



Lake County 2023 Transit Development Plan Major Update

November 2023

Prepared for:
Lake County Office of Transit Services
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Prepared for:

Lake County Transit



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Section 1 : Introduction

The Lake County Transit Development Plan (TDP) Major Update is a strategic guide for public transportation services in Lake County. The TDP covers a 10-year planning horizon guided through public and stakeholder outreach. The TDP represents the community's vision and priorities for enhanced connectivity throughout the County via public transportation services.

STATE REQUIREMENTS

The Florida Legislature enacted the State of Florida Public Transit Block Grant (PTBG) Program to provide a stable funding source for public transit. The Block Grant Program requires public transit service providers to develop, adopt, and update a ten-year TDP annually. According to Florida Administrative Code (FAC), Rule 14-73.001, "The TDP shall be the applicant's planning, development and operational guidance document to be used in developing the Transportation Improvement Program and the FDOT's Five Year Work Program."

Under legislation that became effective February 20, 2007, the TDP must undergo a Major Update every five years. In the interim years, a progress report on the ten-year implementation program of the TDP is submitted to the appropriate Florida Department of Transportation (FDOT) District Office. Major updates involve more substantial reporting requirements than annual progress reports.

This TDP is a Major Update to Lake County's Transit Development Plan and was reviewed for submission by the Lake County Board of County Commissioners on November 28, 2023. This plan meets the TDP requirements under Rule Chapter 14-73.001 of F.A.C.

TDP CHECKLIST

Table 1-1 includes a list of TDP requirements from Rule 14-73.001 and indicates where each requirement has been addressed within this TDP document. The checklist is consistent with the TDP Requirements Compliance Checklist published in the latest FDOT TDP Handbook, Version III (2022).



Table 1-1: TDP Requirement Checklist

TDP Checklist Item	TDP Section
Public Participation Process	
Public Involvement Plan (PIP) prepared	Appendix A
PIP approved by FDOT	Section 4
Comments solicited from the Regional Workforce Board	Section 4
Advised FDOT, RWB, and MPO of public meetings	Section 4
Established time limits for receipt of comments	Section 4
Documented summary of activities	Section 4
Situation Appraisal	
Land use	Section 5
Consistency with state, regional, and local transportation plans	Section 5
Other government actions and policies (parking, transit-supportive guidelines, economic development, etc.)	Section 5
Organizational Factors	Section 5
Technology	Section 5
Ridership demand forecasts using TBEST	Section 7
Performance analysis (Peer and Trend analyses)	Section 3
Agency Vision, Mission, Goals, and Objectives	
Vision and mission	Section 6
Goals and objectives	Section 6
Approach for monitoring achievement	Section 6
Opportunity for review by decision-makers, TAC, FDOT, and MPO	Section 4
Alternatives Development and Evaluation	
Development and evaluation of transit alternatives	Section 8
Opportunity for review by decision-makers, TAC, FDOT, and MPO	Section 4
10-Year Implementation Plan	
10-Year program of strategies and policies	Sections 8 and 9
Maps indicating areas to be served and types and levels of service	Section 8
Performance monitoring program	Appendix D
10-Year financial plan showing funding sources and expenditures	Section 9
10-Year implementation plan	Section 9
Unfunded needs	Section 9
Farebox recovery summary report	Appendix F
Opportunity for review by decision-makers, TAC, FDOT, and MPO	Section 4



REPORT CONTENT

This Lake County TDP Major Update is organized based on the TDP activities outlined in the FDOT TDP Handbook, Version III (2022). Sections include the following:

Section 2 summarizes the Demographic Analysis and Baseline Conditions for the LakeXpress service area. The evaluation of baseline conditions establishes a benchmark of demographic, land use, and other critical socio-economic trends within the operating environment.

Section 3 includes the Existing Services Evaluation of the LakeXpress network of public transportation services. An evaluation of critical operating characteristics and performance indicators is provided. In addition, a peer review and trend analysis allow for the assessment of services against peer agencies and performance over time. This review helps identify areas for improvement.

Section 4 summarizes the Public Involvement activities undertaken for the TDP, a review of all completed outreach efforts and summaries of key themes and needs identified through the outreach process. The identified priorities of the community related to LakeXpress services are reviewed and presented.

Section 5 presents the Situation Appraisal. The situation appraisal is a synthesis of how baseline conditions, land use, other planning efforts, governmental policies, organizational challenges, and technology impact how the transit agency should plan for the future. The appraisal helps understand the opportunities and challenges for the transit system within the current operating environment.

Section 6 identifies Goals and Objectives as a policy guide for implementing the TDP. A review and update of the goals and objectives in the 2018 TDP major update was completed to match the current desires of the local community related to public transportation service provision.

Section 7 presents the Transit Demand and Mobility Needs. This section explains the analyses performed to identify public transportation needs in the community. GIS analyses that identify gaps and needs for transit-dependent populations are presented along with ridership forecasts developed using FDOT-approved transit ridership forecasting software.

Section 8 describes service, capital, and technology enhancements identified during the TDP development process. Alternatives are consistent with the technical analyses performed for the plan and with the feedback received from the public and stakeholders. Service alternatives are prioritized using an Alternatives Evaluation and Prioritization framework to facilitate the programming of service and capital enhancements over the 10-year planning horizon of the TDP.

Section 9 presents the Lake County 10-Year TDP Major Update Financial and Implementation Plan. The Plan identifies the funded service, capital improvements, and unfunded needs. This section also documents capital and operating cost and revenue assumptions. A phased implementation plan is presented to support the implementation of service and capital priorities over the horizon year of the plan, FY 2033.



Section 2 : Baseline Conditions and Demographic Analysis

The following section reviews baseline conditions and demographic information for Lake County. It provides context for the LakeXpress 2023 TDP Major Update. The review of baseline conditions provides the foundation for understanding the LakeXpress operating environment and how that operating environment impacts demand for public transportation services. That information, in turn, supports identifying opportunities for service development, gaps in service provision, and priorities based on transit-supportive service area characteristics. This section includes tables, map graphics, and narrative descriptions that reflect the study area population profile, employment and population growth trends, travel patterns, future land use, and major activity centers.

