ Irlo Bronson Memorial Highway (U.S. 192)	538,581	$66,245,463
Express	Fourteen regional express routes: ▪ 6 routes to Disney ▪ 3 routes to Universal/International Drive ▪ 3 routes to UCF ▪ 2 routes to Downtown Orlando (along 408)	370,031	$45,513,813
Primary & Secondary Local	▪ Seven primary local routes ▪ Five secondary local routes	327,954	$40,338,342
Circulators	▪ Seven circulator Routes	94,767	$11,656,341
On-Demand/Flexible Service	▪ Eight on-demand/flexible service areas	59,976	$5,277,888
Total Annual Operating Cost			**$169,031,847**

Figure 7-4 | Short-Term Bus System Improvements



Source: LYNX and SunRail GTFS 2025

7.4.2 MID-TERM BUS SYSTEM IMPROVEMENTS

In the mid-term, from 2030 to 2034, there will be implementation of two more BRT corridors, one enhanced bus corridor, thirteen transit centers and some more bus enhancement projects. Table 7-5, Table 7-6, and Table 7-7 outline the mid-term improvements and the same are depicted in Figure 7-5. Additionally, Table B-2 in Appendix B provides a more detailed list of all bus enhancements.

Table 7-5 | Capital Cost of BRT and Priority Corridors in Mid-Term

County	Project Description	Capital Cost
BRT Corridor		
Orange/Seminole	Semoran Boulevard (S.R. 436)	$451,000,000
Orange	Colonial Drive (S.R. 50)	$353,000,000
Total		**$804,000,000**
Priority Corridor		
Orange/Seminole	Orlando Dr (U.S. 17/92) - Maitland SunRail to LCS	$81,000,000

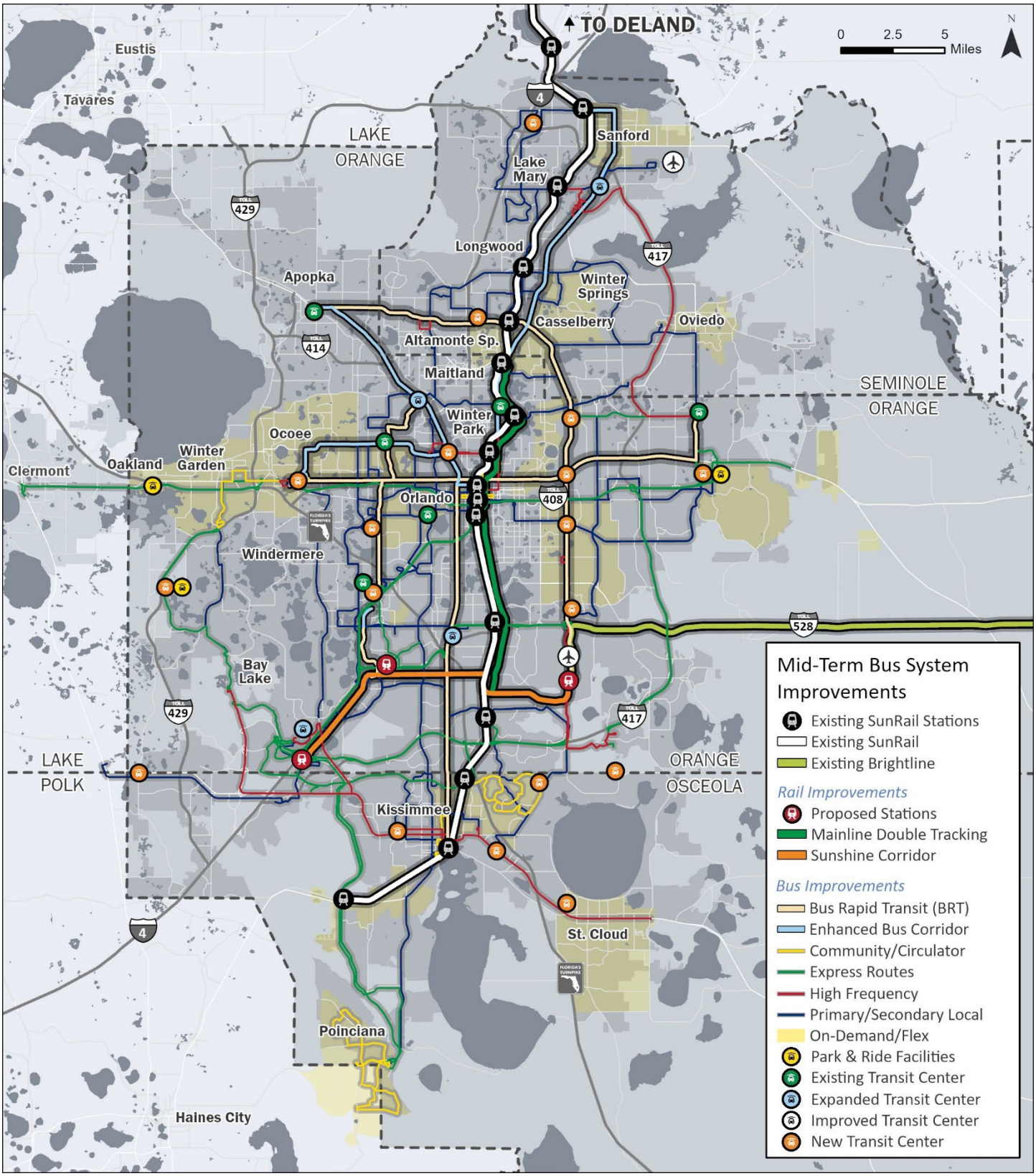
Table 7-6 | Capital Cost of Transit Centers in Mid-Term

County	Project Description	Capital Cost
Orange	New Transit Center at Lee Vista	$13,818,000
Orange	New Transit Centers at U.S. 441 & Princeton Street	$8,683,500
Orange	Enhanced bus turnaround/transit center facility at Maitland SunRail Station	$7,722,750
Orange	Waterford Lakes Transit Center	$9,450,000
Orange	New Transit Center at Health Central Hospital/West Oaks Mall/Walmart	$16,443,000
Orange	Enhancements to existing LYNX Central Station (LCS)	$3,360,000
Seminole	New Bus Loading area at Longwood SunRail Station	$6,300,000
Seminole	Expanded Facility at Seminole Centre with additional bays	$3,500,000
Seminole	New SuperStops at Seminole Towne Center and Oviedo Mall	$2,100,000
Osceola	Expansion of Kissimmee Intermodal Station	$1,800,000
Osceola	New SuperStop at Plaza del Sol	$5,600,000
Osceola	New Transit Center at Four Corners for linkages to potential Lake and Polk County services	$2,800,000
Osceola	New on-street Community Station along Osceola Parkway near Simpson Road	$700,000
Total		**$82,277,250**

Table 7-7 | Bus Enhancement Operation Cost in Mid-Term

Service Type	Description	Revenue Hours	Annual Operating Cost
High Frequency Bus	▪ Orlando Dr (U.S. 17/92) ▪ Orange Blossom Trail (U.S. 441) ▪ Colonial Drive (S.R. 50) ▪ Irlo Bronson Memorial Highway (U.S. 192) ▪ Silver Start Road	450,641	$55,428,843
Express	▪ One express service from Poinciana to Disney	17,121	$2,105,883
Primary & Secondary Local	▪ Twelve primary and secondary local routes	431,196	$53,037,108
Circulators	▪ Four circulator routes	63,087	$7,759,701
On-Demand/Flexible Service	▪ Fourteen on-demand/flexible service areas	134,946	$11,875,248
Total			**$130,206,783**

Figure 7-5 | Mid-Term Bus System Improvements



Source: LYNX and SunRail GTFS 2025

7.4.3 LONG-TERM BUS SYSTEM IMPROVEMENTS

Finally, the long-term improvements will be implemented from 2035 to 2050, where all the other improvements for the 25-year plan will be implemented. Table 7-8, Table 7-9, and Table 7-10 outline the long-term improvements and the same are depicted in Figure 7-6. Additionally, Table B-3 in Appendix B provides a more detailed list of all bus enhancements.

Table 7-8 | Capital Cost of BRT Corridors in Long-Term

County	Project Description	Capital Cost
Orange	Oak Ridge	$178,000,000
Osceola	Irlo Bronson Memorial Highway (U.S. 192)	$135,000,000
Total		**$313,000,000**

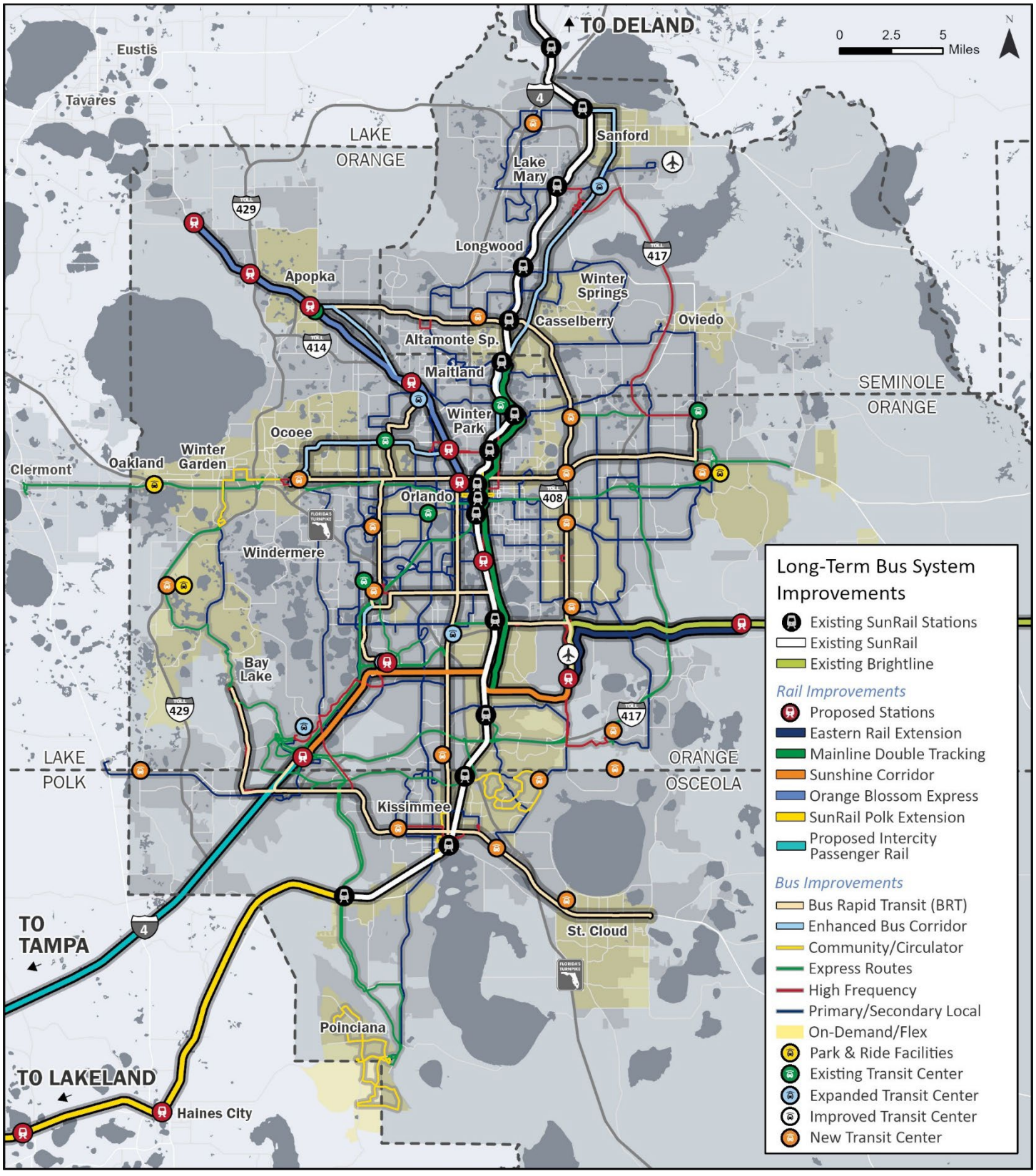
Table 7-9 | Capital Cost of Transit Centers in Long-Term

County	Project Description	Capital Cost
Orange	Enhanced bus turnaround/transit center facility at Destination Parkway SuperStop	$829,500
Orange	Enhanced bus turnaround/transit center facility at Sand Lake Road SunRail Station	$3,144,750
Orange	New Transit Center at Lake Nona/Nemours Children's Hospital	$11,655,000
Orange	Shelters and layover area along John Young Parkway near the Osceola County line for a service turnback	$829,500
Total		**$16,458,750**

Table 7-10 | Bus Enhancement Operation Cost in Long-Term

Service Type	Description	Revenue Hours	Annual Operating Cost
High Frequency Bus	▪ Orange Blossom Trail (U.S. 441) ▪ Orange Avenue ▪ Oak Ridge Road ▪ International Drive ▪ Orlando Dr (U.S. 17/92)	204,428	$25,144,644
Primary & Secondary Local	▪ Six primary local routes ▪ Six secondary local routes	250,815	$30,850,245
On-Demand/Flexible Service	Five on-demand/flexible service areas	37,485	$3,061,080
Total			**$59,055,969**

Figure 7-6 | Long-Term Bus System Improvements



Source: LYNX and SunRail GTFS 2025

8 Rail System Needs

When SunRail began operating in 2014, it was envisioned as the foundation to a greater regional transit network. As the DeLand extension nears completion ten years later, there have been a series of expansion opportunities identified across the system. These initiatives will make SunRail service better, connect more areas, and meet the changing needs of travelers. With these expansions, SunRail will play a bigger part in Central Florida's transit system, boosting the economy and making commuting easier for everyone.

8.1 SERVICE IMPROVEMENTS

The operating characteristics of the existing SunRail system will be improved upon as stated in the 2022 county transit plans. Within Orange County, future morning, afternoon peak hour and midday service will operate every 15 and 30 minutes, respectively, from Sand Lake Road to Maitland, while early morning and evening service headways will consistently operate at 60 minutes. In addition, weekend and holiday service will be added within Orange County, operating at 60 minutes headway all day.

Enhanced weekday service frequencies are provided through an extension of SunRail service from the Sand Lake Road Station to Orlando International Airport. Half of the trains from Maitland would serve the airport on 30-minute peak weekday service, while the others continue south to Meadow Woods Station and stations within Osceola County, as currently operated. All the SunRail improvements are depicted in Figure 8-1.

8.2 EXTENSION/IMPROVEMENT OF SERVICE

- OIA Direct Connect: Extension of SunRail to Orlando International Airport (OIA). The service to the airport would operate in conjunction with the existing north-south service.
- Sunshine Corridor: The Sunshine Corridor will provide new east – west service connecting the Orlando International Airport (OIA), south International Drive / Orange County Convention Center, and Disney Springs.
- Eastern Rail Extension: This is an extension from Orlando International Airport (OIA) to Innovation Way. The stretch is about 13 miles in length.
- New Edgewood Station.
- Adding a second rail track in locations currently with single track.
- Orange Blossom Express (OBE): A commuter rail service between downtown Orlando and Zellwood along the Florida Central Railroad alignment. This commuter rail service would serve seven stations, located at Zellwood, S.R. 429, Apopka, Lockhart/Rosemont, Princeton Street, Amelia Street, and Robinson Street, as identified in previous studies.
- Polk County Extension: Southern extension of the railway line from Poinciana to Lakeland with stations at Haines City, Lake Alfred, and Lakeland. This extension is outside the three-county MetroPlan Orlando area but is included as it could impact the existing rail service.

8.3 NEW STATION

The demand for increased transit along the South Orange Avenue corridor, presents an opportunity to add a new commuter rail station between the existing Orlando Health/Amtrak and Sand Lake Road SunRail station at the intersection of Holden Avenue with the SunRail corridor: the Edgewood SunRail Station.