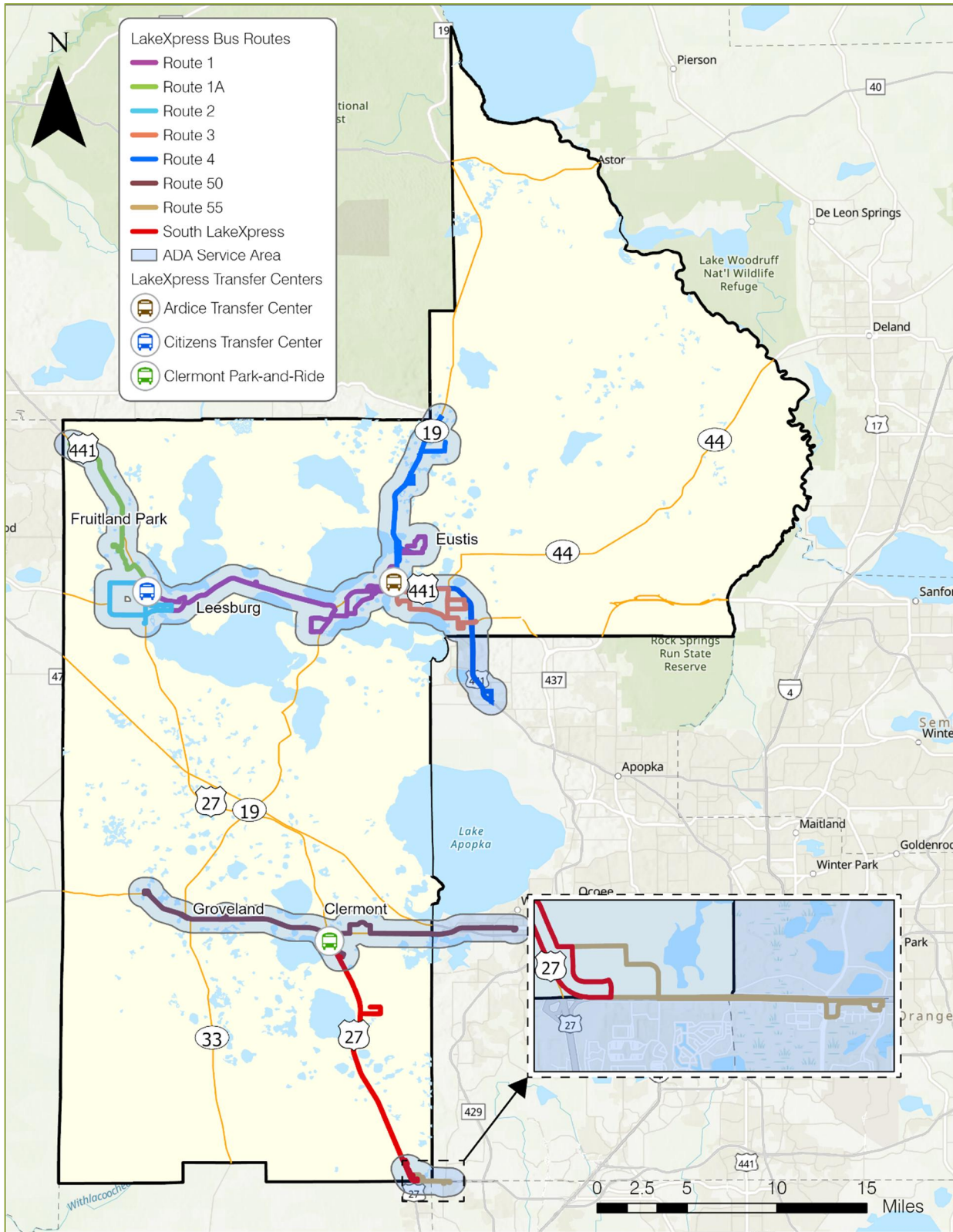
Primary data sources include U.S. Census Bureau's American Community Survey (ACS), The University of Florida's Bureau of Economic and Business Research (BEER), and socio-economic data from the Lake-Sumter Regional Transportation Planning Model. They are supplemented by other local and regional sources as needed.

LAKEXPRESS SERVICE AREA

Lake County is the approximate center of the state of Florida and shares borders with Polk County (to the south), Orange County/Seminole County/Volusia County (to the east), Sumter County (to the west), and Marion County (to the north). According to the 2020 U.S. Census, Lake County includes 951.55 square miles of land area. Map 2-1 illustrates the existing LakeXpress fixed route bus routes and service area.



Map 2-1: LakeXpress Service Area





POPULATION PROFILE

Growth

Information from the 2021 U.S. Census and the ACS was used to develop a population profile for the TDP study area. Lake County is the 18th largest County in Florida by area and contains 18.6 percent of the state’s population. According to the U.S. Census (2020), the land area in Lake County is 951.55 square miles. As shown in Table 2-1, the population increased by 78.2 percent from 2000 to 2021, from 210,528 to 375,059 persons. That increase equates to approximately a growth rate of 2.8 percent each year over the 21-year period. Most recently, the population has increased by 57,473 persons from 2016 to 2021. Lake County is a fast-growing area, which will impact services County-wide.

Table 2-1: Lake County Population Profile, 2000-2021

Characteristic	2000	2010	2016	2021	% Change 2000-2021
Persons	210,528	297,052	317,586	375,059	78.2%
Households	88,413	116,238	122,036	149,455	69.0%
Number of Workers	81,463	119,819	125,218	158,326	94.4%
Average Household Size	2.38	2.56	2.60	2.51	5.4%
Workers per Household	0.9	1.0	1.0	1.1	15.0%
Persons per Square Mile of Land Area	220.9	316.6	333.8	394.2	78.5%
Workers per Square Mile of Land Area	85.5	127.7	131.6	166.4	94.7%

Source: U.S. Census (2000), ACS 5-Yr Estimates 2006-2010 (2010), ACS 5-Yr Estimates 2012-2016 (2016), ACS 5-Yr Estimates 2017-2021 (2021)

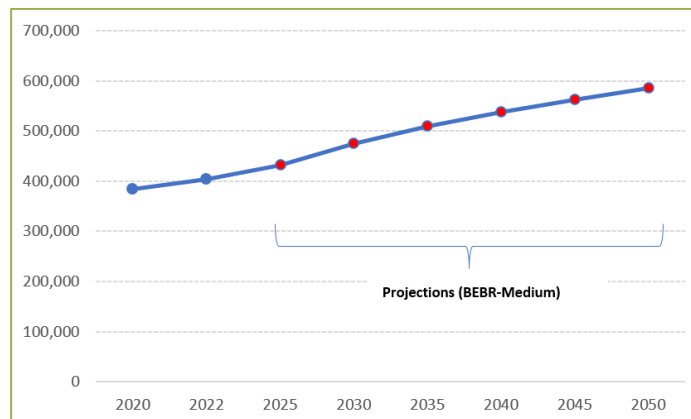
Figure 2-1 and Table 2-2 demonstrate the BEBR medium population projection estimates for Lake County. Lake County is estimated to increase with an average annual growth of 2.05 percent in the next eight years (2030) and an average annual growth of 1.34 percent by 2050. The population of Lake County has been historically fast-growing and is projected to continue at a fast rate in the future. The steadily developing nature of the County will create a burden on County-wide services.

Table 2-2: Lake County Population Projections, 2020-2050

Census	Estimate	Projections					
2020	2022	2025	2030	2035	2040	2045	2050
383,956	403,857	432,300	474,900	509,800	538,100	562,500	585,500

Source: U.S. Census (2020) and BEBR-Medium Level Projections

Figure 2-1: Lake County Population and Projections, 2020-2045



Source: U.S. Census (2020) and BEBR-Medium Level Projections



Population trends for 14 municipalities in Lake County were reviewed for 2000, 2010, 2020, and 2022. As detailed in Table 2-3, Clermont is the largest city in the county and is fast growing according to the growth rate changes from 2000 to 2022; however, Groveland is the fastest-growing city in Lake County. Fruitland Park is a smaller city; however, it had one of the highest growth rate changes between 2000 and 2022.

Table 2-3: Lake County Population Trends - Cities, 2000-2022

Municipality	2000	2010	2020	2022	% Change 2000-2010	% Change 2010-2022	% Change 2000-2022
Astatula	1,298	1,810	1,889	1,995	39.4%	10.2%	53.7%
Clermont	9,333	28,742	43,021	45,812	208.0%	59.4%	390.9%
Eustis	15,106	18,558	23,189	23,595	22.9%	27.1%	56.2%
Fruitland Park	3,186	4,078	8,325	8,615	28.0%	111.3%	170.4%
Groveland	2,360	8,729	18,505	21,633	269.9%	147.8%	816.7%
Howey-in-the-Hills	956	1,098	1,643	1,778	14.9%	61.9%	86.0%
Lady Lake	11,828	13,926	15,970	16,174	17.7%	16.1%	36.7%
Leesburg	15,956	20,117	27,000	28,833	26.1%	43.3%	80.7%
Mascotte	2,687	5,101	6,609	8,040	89.8%	57.6%	199.2%
Minneola	5,435	9,403	13,843	16,446	73.0%	74.9%	202.6%
Montverde	882	1,463	1,655	1,712	65.9%	17.0%	94.1%
Mount Dora	9,418	12,370	16,341	17,129	31.3%	38.5%	81.9%
Tavares	9,700	13,951	19,003	20,296	43.8%	45.5%	109.2%
Umatilla	2,214	3,456	3,685	3,875	56.1%	12.1%	75.0%

Source: U.S. Census (2000, 2010, 2020) and BEBR Population Database

The Lake County demographic characteristics for 2000, 2010, 2016, and 2021 are described in Table 2-4. The male-to-female ratio has remained consistent year-over-year, with more females overall in the county. Although the population of Lake County has been predominately white, over time the county has become slightly more ethnically diverse, particularly between 2017 and 2021. In 2000, 87.5 percent of the population was white, while other races represented 12.5 percent. Currently, 77.2 percent of the population is white, and all other races represent the remaining 22.8 percent. The population of Hispanic or Latino origin tripled, from 5.6 percent in 2000 to 16.8 percent in 2021.