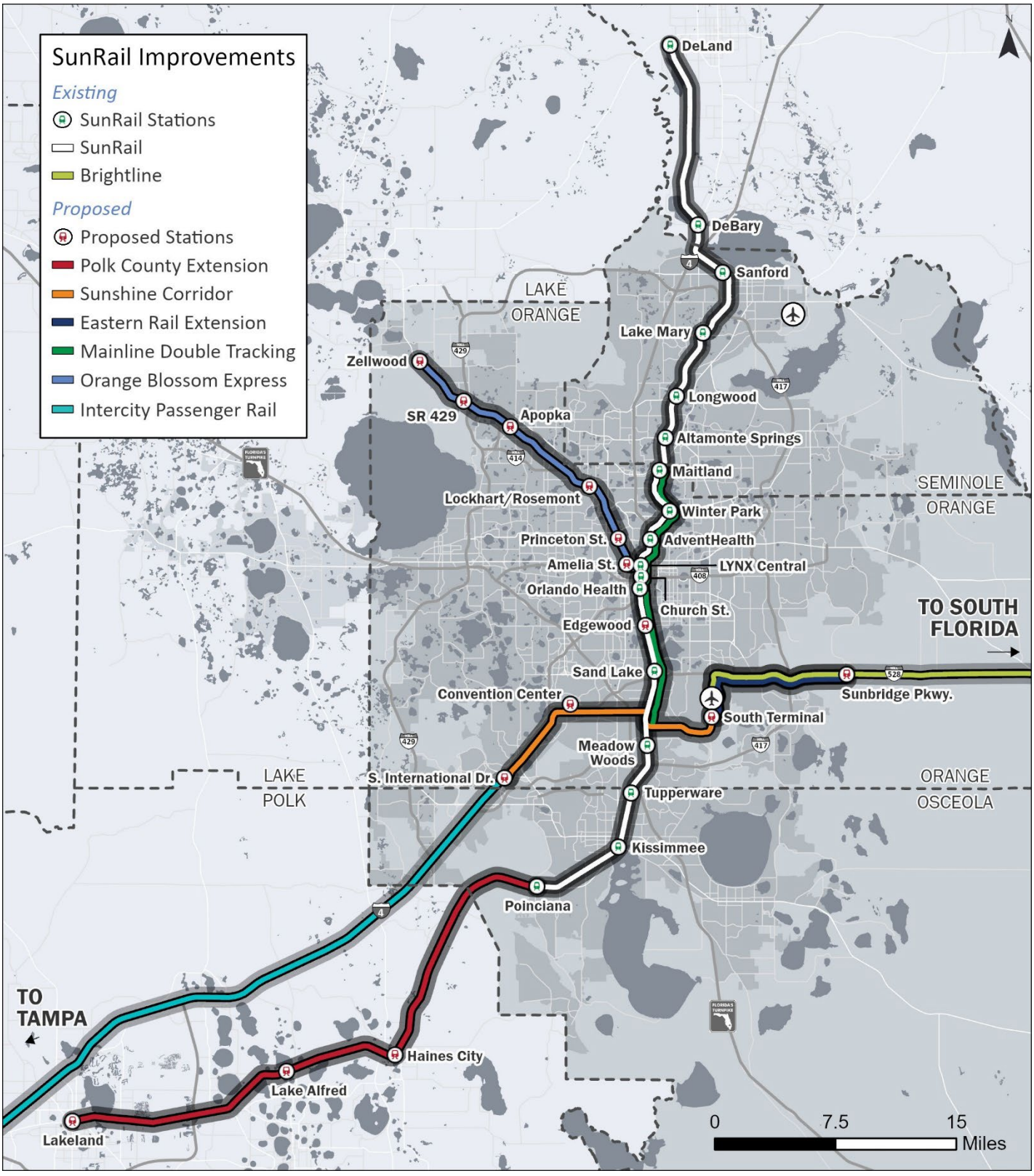
As SunRail undergoes these planned extensions, more residents and employees would be able to use the service for accessing jobs and daily travel needs. Table 8-1 presents the demographics being served before and after the planned expansion of SunRail.

- An increase in the metro population being served by 1.98%
- An increase in the number of jobs accessible by 3.82%
- An increase in the low-income population being served by 1.97%
- An increase in the number of zero-vehicle households being served by 2.31%
- An increase in the number of minority population being served by 1.82%

Table 8-1 | Demographics Served Before and After Planned Expansions

	Population	Jobs	Low-Income Population	Zero-Vehicle Households	Minority Population
Metro area	2,292,469	1,157,115	1,753,909	38,335	1,375,441
Current Demographics					
1 mile around stations	111,539	185,591	83,435	3,360	55,636
% share of metro population	4.87%	16.04%	4.76%	8.76%	4.04%
Demographics after Planned Extension					
1 mile around stations	157,003	229,790	118,077	4,245	80,663
% share of metro population	6.85%	19.86%	6.73%	11.07%	5.86%
Difference after Planned Extension					
1 mile around stations	45,464	44,199	34,642	885	25,027
% share of metro population	1.98%	3.82%	1.97%	2.31%	1.82%

Figure 8-1 | SunRail Improvements



Source: SunRail 2025

8.4 IMPLEMENTATION AND FINANCIAL PLAN

Improvements to SunRail will be implemented between 2030 to 2050 (which included mid-term and long-term projects). Table 8-2 outlines the projects and associated capital costs.

Table 8-2 | Medium- and Long-Term Implementation with Capital Cost

Project	Capital Cost
Mid-Term	
Existing SunRail Double Tracking	$75,000,000
Sunshine Corridor	$4,830,000,000*
Long-Term	
Edgewood Station	$18,000,000
Orange Blossom Express	$1,035,000,000
Eastern Rail Extension	$345,000,000
Total	**$6,303,000,000**

Note: Sunshine Corridor capital cost estimate is for the highest possible alternative. Additional information about the alternatives being studied can be found in the FDOT TCAR Study.

9 The Future of Transit

In many communities, transit ridership on a per capita basis has been declining for decades; with the advent of transportation network companies (TNCs) such as UBER and Lyft, micromobility devices such as electric scooters and electric bikes, and most recently the COVID-19 pandemic, transit ridership declines have accelerated in some regions. Land development patterns centered around auto-mobility have made it challenging to provide high quality transit service in many communities, further contributing to ridership declines on a per capita basis. Additional known and unknown trends will continue to affect how transit services are funded and delivered within the region. Although there is uncertainty about the future, understanding the general trends can help policy and decision makers develop flexible plans that consider an uncertain future. The following sections touch on some trends that have the potential to affect future transit ridership.

9.1 AUTOMATED, CONNECTED, ELECTRIC AND SHARED (ACES)

As automated vehicle technology improves, autonomous vehicles can provide point-to-point travel more effectively than fixed-route transit, especially for shorter rides. Autonomous ride-hailing services, like the one offered by Waymo One in San Francisco, operates like a traditional TNCs, but without the cost of the driver. For people who own autonomous vehicles, there are also future scenarios where the vehicle can drop the person at their ultimate destination, like a downtown office building, and then return to a home base. This type of activity could increase congestion on roads because there would be zero-occupant vehicles operating on roadways, which might make operating fixed-route transit less reliable and could eliminate the cost of parking in downtown areas as a barrier to driving to work.

To take advantage of this technology, there are opportunities to better integrate autonomous vehicle operations in transit operations. Several communities in Central Florida are engaged in the piloting of small autonomous shuttles, including the SWAN Shuttle (Orlando), Move Nona (Lake Nona), and CraneRIDES (Altamonte Springs), all operated by Beep. The primary purpose of these pilot programs is to demonstrate proof of concept, gain public acceptance related to the technology, and better understand the type of infrastructure that is needed to support larger scale deployment of autonomous transit vehicles, especially as the technology evolves. For example, when CraneRIDES was first envisioned in Altamonte Springs, there was the expectation that travel on the higher speed roadways would need to occur in a dedicated lane, but since the initial planning studies, the technology has advanced such that newer autonomous shuttles will be able to travel at speeds up to 35 miles per hour and travel on arterial roads, expanding the reach of the service. These smaller autonomous shuttles can provide important connections between lower density neighborhoods, and activity centers and major transit hubs. This could provide an important connection to higher capacity transit, like SunRail or Bus Rapid Transit (BRT), and be more cost competitive than an autonomous hailed ride.

Under some future scenarios, autonomous vehicles might result in greater levels of suburban sprawl as the time cost of travel is reduced. If you can work or engage in other activities while a car takes you to work, you might be more likely to live farther away from your place of work. This trend could increase overall vehicle miles of travel within a region, potentially resulting in greater levels of congestion on some corridors. As many corridors within the MetroPlan Orlando region are built to their ultimate right-of-way, it may be challenging to add capacity to accommodate increased vehicle miles traveled under some future scenarios. There are expected to be some future capacity benefits from autonomous vehicles operations that could be offset by increased demand. Provision of transit-only lanes could help off-set the potential for transit vehicles to be delayed by zero-passenger vehicle travel, which may be challenging under the current legislative landscape.