Table 2-4: Lake County Demographic Characteristics, 2000-2021

Characteristic	2000	2010	2016	2021
Gender				
Male	48.4%	48.6%	48.4%	48.7%
Female	51.6%	51.4%	51.6%	51.3%
Ethnic Origin				
White	87.5%	83.3%	83.5%	77.2%
Black/African American	8.3%	9.3%	9.9%	10.5%
Other	3.0%	5.7%	4.3%	4.9%
Two or More Races	1.2%	1.7%	2.2%	7.4%
Hispanic Origin				
Not of Hispanic/Latino Origin	94.4%	88.6%	86.2%	83.2%
Hispanic or Latino Origin	5.6%	11.4%	13.8%	16.8%
Educational Level				
<12th Grade	20.2%	13.1%	12.2%	9.6%
High School Graduate	34.3%	34.3%	33.5%	31.3%
Some College	23.0%	32.3%	32.6%	33.8%
College Graduate	22.5%	20.3%	21.7%	25.3%
Poverty Status				
Below Poverty Status	9.6%	11.0%	13.5%	10.7%
Vehicle Available in Household				
None	5.4%	1.1%	2.0%	1.6%
One	44.4%	21.1%	21.9%	19.4%
Two	37.3%	48.4%	46.2%	43.3%
Three or More	12.9%	29.4%	29.9%	35.7%

Source: U.S. Census (2000), ACS 5-Yr Estimates 2006-2010 (2010), ACS 5-Yr Estimates 2012-2016 (2016), ACS 5-Yr Estimates 2017-2021 (2021)

Analyzing education levels, the percentage of college graduates is at the highest rate since 2000, representing 25.3 percent of the population. The population of those who attained less than a 12th-grade level education decreased to 9.6 percent in 2021. Often, higher income levels within a community are related to the higher percentage of college graduates. Relatively, the portion of the population below poverty status has decreased since 2016, representing 10.7 percent in 2021.

Households with limited access to personal vehicles are considered potential transit-dependent populations. The percentage of zero-vehicle households within Lake County has decreased by 3.8 percent since 2000, representing 1.6 percent of the population. Most homes have two or more vehicles, accounting for 79 percent of the population. As Lake County grows, it is essential to consider improvements in LakeXpress services to serve transit-dependent populations and provide alternatives to automobile travel.



Age Distribution

When considering public transportation demand, a population’s current and future age projections are significant factors. As indicated in Table 2-5, Lake County has a smaller portion of the population aged 15 to 64 compared to Florida and a higher proportion of persons aged 65 and over. The overall population distribution has remained relatively unchanged in Lake County since 2000.

Table 2-5: Lake County vs. Florida Age Distribution Trends, 2000-2021

Age	2000	2010	2016	2021
Lake County				
14 and under	16.9%	17.2%	16.5%	15.9%
15 to 64	56.6%	58.6%	57.6%	57.8%
65 and over	26.5%	24.2%	25.9%	26.3%
Florida				
14 and under	19.0%	17.4%	16.9%	16.5%
15 to 64	63.4%	65.2%	64.0%	63.1%
65 and over	17.6%	17.4%	19.1%	20.4%

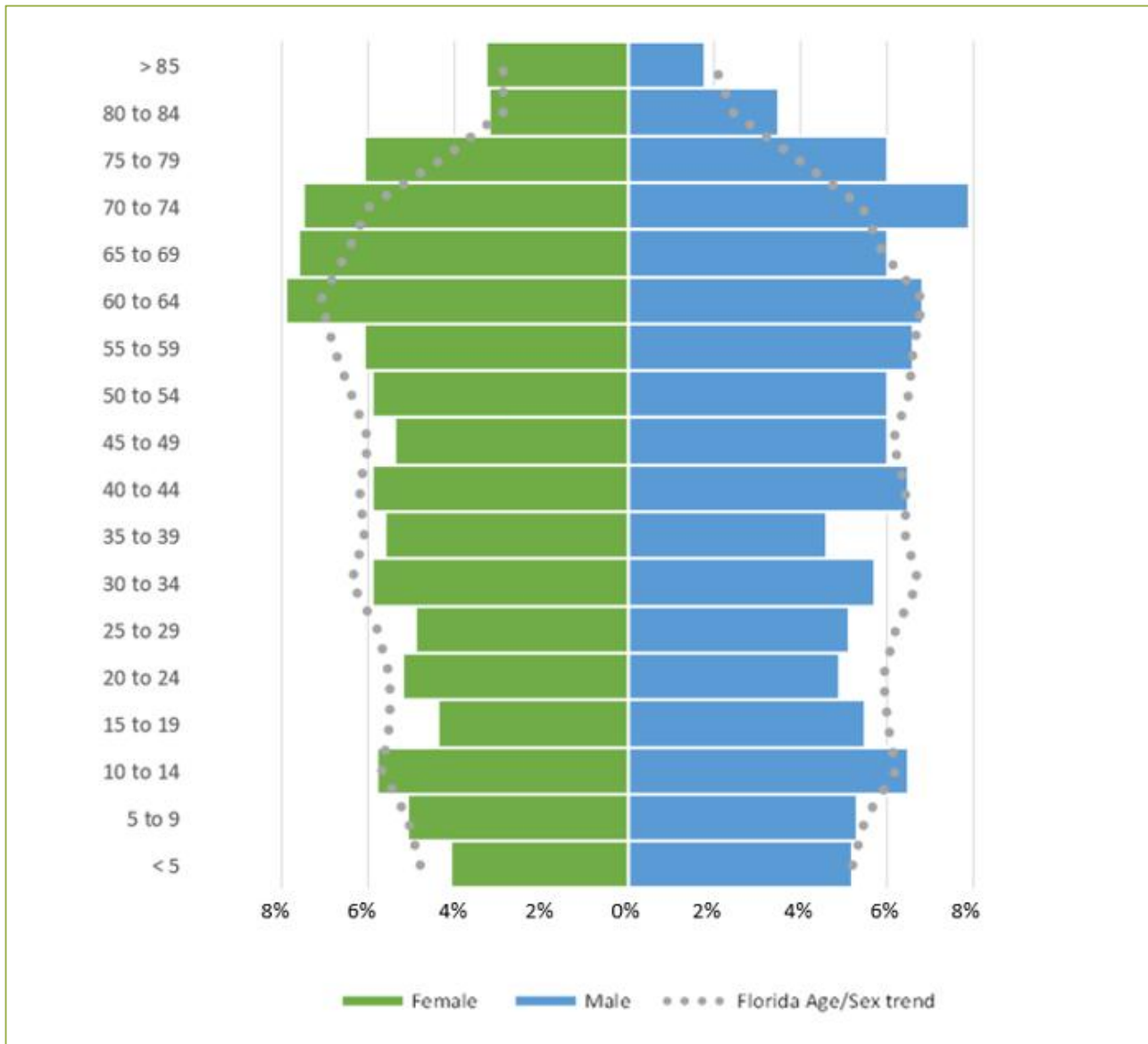
Source: U.S. Census (2000), ACS 5-Yr Estimates 2006-2010 (2010), ACS 5-Yr Estimates 2012-2016 (2016), ACS 5-Yr Estimates 2017-2021 (2021)

Figure 2-2 provides a breakdown of the age distribution and gender trends for Lake County and Florida by categorizing the intervals into gender comparisons. The male and female proportions are similar for Lake County based on age groups. The highest percentage of males are 70 to 74 years of age, and females are 60 to 64 years of age. Based on Figure 2-2, Lake County is at or above the trends compared to the Florida average in persons aged 60 and older. The trend is expected to continue through 2050, especially for persons aged 80 and over, according to Table 2-6 and Table 2-7.