The electrification of the vehicle fleet could also affect how transit services are delivered in the region. Currently, the buses used to run the LYMMO services are electric. As fuel efficiency standards increase and more people purchase electric vehicles, gas taxes are expected to decline, which could affect the overall funding available to transit agencies. Identifying alternative funding mechanisms, such as through sales taxes, will be critical to maintaining and expanding transit service in the region.

9.2 TRANSIT'S NEW NORMAL?

Even before the COVID-19 pandemic, transit ridership was falling in many cities and few systems in the United States have returned to pre-pandemic ridership levels. Factors that were previously associated with transit ridership, like work and telework have shifted, and new variables in estimating transit ridership, like transit hesitancy, can make planning for transit even more challenging. Understanding how work from home and other trends might affect future route and service planning is critical.

In many cities, transit hesitancy is emerging from research as a contributing factor in ridership declines, and a failure to attract new riders, especially younger riders. Factors such as perceived asocial behaviors on transit vehicles, safety or security considerations at transit stops (with documented gender differences), and an increased unpredictability of service caused by labor shortages and budget shortfalls, are all documented factors in other regions contributing to a hesitancy of people to make transit part of their daily routine and not seen as the travel option of last resort. Understanding how these factors might be affecting transit use in the MetroPlan Orlando region will be important to address.

9.3 CONNECTION TO TRANSPORTATION SAFETY

As stated by the American Public Transportation Association, public transit is 10 times safer per mile than a private vehicle and people reduce their chances of being in an accident by 90% by choosing public transit. This makes traveling by bus one of the safest ways to travel in our region, but accessing the bus stop can be one of the most dangerous. As part of the MetroPlan Orlando Regional Vision Zero Action Plan, transit boardings and alightings were correlated to the regional High Injury Network (HIN) – roads within the region where a disproportionate number of fatal and severe injury crashes occur. Approximately half of the regions boardings and alightings occur on the HIN – reflecting about 2% of our roads. Accessing bus stops on these roads can often be challenging, especially as marked and controlled crossing locations are often located away from transit stop locations, requiring out of direction travel for transit riders or mid-block crossings of multilane, high speed roads. There are not continuous sidewalks to some bus stops, and many are lacking shelters. As the projects, programs and strategies identified in the Regional Vision Zero Action Plan are implemented, there are opportunities to improve access to transit stops within the region, creating a more transit supportive environment.

9.4 TECHNOLOGY

In addition to autonomous vehicles, other types of technology have the potential to improve the rider's experience, decrease headways, and improve the safety of transit riders. Some technologies have been around for decades, such as transit vehicle signal priority or preemption, but others are emerging, such as headway-management platforms, collision avoidance software, and pedestrian alert systems, which aid drivers in identifying nearby pedestrians, providing drivers with warnings and alerts. Providing additional real-time transit information through the Paw Pass app and fare integration between LYNX and SunRail can help improve the overall rider experience. Fare integration could also allow for regional fare capping and other payment strategies that can boost overall ridership.

Monitoring and understanding these future trends will be critical in the delivery of cost-effective transit service that maintains and improves ridership levels.

10 Transit Investment

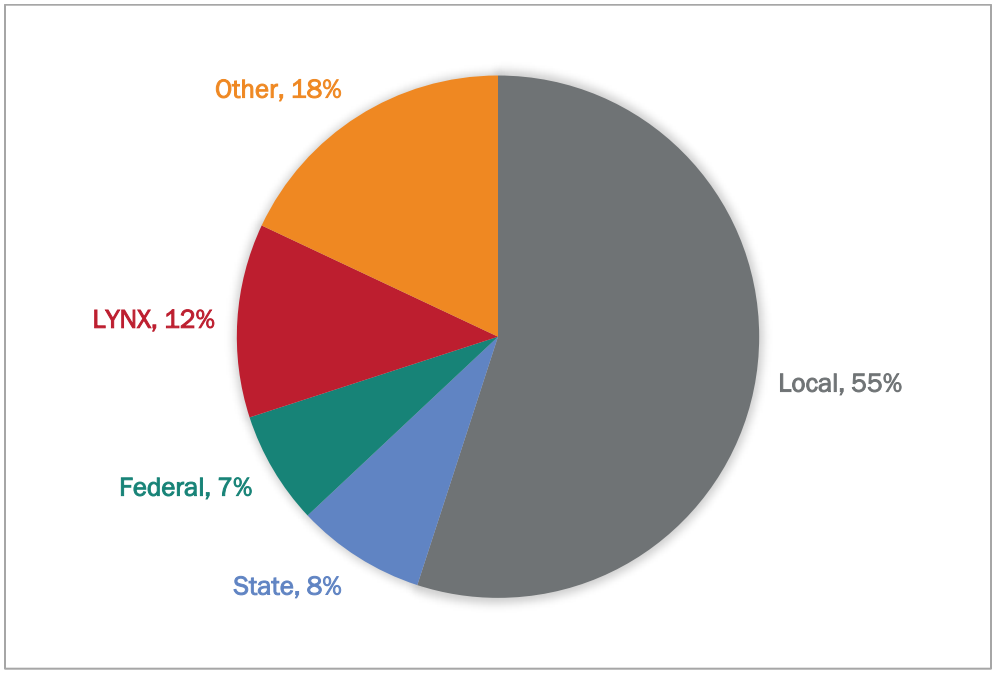
The success and sustainability of any transit vision plan hinges upon robust financial backing. Thus, it is imperative to review existing funding sources and explore potential avenues for future investment. Understanding the current financial landscape provides a solid foundation for devising strategies to support the expansion, enhancement, and maintenance of the transit infrastructure. This section delves into an analysis of the funding mechanisms currently in place, followed by an exploration of innovative and sustainable funding sources to propel the transit vision forward.

10.1 ANALYSIS OF CURRENT FUNDING SOURCES

10.1.1 SOURCES OF OPERATING FUNDS

LYNX's operational budget of $192,403,670 for 2024 draws from diverse funding sources (Figure 10-1), each playing a pivotal role in sustaining its services. The largest proportion, constituting 55% of the total budget, is derived from local revenue, indicative of a strong community commitment to public transit from the three counties. Complementing this substantial local support, LYNX also benefits from state and federal revenue streams, contributing 8% and 7.96%, respectively. These allocations underscore the significance of governmental backing in bolstering LYNX's operational capabilities and ensuring its broader accessibility. Additionally, LYNX secures 12% of its budget from internally generated funding including customer fares, contract services and advertisement, demonstrating a degree of self-sufficiency within its operational framework. Furthermore, other revenues constitute the remaining 18% of the funds. Collectively, these revenue streams delineate a robust financial foundation for LYNX, enabling the organization to fulfill its mission of facilitating efficient and reliable transit services for the community.

Figure 10-1 | Sources of Operating Funds (LYNX)



Source: LYNX FY-2024

Funds from local sources that make the greatest share of the operating funds come from different funding partners within the region. Table 10-1 details the funding partners and the funding agreements made with LYNX in 2023.

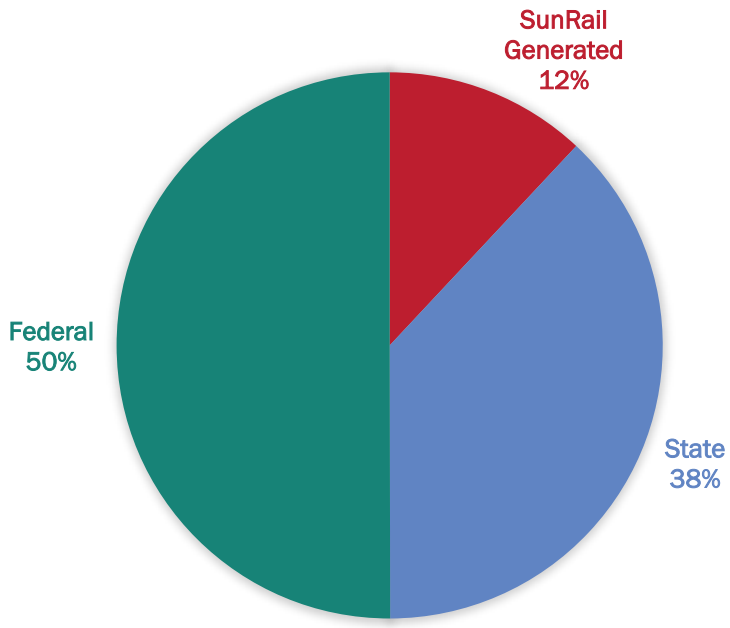
Table 10-1 | LYNX Operating Contributions by Local Jurisdiction

Jurisdiction	Amount	% Share
Orange County	$59,280,043	66.38%
Osceola County	$10,464,246	11.72%
Seminole County	$10,248,484	11.48%
City of Orlando	$4,078,006	4.57%
City of Orlando-LYMMO	$2,861,057	3.20%
FDOT (SunRail Feeder Route)	$1,713,747	1.92%
Reedy Creek	$441,445	0.49%
City of Altamonte Springs	$120,900	0.14%
City of Sanford	$93,000	0.10%
Total	$89,300,928	

Source: LYNX FY-2024

The total operating budget for SunRail in 2023 amounts to $67,887,771, with contributions from various sources; federal, state and internally generated. Figure 10-2 shows the portion contributed by the various sources.

Figure 10-2 | Sources of Operating Funds (SunRail)

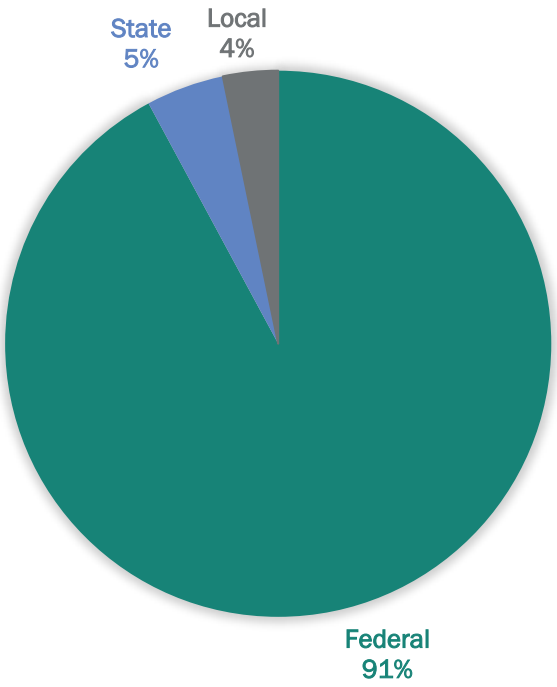


Source: SunRail FY-2023 NTD Reports

10.1.2 SOURCES OF CAPITAL FUNDS

The capital budget fund sources for LYNX (Figure 10-3) indicate a significant reliance on federal revenue, comprising 91% of the total budget of $134,100,650. This suggests a heavy dependence on federal funding for the organization's capital projects and initiatives. State grants contribute a smaller but still notable portion, accounting for 5% of the total budget at $6,839,683. Local revenue represents the smallest proportion at 4%, totaling $5,960,609. The capital funds were spent on the expansion and replacement of vehicles, updates to the LYMMO Orange lanes, site selection and development of the Southern Operations Base, passenger amenities, security, and support equipment.

Figure 10-3 | Sources of Capital Funds (LYNX)



Source: LYNX FY-2024

Capital funds from local distributions come from the three counties. Table 10-2 details the amounts contributed.

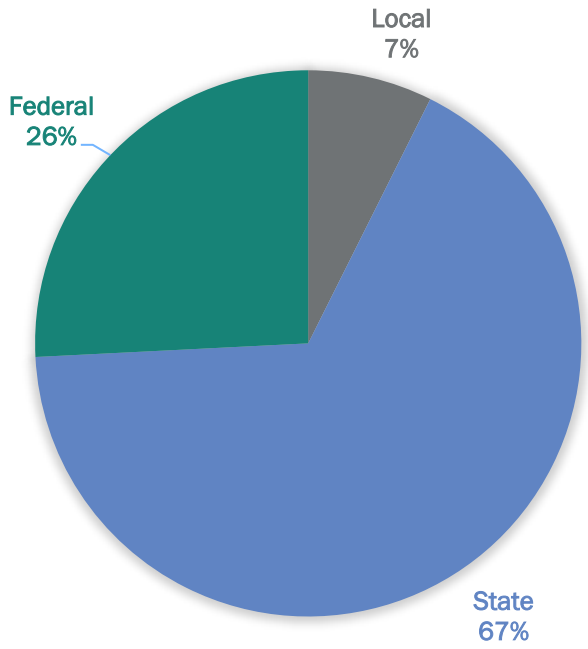
Table 10-2 | LYNX Capital Contributions by Local Jurisdiction

Jurisdiction	Amount	% share
Orange County	$2,833,556	78.11%
Osceola County	$417,228	11.50%
Seminole County	$376,712	10.38%
Total	$3,627,496	

Source: LYNX FY-2024

SunRail generated $59,942,563 of capital funding in 2023. The majority (67%) of this came from state sources, followed by federal government and local sources (Figure 10-4).

Figure 10-4 | Sources of Capital Funds (SunRail)



Source: SunRail FY-2023 NTD Reports

10.2 EXISTING FEDERAL FORMULA GRANTS

The growing urban population of the Orlando Metropolitan area coupled with additional revenue miles on behalf of the service expansion plans would ensure additional apportionments from Federal Transit Administration (FTA) to support LYNX's services in future. The estimate of the assistance from FTA is based on the historic apportionment's unit value of service miles via 5307/5340 and 5339 formula grants (Table 10-3 and Table 10-4). The large increase from 2023 to 2024 is due to the FTA using the 2020 Census in 2024 for the first time. Due to the fast growth of the Orlando and Kissimmee urban areas, Central Florida received a larger portion of these funds.

Table 10-3 | Combined 5307/5340 Apportionments

Urban Area	2022	2023	2024
Orlando	$42,603,180	$43,466,137	$53,336,707
Kissimmee	$5,983,602	$6,102,184	$8,721,073
Total	**$48,586,782**	**$49,568,321**	**$ 62,057,780**

Table 10-4 | 5339 Bus and Bus Facility Apportionments

Urban Area	2022	2023	2024
Orlando	$2,464,167	$2,542,413	$2,959,170
Kissimmee	$497,470	$511,839	$648,042
Total	**$2,961,637**	**$3,054,252**	**$3,607,212**

A portion of 5307 and 5339 formula grants are derived from service provided, based on revenue service miles. The total revenue miles per service expansion plan for the next 20 years is 40,253,973. The existing service revenue miles are 17,078,335 (LYNX NTD 2023); this results in a 23,175,638 net increase in the revenue miles. Based on the formula used in 2024, this increase in miles would result in an additional assistance of $17,822,066 annually from FTA via formula grants.

10.3 CURRENT TRANSPORTATION REVENUE SOURCES

Table 10-5 presents Florida's transportation fuel tax sources, fuel types and rates, and use eligibility as reported by the FDOT. Fuel excise tax is a source of federal tax. The sources of state tax are fuel sales tax, State Comprehensive Enhanced Transportation System (SCETS) tax, constitutional fuel tax, county fuel tax, and municipal fuel tax.

Table 10-5 | Federal and State Revenue Sources

Level	Type	Fuel Type	Maximum Rate	Use
Federal	Fuel Excise Tax	Motor Fuel	18.4 ¢/gallon	2.86¢ for mass transit.
		Diesel Fuel	24.4 ¢/gallon	0.1¢ for leaking in-ground fuel tanks. Remainder for roads and bridges.
State (distributed to FDOT)	Fuel Sales Tax	Motor Fuel & Diesel Fuel	17.0 ¢/gallon	At least 15% of FDOT receipts are dedicated to public transportation. Remainder for any legitimate state transportation purpose.
	SCETS Tax	Motor Fuel & Diesel Fuel	9.4 ¢/gallon	
State (distributed to local governments)	Constitutional Fuel Tax	Motor Fuel & Diesel Fuel	2.0 ¢/gallon	Acquisition, construction, and maintenance of roads. Can be used for matching state/federal funding.
	County Fuel Tax	Motor Fuel & Diesel Fuel	1.0 ¢/gallon	Any legitimate county transportation purpose.
	Municipal Fuel Tax	Motor Fuel & Diesel Fuel	1.0 ¢/gallon	Any legitimate municipal transportation purpose

Source: Florida's Transportation Tax Sources: A Primer, 2024

10.4 POSSIBLE FUTURE FUNDING STRATEGIES

To realize the objectives outlined in the Transit Vision Master Plan, it is crucial to explore potential future funding sources. This section focuses on identifying innovative avenues for financial support to sustain and expand the transit infrastructure. Federal and State funding sources are discussed here with a focus on sources suitable for capital infrastructure improvements.