Residents with a higher probability of using transit or carpooling are persons aged 15 or younger (who cannot legally operate a motor vehicle) and persons who cannot afford or own their own vehicle. As described in Table 2-6, the percentage of persons aged 5 to 17 in Lake County is projected to decrease from 14.4 percent in 2021 to 13.7 percent in 2050. However, overall, there is a slight variance in the population proportions. Given the projected growth rate (as shown in the Tables above), there will be a more significant number of persons in Lake County, which will strain the demand. A growing need for public transportation should be assumed to accommodate the growth within Lake County. Map 2-2 shows the distribution of individuals aged 65 and over in Lake County, primarily concentrated around the Lady Lake and Leesburg communities. These two communities are near “The Villages,” primarily concentrated within Sumter County, a master-planned community focused on senior living.



Figure 2-2: Lake County vs. Florida 2021 Age Distribution



Source: ACS 5-Yr Estimates 2017-2021 (2021)



Table 2-6: Lake County Projected Population Growth by Age Group, 2021-2050

Age Group	Projection Year						
	2021	2025	2030	2035	2040	2045	2050
0 to 4	5.3%	5.4%	5.3%	5.3%	5.1%	5.0%	5.0%
5 to 17	14.4%	14.1%	14.0%	14.1%	14.1%	13.9%	13.7%
18 to 24	6.9%	6.8%	6.6%	6.3%	6.4%	6.5%	6.6%
25 to 54	32.6%	32.2%	32.1%	32.4%	32.5%	32.7%	32.1%
55 to 64	14.8%	14.4%	12.9%	11.7%	11.5%	11.9%	12.8%
65 to 79	19.2%	20.0%	21.3%	21.7%	20.9%	19.2%	18.8%
80 and over	6.8%	7.2%	7.9%	8.4%	9.6%	10.7%	11.0%

Source: BEBR Medium-Level Projections

Table 2-7: Lake County Projected Population Growth for Older Adults (Age 65+), 2021-2050

Geography	Projection Year						
	2021	2025	2030	2035	2040	2045	2050
Lake County	26.0%	27.2%	29.2%	30.2%	30.4%	30.0%	29.8%
Florida	20.9%	22.5%	24.4%	25.2%	25.5%	25.3%	25.5%

Source: BEBR Medium-Level Projections



Map 2-2: Percent Age 65 and Over (Block Groups)

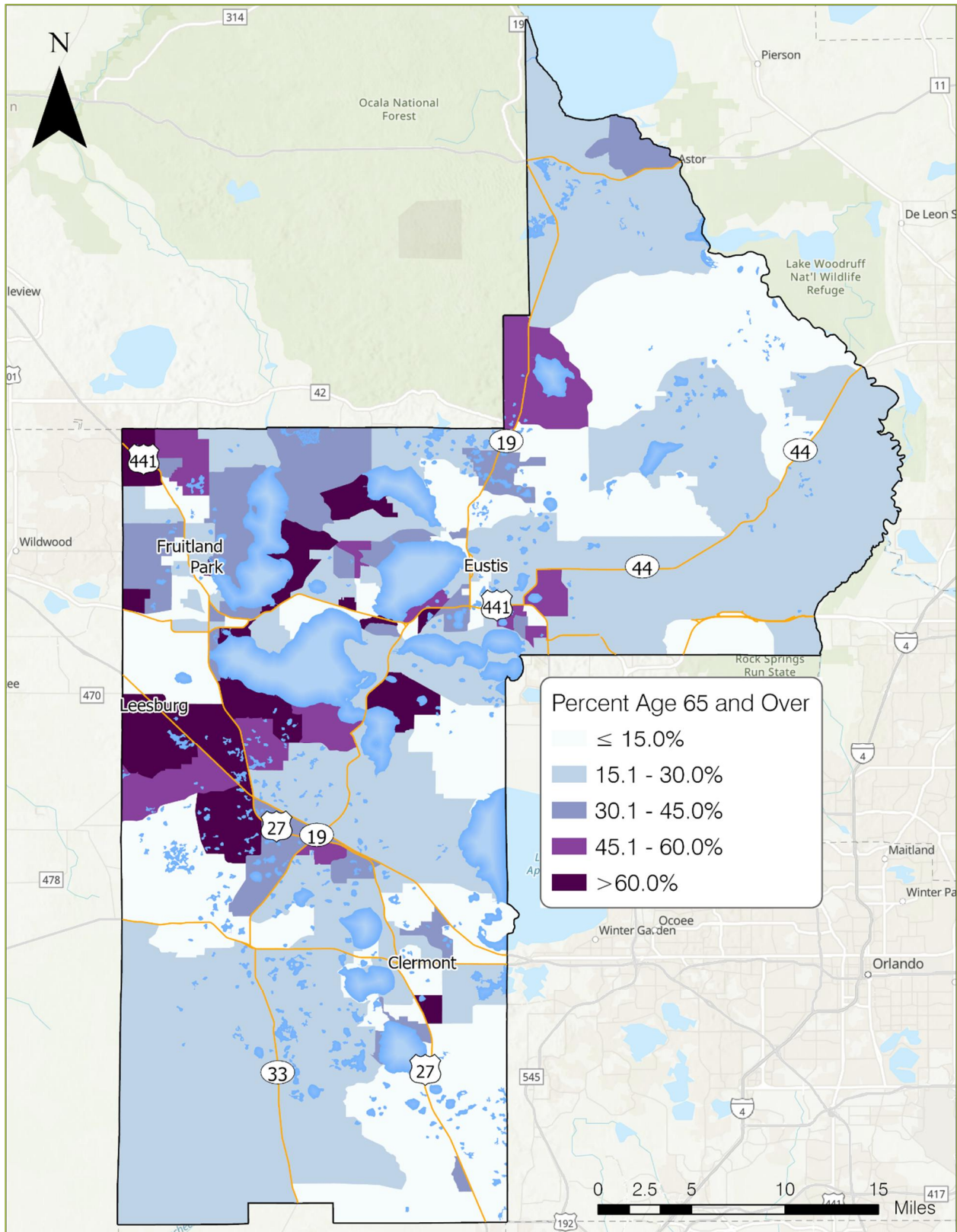




Table 2-8 details the means of transportation of workers by age group in Lake County. According to the 2017-2021 ACS estimates, persons aged 55 to 59 are most likely to take public transit to work at 54.0 percent. The second largest group are those aged 25 to 44, totaling 22.3 percent.

Table 2-8: Lake County Means of Transportation by Age Group, 2021

Age	Drive Alone	Carpooled	Public Transit	Total
Workers 16 and over				
16 to 19	2.5%	13.3%	0.0%	3.3%
20 to 24	8.5%	12.0%	0.7%	8.5%
25 to 44	41.2%	35.0%	22.3%	40.0%
45 to 54	20.8%	21.1%	9.9%	21.2%
55 to 59	10.4%	8.7%	54.0%	10.6%
60 and over	16.5%	10.0%	13.1%	16.4%

Source: ACS 5-Yr Estimates 2017-2021 (2021)

Income

Income is the known leading factor for travel decisions. Low-income households are less likely to have access to a car and, therefore, are more likely to depend on public transit. Based on 2021 household income levels, most households have an annual income of \$50,000 or more. Between 2000 and 2021, Lake County saw household incomes trending higher.

According to Table 2-9, the number of individuals below the poverty line in Lake County was 10.7 percent, which is lower than the average in Florida (13.1 percent) in 2021. The county and the state experienced a decrease in persons below the poverty line between 2016 and 2021.

Table 2-9: Lake County Household Income, 2000-2021

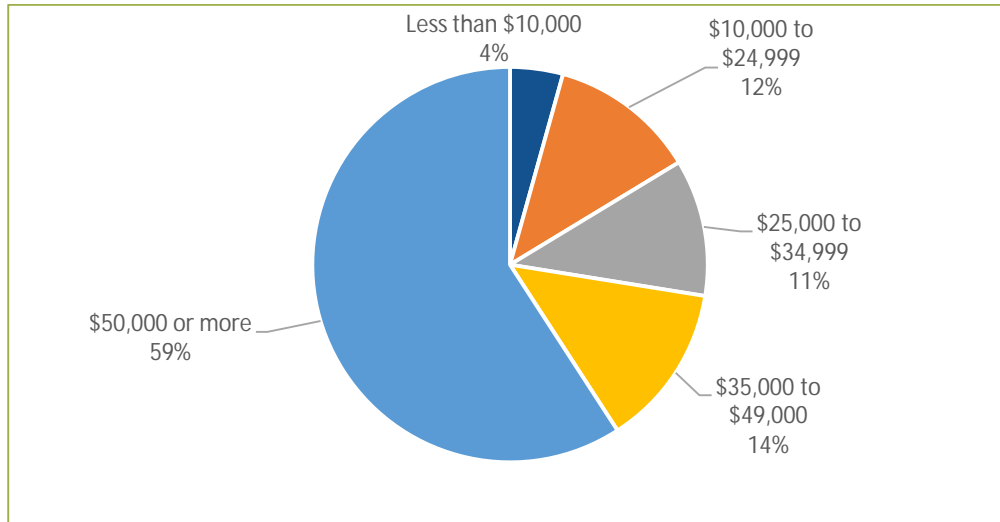
Characteristic	2000	2010	2016	2021	% Change 2000-2021
Household Income (Lake County)					
Under \$10,000	8.4%	5.3%	6.2%	4.3%	-48.8%
\$10,000 to \$49,999	58.2%	47.8%	46.4%	36.5%	-37.3%
\$50,000 or more	33.4%	46.8%	47.4%	59.2%	77.2%
Poverty Status					
Below Poverty Level (Lake County)	9.6%	11.0%	13.5%	10.7%	11.5%
Below Poverty Level (Florida)	12.5%	13.8%	16.1%	13.1%	4.8%

Source: U.S. Census (2000), ACS 5-Yr Estimates 2006-2010 (2010), ACS 5-Yr Estimates 2012-2016 (2016), ACS 5-Yr Estimates 2017-2021 (2021)

Figure 2-3 contains a more detailed breakdown of household incomes for residents across Lake County. Consistent with Table 2-9, the most significant income bracket includes households with an annual income of \$50,000 or more, representing 59 percent of the population in Lake County. In 2021, 27 percent of households made less than \$35,000 annually, indicating the percentage of low-income families. The median household income in the County is \$60,013, slightly less than the median household income in Florida, which is \$61,777.



Figure 2-3: Lake County Annual Household Income Distribution, 2021



Source: ACS 5-Yr Estimates 2017-2021 (2021)

As detailed in Table 2-10, most workers (aged 16 and over) who utilize public transit are the lowest income earners. Specifically, the highest percentage of public transit riders in 2021, totaling 55.5 percent, are workers earning between \$10,000 and \$14,999 annually.

Table 2-10: Means of Transportation According to Income, 2021

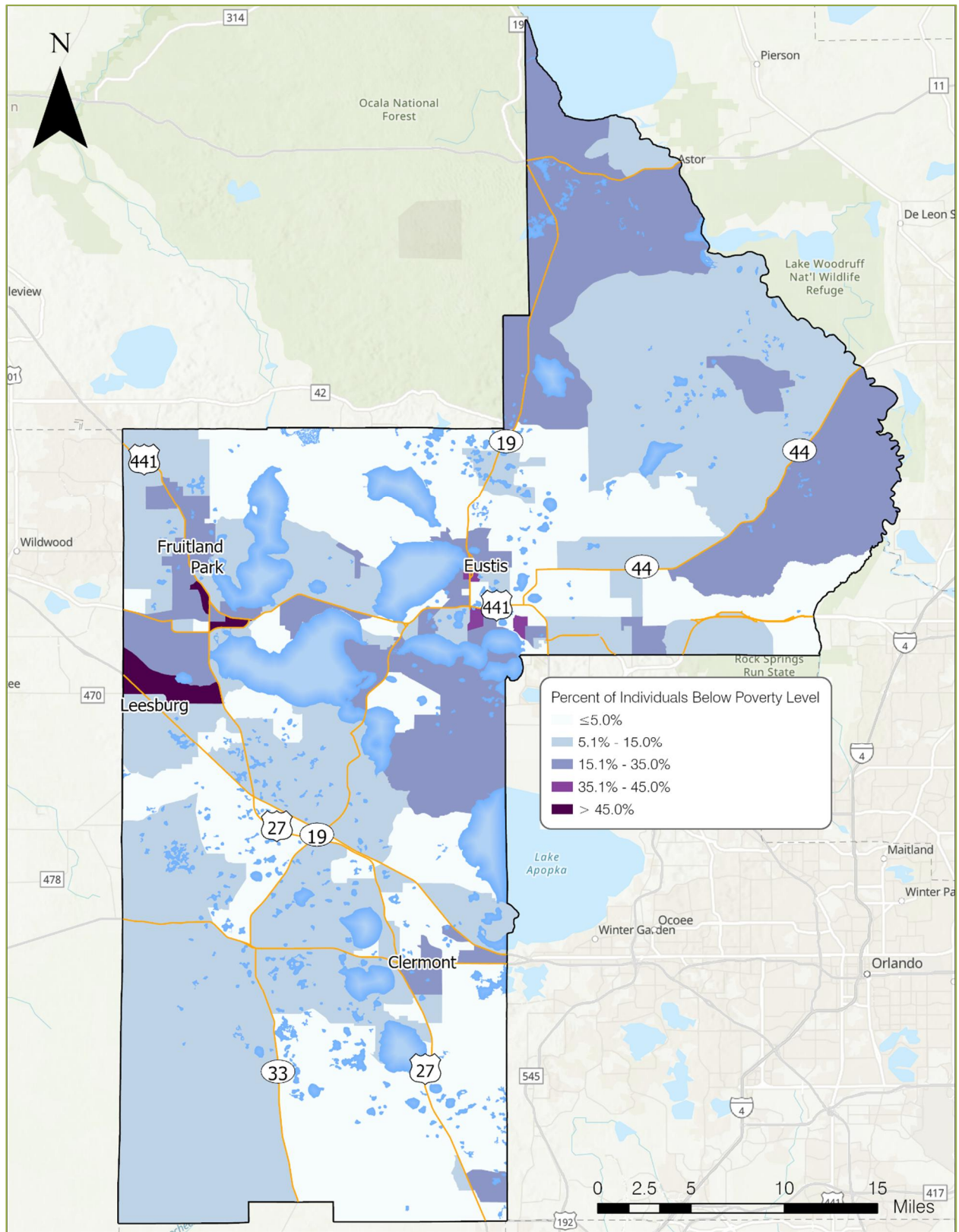
Earnings	Drove Alone	Carpooled	Public Transit	Total
Workers 16 and over with earnings				
\$1 to \$9,999 or less	8.4%	18.6%	5.1%	9.8%
\$10,000 to \$14,999	6.3%	10.5%	55.5%	6.7%
\$15,000 to \$24,999	16.1%	19.2%	22.3%	16.1%
\$25,000 to \$34,999	17.4%	16.4%	7.7%	16.6%
\$35,000 to \$49,999	17.8%	15.7%	9.5%	17.2%
\$50,000 to \$64,999	12.0%	6.5%	0.0%	11.6%
\$65,000 to \$74,999	5.7%	2.9%	0.0%	5.4%
\$75,000 or more	16.3%	10.3%	0.0%	16.5%

Source: ACS 5-Yr Estimates 2017-2021 (2021)

Map 2-3 and Map 2-4 show the concentrations of individuals below the poverty level and zero-vehicle households by block group, respectively. As shown in the maps, the highest concentration of individuals below the poverty level are in Fruitland Park and Leesburg, while the highest concentrations of zero-vehicle households are in Clermont, Eustis, and Fruitland Park.