10.4.1 FEDERAL SOURCES

UNITED STATES DEPARTMENT OF TRANSPORTATION-WIDE

Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants

This USDOT-wide program provided $1.5 billion in FY 2022 funding for road, rail, transit, and port projects that promise to achieve national objectives and has awarded over $8.935 billion in grants to projects since 2009.

Infrastructure For Rebuilding America (INFRA) Grants, previously known as Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) Grant Program

This program provides funding for highway and freight projects of national or regional significance. USDOT seeks INFRA applications for projects that apply innovative technology, delivery, or financing methods with proven outcomes to deliver projects in a cost-effective manner.

Multimodal Projects Discretionary Grant Program

This grant opportunity provides funding for major infrastructure projects of regional or national significance. The Department will make awards with a focus on supporting projects that improve safety, economic competitiveness, equity, and climate and sustainability.

FEDERAL TRANSPORTATION ADMINISTRATION/FEDERAL HIGHWAY ADMINISTRATION FUNDS

Capital Improvement Grant New Starts

This is the most used Federal funding source for fixed guideway projects, including, but not limited to new light rail transit (LRT) and Bus Rapid Transit (BRT) projects. This program is funded annually at approximately $2.3 billion.

Grants for Buses and Bus Facilities Program

Provides funding through a competitive allocation process to states and transit agencies to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities.

Flexible Funding Programs – Transferring Title 23 Funds from FHWA to FTA

This refers to the transfer of highway funds to FTA for eligible transit projects to be administered under Chapter 53 of Title 49 or the transfer of transit funds to FHWA for eligible highway projects to be administered under Title 23. Section 104 of Title 23 U.S.C. preserves the option for FHWA to transfer funds to FTA for transit capital projects and eligible operating activities that have been designated as part of the metropolitan and statewide planning and programming process.

Surface Transportation (STP) Funds and Transportation Alternatives Program (TAP) for Transit Projects

FHWA STP funds are eligible for a variety of highway-related activities and are also available to cover the capital cost of any public transportation projects, which may include vehicles and facilities (publicly or privately owned) that are used to provide intercity passenger bus service. This could be a source for new or redeveloped commuter rail stations. In addition, STP funds are available for surface transportation planning projects as well as activities under the newly authorized Transportation Alternatives Program (TAP).

Strengthening Mobility and Revolutionizing Transportation (SMART)

The Bipartisan Infrastructure Law established the SMART grant program, allocating $100 million annually from FY 2022 to FY 2026 to support public sector agencies in implementing advanced smart community technologies to enhance transportation efficiency and safety. The program operates in two stages: Stage 1 offers grants up to $2 million for up to 18 months, open to any eligible entity. Recipients of Stage 1 grants can apply for Stage 2, which provides up to $15 million for projects over 36 months. Only those awarded a Stage 1 grant can apply for Stage 2.

Congestion, Mitigation and Air Quality (CMAQ) Funds

The CMAQ program continues to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide, or particulate matter—nonattainment areas—and for areas that were out of compliance but have now met the standards—maintenance areas. Transit investments, including transit vehicle acquisitions and construction of new facilities or improvements to facilities that increase transit capacity are eligible for CMAQ funds.

FEDERAL RAILROAD ADMINISTRATION

Consolidated Rail Infrastructure and Safety Improvements Program (CRISI)

The purpose of this program is to invest in a wide range of projects to improve railroad safety, efficiency, and reliability; mitigate congestion at both intercity passenger and freight rail chokepoints; enhance multi-modal connections; and lead to new or substantially improved Intercity Passenger Rail corridors.

Corridor Identification and Development (Corridor ID) Program

This program was created by the Infrastructure Investment and Jobs Act to guide the development of new and enhanced intercity passenger rail services that will help bolster economic growth throughout the United States. The program is active but not currently accepting applications.

Federal-State Partnership for Intercity Passenger Rail Grant Program

This program provides funding for capital projects that reduce the state of good repair backlog, improve performance, or expand or establish new intercity passenger rail service, including privately operated intercity passenger rail service, if an eligible applicant is involved. The program is active but not currently accepting applications.

10.4.2 STATE SOURCES

FDOT Strategic Intermodal System (SIS) Program

The purpose of these formula funds is to focus the State's limited transportation resources on the facilities most significant for interregional, interstate, and international travel. To be designated as part of the SIS, transportation facilities must meet criteria related to transportation or economic activity, as well as screening factors related to potential community and environmental impacts.

FDOT New Starts Transit Funding

This fund was established by the 2005 Florida Legislature to assist local governments in developing and constructing fixed guideway and bus rapid transit projects to accommodate and manage urban growth and development. A secondary purpose of the program is to leverage State of Florida funds to generate local transportation revenues and secure FTA New/Small Starts Program funding for Florida projects. NSTP funds may be used to support final design, right-of-way acquisition, and construction projects.

Intermodal Development Program

As indicated in the FDOT Transit Resource Guide, the Intermodal Development Program was developed to provide funding for major capital investments in fixed-guideway transportation systems; access to airports and other transportation terminals; and construction of intermodal or multimodal terminals. Eligible projects include major capital investments in public rail and fixed-guideway transportation facilities and systems which provide intermodal access; road, rail, intercity bus service, or fixed-guideway access to, from, or between seaports, airports, and other transportation terminals; construction of intermodal or multimodal terminals; development and construction of dedicated bus lanes; and projects that otherwise facilitate the intermodal or multimodal movement of people and goods.

Public Transit Block Grant Program

The Public Transit Block Grant Program, as indicated in the FDOT Transit Resource Guide, was established by the Florida Legislature to provide a stable source of funding for public transit. Public Transit Block Grant funds may be used for eligible capital and operating costs of providing public transit service. Program funds may also be used for transit service development and transit corridor projects.

Transit Corridor Program

The Transit Corridor Program provides funding to Community Transportation Coordinators or transit agencies to support new services within specific corridors when the services are designed and expected to help reduce or alleviate congestion or other mobility issues within the corridor. Eligible projects must be identified in a Transit Development Plan, Congestion Management System Plan, or other formal study undertaken by a public agency.

County Incentive Grant Program (CIPG)

According to the FDOT Transit Resource Guide, the purpose of the program is to provide grants to counties to improve a transportation facility (including transit) that is located on the State Highway System or that relieves traffic congestion on the State Highway System. Eligible projects include those that improve the mobility on the State Highway System (SHS); encourage, enhance, or create economic benefits; foster innovative public-private partnerships; maintain or protect the environment; enhance multi-modalism and safety; and those that advance other projects. New technologies such as intelligent transportation systems that enhance the efficiency of projects are also eligible.

Intermodal Access Program

The Intermodal Access Program aids with major capital investment in fixed guideway transportation systems; access to seaports, airports, and other transportation terminals, providing for the construction of intermodal or multimodal terminals; and otherwise facilitate the intermodal or multimodal movement of people and goods.

11 Conclusion and Next Steps

The Transit Vision Master Plan represents a pivotal milestone in shaping the future of public transit in the Central Florida region. By addressing current challenges, identifying strategic opportunities, and outlining a comprehensive roadmap for transit development, this plan not only meets the evolving needs of our communities but also aligns with broader goals of sustainability and enhanced quality of life.

Looking ahead, the next crucial step involves the integration of this Transit Vision Master Plan into the 2050 Metropolitan Transportation Plan (2050 MTP). By embedding the proposed projects and initiatives in this document into the transit element of the 2050 MTP, we solidify our commitment to advancing transit infrastructure, fostering economic growth, and promoting equitable access across our region. As technologies evolve and demographic shifts occur, this forward-looking approach will guide future investments and policies, ensuring that Central Florida remains a model for sustainable and efficient public transportation systems.

After detailing a range of federal and state funding opportunities essential for advancing our Transit Vision Master Plan, it is evident that navigating these options requires a strategic approach. Currently, none of the three counties LYNX serves have a dedicated funding source, which could have built some stability in the system. Moving forward, it will be imperative to cultivate partnerships with local stakeholders.

Through continued collaboration, innovation, and strategic planning, we are poised to realize a future where transit not only meets but exceeds the expectations of our residents, commuters, and visitors alike. Together, we will build a transportation network that enhances connectivity, supports vibrant communities, and preserves the natural beauty of our region for generations to come.

Appendix A – Service Types and Attributes

Stop spacing varies by service type. It is usually dependent on the community being served and reflects the different abilities of riders with regards to walking to a bus stop. Table A-1 shows the stop spacing by service type and the density required.

Table A-1 | Stop Spacing by Service Type

Service Type Higher Density	Higher Density (<7,500/sq. mile)	Moderate Density (4,000-7,500/sq. mile)	Lower Density (>4,000/sq. mile)
High Frequency	only major hubs	only major hubs	only major hubs
Express	1/4 mile to 1/2mile	1/4 mile to 1/2mile	1/2mile to 1 mile
Local	800 to 1,200 feet	1,000 to 1,500 feet	1/4 mile to 1/2mile
Community/Circulator	600 to 800 feet	800 to 1,200 feet	800 to 1,200 feet
On-Demand/Flexible	point-to-point	point-to-point	point-to-point

Table A-2, Table A-3, and Table A-4 summarize the span and headway of all the service types by day of the week.

Table A-2 | Weekday Service Span and Headway by Service Type

Type	Service Span			Headway					
	Start	End	Hours	Early	AM	Mid	PM	Eve	Night
High Frequency	4:00 AM	12:59 AM	21.0	30	20	20	20	30	30
Limited Stop	4:00 AM	12:59 AM	21.0	20	20	20	20	20	20
Regional Exp.	5:00 AM	9:59 PM	17.0	30	30	30	30	30	30
Commuter Exp.	6:00 AM	5:59 PM	12.0	n/a	30	n/a	30	n/a	n/a
Primary Local	4:00 AM	12:59 AM	21.0	30	30	30	30	30	30
Secondary Local	6:00 AM	11:59 PM	18.0	n/a	60	60	60	60	60
Circulator	6:00 AM	10:59 PM	17.0	n/a	10	10	10	15	15
On-Demand	4:00 AM	12:59 AM	21.0	n/a	n/a	n/a	n/a	n/a	n/a

Table A-3 | Saturday Service Span and Headway by Service Type

Type	Service Span			Headway					
	Start	End	Hours	Early	AM	Mid	PM	Eve	Night
High Frequency	4:00 AM	12:59 AM	21.0	30	30	30	30	30	30
Limited Stop	4:00 AM	12:59 AM	21.0	20	20	20	20	20	20
Regional Exp.	5:00 AM	9:59 PM	17.0	60	30	30	30	60	60
Commuter Exp.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Primary Local	4:00 AM	12:59 AM	21.0	60	30	30	30	60	60
Secondary Local	6:00 AM	11:59 PM	18.0	n/a	60	60	60	60	60
Circulator	6:00 AM	10:59 PM	17.0	n/a	15	15	15	15	15
On-Demand	4:00 AM	11:59 PM	20.0	n/a	n/a	n/a	n/a	n/a	n/a

Table A-4 | Sunday Service Span and Headway by Service Type

Type	Service Span			Headway					
	Start	End	Hours	Early	AM	Mid	PM	Eve	Night
High Frequency	5:00 AM	12:59 AM	20.0	30	30	30	30	30	30
Limited Stop	5:00 AM	12:59 AM	20.0	20	20	20	20	20	20
Regional Exp.	6:00 AM	9:59 PM	16.0	n/a	30	30	30	60	60
Commuter Exp.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Primary Local	5:00 AM	12:59 AM	20.0	60	30	30	30	60	60
Secondary Local	6:00 AM	9:59 PM	16.0	n/a	60	60	60	60	60
Circulator	6:00 AM	9:59 PM	16.0	n/a	15	15	15	15	15
On-Demand	5:00 AM	11:59 PM	19.0	n/a	n/a	n/a	n/a	n/a	n/a

Appendix B – Bus Enhancements Implementation

Table B-1 | Bus Enhancements in Short-Term

County	Project Description	Revenue Hours
Orange	101A – S.R. 436: Full Sail University to Orlando International Airport	44,579
Orange	102B – U.S. 441: Downtown Orlando to Florida Mall	28,941
Orange	105 – Pine Hills/Kirkman: Rosemont Transit Center to Universal Orlando	53,119
Orange	201 – S.R. 436: Full Sail University to Orlando International Airport	58,366
Orange	202 – U.S. 441: Apopka to Florida Mall	55,920
Orange	205 – Pine Hills/Kirkman: Pine Hills Transit Center to Universal Orlando	36,848
Orange	300 – Downtown Orlando to Disney Springs	17,949
Orange	301 – Pine Hills to Disney Springs/Walt Disney World	47,208
Orange	302 – Orlando International Airport to Disney Springs	25,167
Orange	303 – Orlando International Airport to Florida Mall/ South International Drive/Universal Orlando	29,879
Orange	306 – Downtown Orlando to Universal Orlando	13,807
Orange	307 – Downtown Orlando to South International Drive	20,047
Orange	308 – University of Central Florida to Downtown Orlando	20,666
Orange	311B – University of Central Florida to Lake Nona/ Meadow Woods SunRail Station	29,340
Orange	312 – Ocoee/Health Central to Walt Disney World	28,245
Orange	314 – South S.R. 436 to Disney Springs	33,680
Orange	400 – Clermont/West Orange Park & Ride/Ocoee-Health Central to Downtown Orlando	6,885
Orange	401A/B – Waterford Lakes/Bithlo to Downtown Orlando	6,120
Orange	506 – Lake Underhill/UCF: Downtown Orlando to University of Central Florida	43,662
Orange	509 – Sand Lake Connector: Sand Lake Road SunRail Station to Universal Orlando	33,049
Orange	514 – Hiawassee Road/Turkey Lake Road: Pine Hills Transit Center to Destination Parkway Transit Center	49,521
Orange	517 – South International Drive: Destination Parkway Transit Center to Disney Springs Transit Center	22,654
Orange	518 – OIA/Meadow Woods: Destination Parkway Transit Center to Orlando International Airport	37,266
Orange	612 – Winter Garden Road / Ficquette Road: Ocoee to Walt Disney World	20,069
Orange	613 – Old Winter Garden Road: Downtown Orlando to Valencia West	12,908
Orange	700 – LYMMO Orange Downtown: Creative Village – LYNX Central Station / Orlando City Hall	9,207
Orange	701 – LYMMO Lime: Creative Village – South Hughey Avenue – Central Boulevard	9,207
Orange	702 – LYMMO Grapefruit: East-West – Central Boulevard – Church Street – South Street	15,354
Orange	703 – LYMMO Tangerine: LYNX Central Station - Uptown – Orlando City Hall	16,884
Orange	703A – LYMMO N. Quarter: LYNX Central Station – Uptown – AdventHealth SunRail Station	15,354
Orange	821 – Bithlo NeighborLink: anchor at Waterford Lakes Town Center	14,994
Orange	866 – Waterford Lakes/Avalon Park: anchor at Waterford Lakes Town Center	7,497
Orange	878 – Tangelo Park: anchors at Universal Orlando and Southpark Walmart	7,497
Seminole	101C – S.R. 436: Orlando International Airport to Altamonte Springs (101C replaces 101A from Orange County Plan)	58,357
Seminole	101D – S.R. 436: Altamonte Springs to Apopka	35,181
Seminole	201A - S.R. 436: Orlando International Airport to Altamonte Springs (201A replaces 201 from Orange County Plan)	75,127
Seminole	201B - S.R. 436: Altamonte Springs to Apopka	36,512