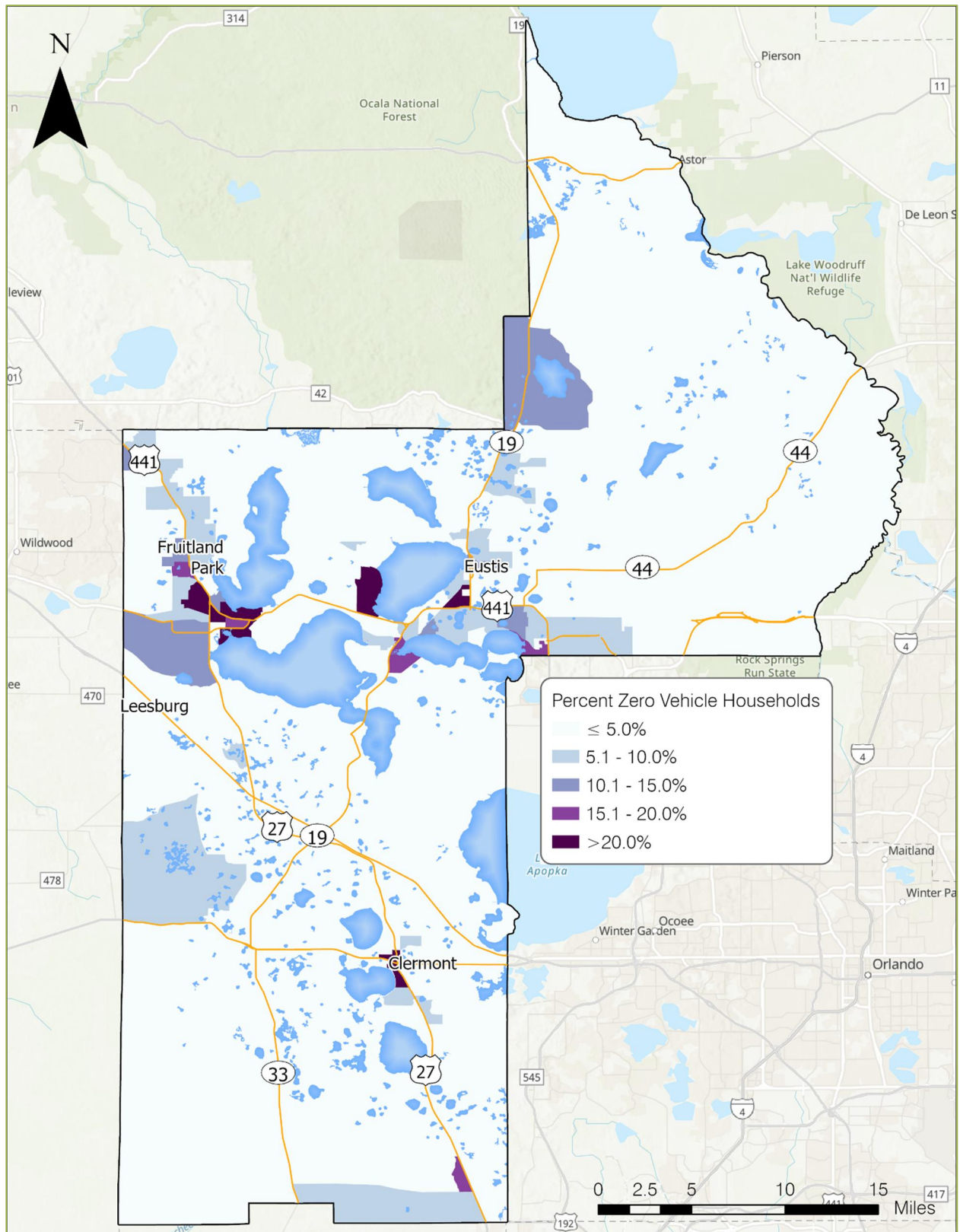


Map 2-3: Percent of Individuals Below Poverty Level (Block Groups)





Map 2-4: Percent Zero Vehicle Households (Block Groups)





POPULATION AND HOUSING DENSITIES

Population and dwelling unit densities are key indicators when analyzing transit needs throughout Lake County. Map 2-5 and 2-6 show the population densities per square mile using traffic analysis zone (TAZ) data for 2025 and 2035. Similarly, Map 2-7 and Map 2-8 show the dwelling unit densities per square mile for 2025 and 2035.

The maps show that Lake County generally has low population and dwelling unit densities.

According to the 2020 Census, the average household size for Lake County decreased slightly from 2.49 persons in 2016 to 2.48 persons in 2021, and most households (67.6 percent) are considered family households.

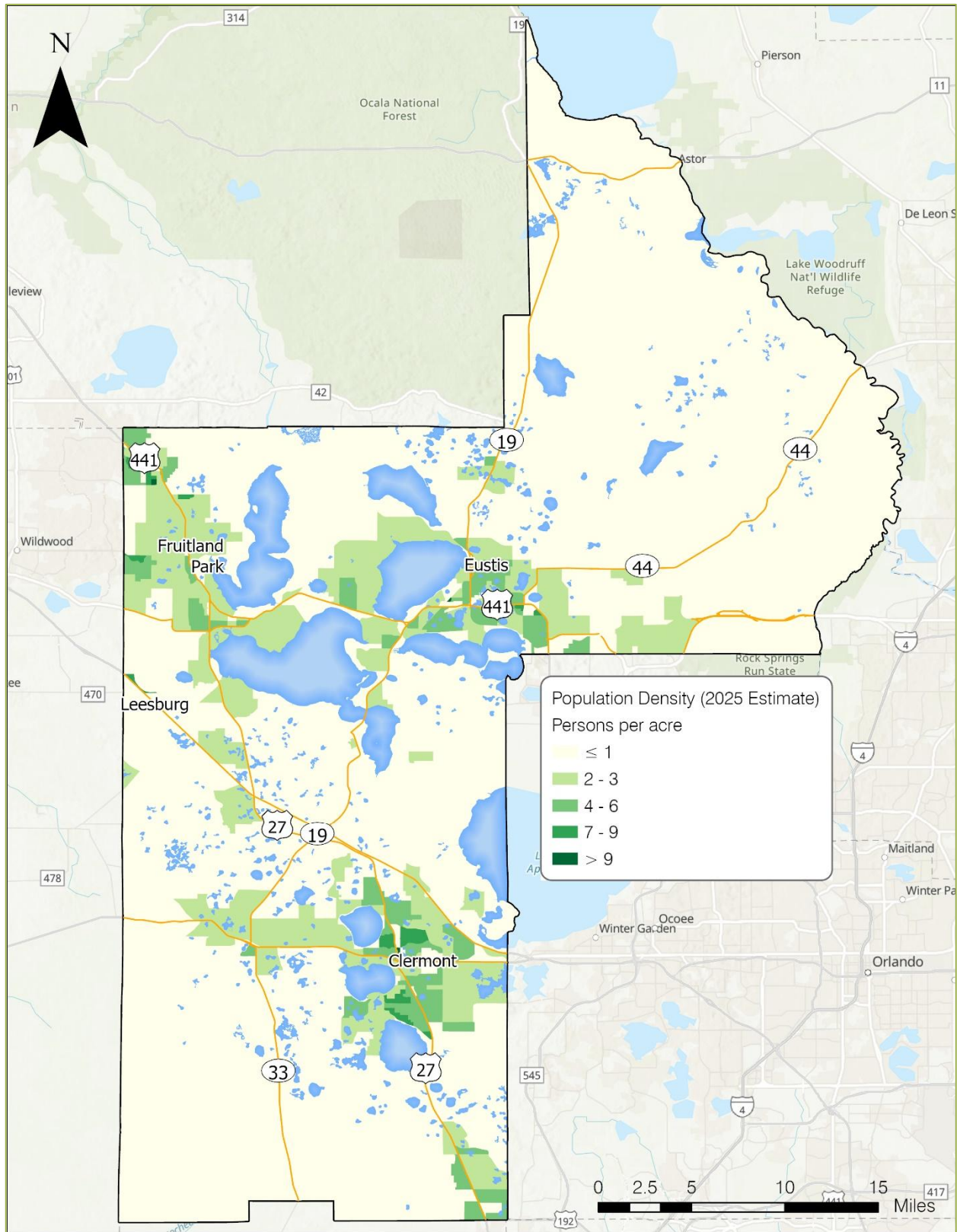
As shown in the described maps, the areas with the highest levels of population density include the municipalities of Eustis, Clermont, and Fruitland Park and their surrounding areas. The same areas are estimated to experience increases in population density from 2025 to 2035. Additionally, areas in the southeast corner of the County, bordering Orange County and Clermont, are expected to have moderate increases in population density.

The areas with the highest dwelling unit densities correspond with those with the highest population densities. Most of the growth in dwelling unit densities between 2025 and 2035 will occur in Lake County's municipalities of Clermont, Eustis, Leesburg, and Fruitland Park.

The southeast corner of Lake County will be home to the Wellness Way Strategic Corridor, which is a master-planned community focused on significant sporting and training opportunities. As indicated in Map 2-5 through Map 2-8, this corner of the County is projected to grow between 2025 and 2035; however, following conversations with Lake County staff, the Wellness Way Strategic Corridor area is anticipated to have more growth than the model is projecting.

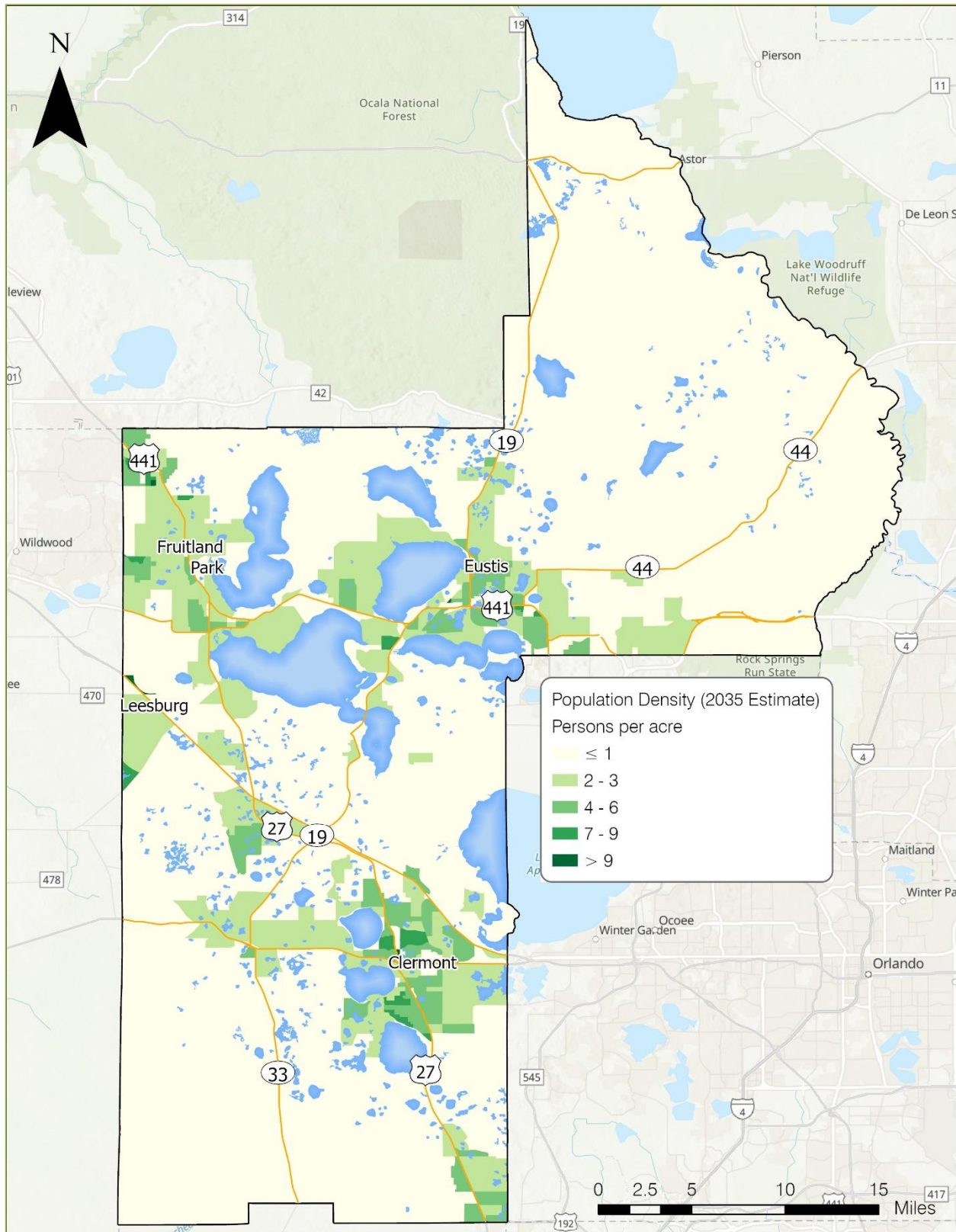


Map 2-5: Population Density (2025) – Lake County (TAZs)