County	Project Description	Revenue Hours
Seminole	309 – Altamonte Springs to University of Central Florida	25,215
Seminole	310 – Lake Mary/Sanford to University of Central Florida	17,949
Seminole	615 – Altamonte Springs / Casselberry / Winter Springs	17,288
Seminole	618 – Ronald Reagan / Lake Mary-Longwood	14,438
Seminole	863 – East Sanford NeighborLink/Midway	7,497
Seminole	874 – South Altamonte NeighborLink	7,497
Osceola	102D – U.S. 441/Florida Mall to Kissimmee (replaces 102C from Orange County Plan)	32,955
Osceola	111- U.S. 192/ Kissimmee Intermodal Center to St. Cloud	37,313
Osceola	304 – Tupperware SunRail Station to Disney Springs	17,410
Osceola	311A – Tupperware SunRail Station to UCF (replaces 311B from Orange County Plan)	30,464
Osceola	505C – John Young Parkway (replaces 505B from Orange County Plan)	39,231
Osceola	510 – Landstar Road/ Meadow Woods to NeoCity	27,034
Osceola	607 – Donegan / Carroll / Kissimmee	10,834
Osceola	704 – Buena Ventura Lakes / Florida Parkway	16,467
Osceola	709 – Kissimmee Connector	12,294
Osceola	831 – Buena Ventura Lakes NeighborLink	7,497
Osceola	872 – St. Cloud NeighborLink	7,497

Table B-2 | Bus Enhancements in Mid-Term

County	Project Description	Revenue Hours
Orange	100 – Mills Ave/U.S. 17/92: Downtown Orlando to Altamonte Springs SunRail Station	29,942
Orange	102A – U.S. 441: Apopka to Downtown Orlando	36,514
Orange	103 – Silver Star Road: Health Central/Ocoee to AdventHealth SunRail Station	51,531
Orange	104 – S.R. 50: University of Central Florida to Downtown Orlando	69,702
Orange	204 – S.R. 50: University of Central Florida to Ocoee/Health Central/West Oaks Mall	72,444
Orange	500 – S.R. 434/Forest City Road: Rosemont Transit Center to Seminole State College Altamonte Springs Campus	8,513
Orange	501 – Goldenrod Road: Full Sail University to Lee Vista Transit Center	27,214
Orange	503 – Rosemont/Winter Park: Rosemont Transit Center to Full Sail University	28,234
Orange	507 – Raleigh/Gore: Downtown Orlando to Valencia College West	28,564
Orange	508 – Curry Ford Road: Downtown Orlando to Waterford Lakes Town Center	35,395
Orange	519 – Winter Park/Orlando: Downtown Orlando to Winter Park Village	18,575
Orange	521 – Rosemont/Pine Hills Circulator: Rosemont Transit Center to Colonial Drive & Powers Drive	26,530
Orange	522 – UCF/S.R. 436/Aloma: University of Central Florida to Shoppes at Aloma Walk	21,889
Orange	605 – Mercy/Ivey: Orlando Packing District to Washington Shores Transit Center	8,452
Orange	708 – Winter Garden Circulator: Ocoee/Health Central/West Oaks Mall to Winter Garden Village	24,096
Orange	811 – Ocoee NeighborLink: anchor at Ocoee/Health Central/West Oaks Mall	7,497
Orange	812 – Winter Garden NeighborLink: anchors at Winter Garden Village and Ocoee/Health Central/West Oaks Mall	14,994
Orange	813 – Pine Hills NeighborLink: anchors at Pine Hills Transit Center and Ocoee/Health Central/West Oaks Mall	7,497
Orange	862 – Hiawassee: anchor at Ocoee/Health Central/West Oaks Mall	7,497

County	Project Description	Revenue Hours
Orange	867 – Richmond/Washington Shores: anchor at Washington Shores Transit Center	7,497
Orange	871 – South S.R. 436: anchors at Curry Ford/S.R. 436 Transit Center and at Lee Vista Transit Center	7,497
Orange	873 – Lake Baldwin/Lake Howell: anchors at Orlando Fashion Square and Full Sail University	7,497
Seminole	100B – U.S. 17/92: Altamonte Springs to Sanford	39,017
Seminole	200B – U.S. 17/92: Downtown Orlando to Sanford (replaces Route 200A-1 from Orange County Transit Plan)	69,392
Seminole	500A – Rosemont to Longwood (500A and 500B replace Orange County Transit Plan Route 500)	27,544
Seminole	500B – Longwood to Oviedo Mall	28,564
Seminole	600A – Red Bug Lake / Maitland to Oviedo	15,968
Seminole	600B – Alafaya Trail: Oviedo Mall to UCF	30,196
Seminole	603 – Lake Mary / Heathrow / Sanford	19,028
Seminole	604 – Lake Mary / Orlando-Sanford International Airport	10,279
Seminole	611 – Lake Mary / Rhinehart Rd.	12,908
Seminole	822 – Oviedo NeighborLink	14,994
Seminole	851 – Goldsboro NeighborLink	14,994
Seminole	876 – Casselberry NeighborLink	7,497
Osceola	109 – U.S. 192: Kissimmee Intermodal Station to Disney Springs	41,693
Osceola	110 – U.S. 192: Kissimmee Intermodal Station to Walt Disney World	40,406
Osceola	305 – Poinciana to Disney Springs	17,121
Osceola	513A – Poinciana to Disney Springs	21,889
Osceola	520A – Disney Springs to Four Corners	30,283
Osceola	606 – Osceola Parkway: Tupperware SunRail Station to Lake Nona	15,203
Osceola	619 – Kissimmee Connector/Dyer Boulevard	15,968
Osceola	705 – Buena Ventura Lakes / Royal Palm Drive / Buttonwood Drive	16,467
Osceola	706A – Poinciana North Connector	11,262
Osceola	706B – Poinciana South Connector	11,262
Osceola	801 – Poinciana NeighborLink	14,994
Osceola	804 – Intercession City NeighborLink	7,497
Osceola	832 – North Kissimmee NeighborLink	7,497
Osceola	877 – South St. Cloud NeighborLink	7,497

Table B-3 | Bus Enhancements in Long-Term

County	Project Description	Revenue Hours
Orange	102C – South U.S. 441: Florida Mall to LYNX Kissimmee Intermodal Station	16,248
Orange	106 – South Orange Avenue: Downtown Orlando to Sand Lake Road SunRail Station	27,145
Orange	107 – Oak Ridge Road: Universal Orlando to Orlando International Airport	42,926
Orange	108 – International Drive: Universal Orlando to Disney Springs	43,836
Orange	200 – U.S. 17/92: Downtown Orlando to Altamonte Springs SunRail Station	29,242
Orange	208 – International Drive: Universal Orlando to Disney Springs	41,041
Orange	241 – South U.S. 441: Florida Mall to LYNX Kissimmee Intermodal Station	3,990
Orange	502 – Lake Margaret/33rd/Valencia West: Curry Ford Road & S.R. 436 Transit Center to Valencia College West	32,857
Orange	504 – Conway Road: Orlando Fashion Square to Lee Vista Transit Center	22,654
Orange	505A – John Young Parkway North: Rosemont Transit Center to Washington Shores Transit Center	15,812
Orange	505B – John Young Parkway South: Washington Shores Transit Center to The Loop retail complex	31,624
Orange	515 – Rio Grande Avenue: Downtown Orlando to Florida Mall	32,092
Orange	516 – Texas/Westmoreland/Conroy: Downtown Orlando to Universal Orlando	37,237
Orange	608 – Vineland Road/Universal Orlando: Washington Shores Transit Center to Universal Orlando	12,908
Orange	609 – Holden Avenue/Millenia Boulevard: Orange Avenue & Michigan Street to Universal Orlando	13,673
Orange	610 – Maitland Connector: Maitland SunRail Station to Seminole State College Altamonte Springs Campus	7,984
Orange	616 – Maitland Center/Eatonville: Maitland SunRail Station to Summit Boulevard & Maitland Boulevard	9,514
Orange	617 – Eastside Crosstown: Shoppes at Aloma Walk to Lee Vista Transit Center	19,362
Orange	621 – Lee Vista/Lake Nona/Narcoossee Road: Lee Vista Transit Center to Lake Nona/Nemours Children's Hospital	15,098
Orange	860 – Apopka: anchors at Apopka Transit Center and AdventHealth Apopka	7,497
Orange	865 – Taft/South Orange: anchors at Florida Mall and Sand Lake Road SunRail Station	7,497
Orange	868 – Meadow Woods: anchor at Meadow Woods SunRail Station	7,497
Orange	879 – Windermere: anchor at Winter Garden Village, Disney Transportation & Ticket Center, and Disney University	7,497
Orange	880 – Horizon West: anchor at New Independence Walmart and Horizon West Hospital	7,497

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