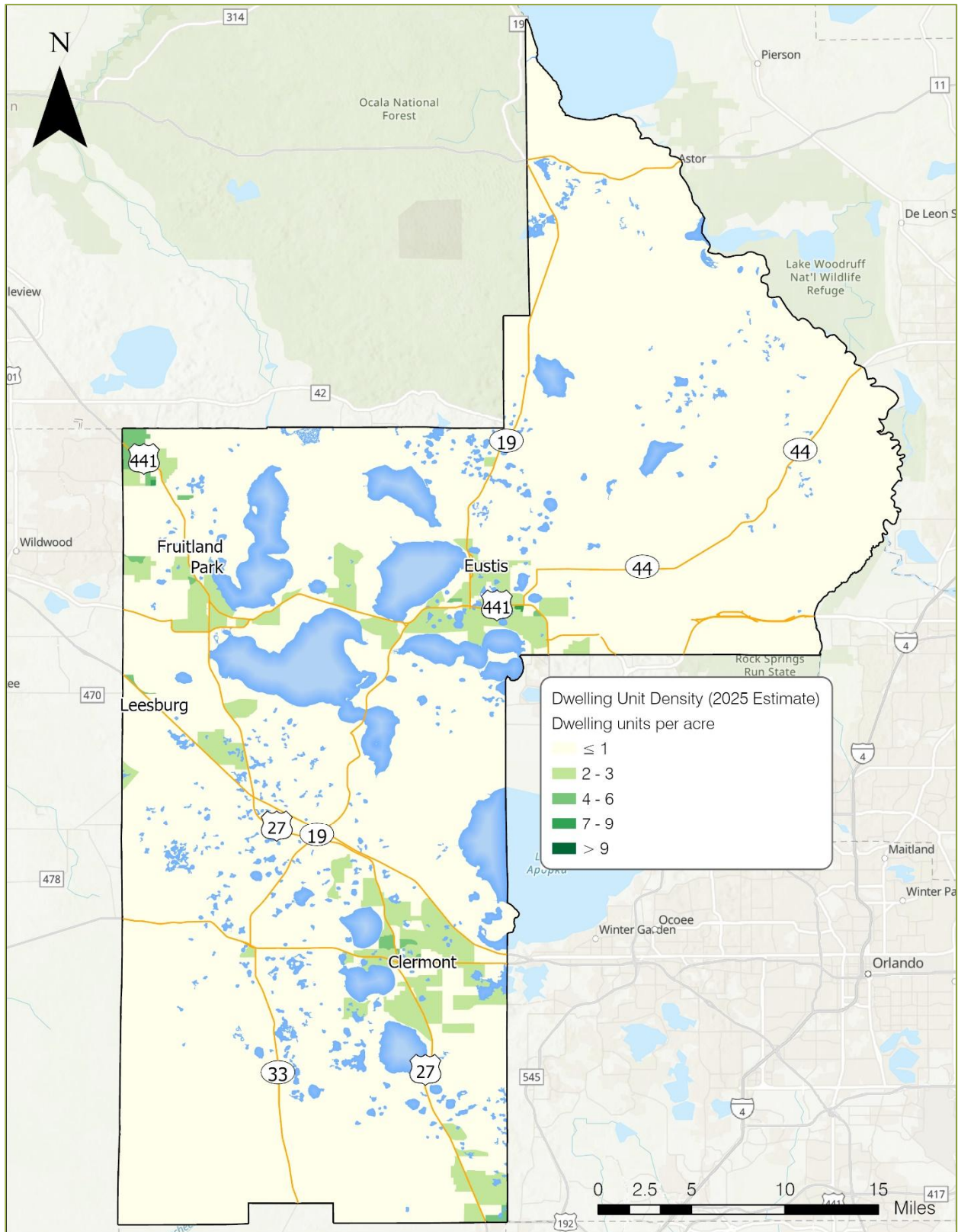


Map 2-6: Population Density (2035) – Lake County (TAZs)



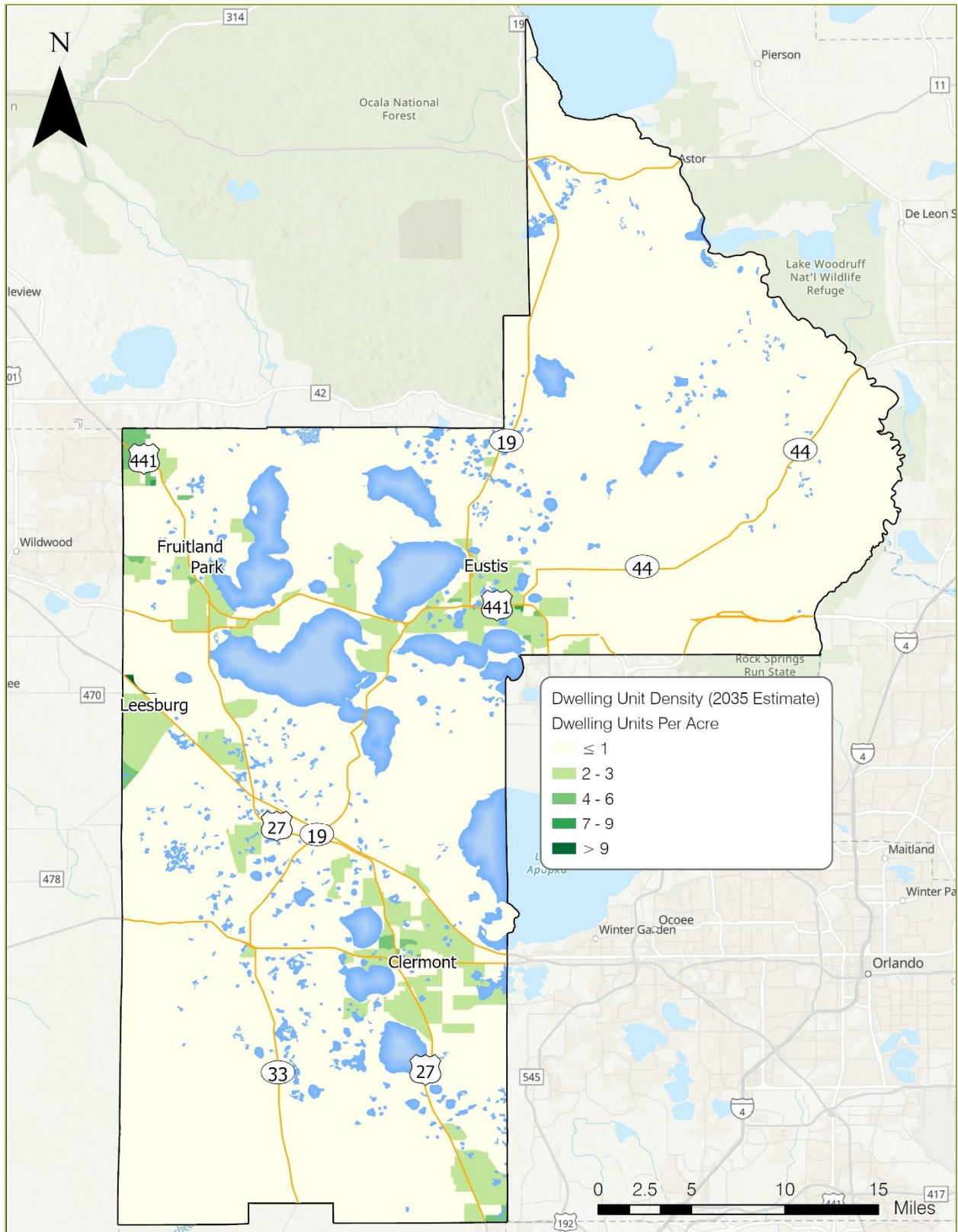


Map 2-7: Dwelling Unit Density (2025) – Lake County (TAZs)





Map 2-8: Dwelling Unit Density (2035) – Lake County (TAZs)





TRANSPORTATION DISADVANTAGED POPULATION

Florida’s Transportation Disadvantaged (TD) Program was created in 1979 and re-enacted in 1989. The 1989 reenactment created the Florida Commission for the Transportation Disadvantaged (CTD) to enhance local participatory planning and administration of TD services. The TD population consists of “those persons who, because of physical or mental disability, income status, or age, are unable to transport themselves or purchase transportation and are, therefore, dependent on others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities or children who are handicapped or high-risk or at-risk as defined in s. 411.202, Florida Statutes.” (Chapter 427, Florida Statutes).

Lake County provides transportation services to its TD population throughout the County, in addition to the fixed-route bus system. Lake County Board of County Commissioners serves as the Community Transportation Coordinator (CTC) for Lake County, coordinating demand-response transportation services for the TD population. Priority for Lake County Transit’s TD services is given to those who do not own or drive their own vehicle and do not have family/friends to assist them in traveling to/from these destinations. Additionally, TD service is based on needs, with medical needs or life-sustaining activities having higher priority than business or recreational trips. Table 2-11 shows the forecasted growth of TD trips to 2031.

Table 2-11: Forecast of Lake County TD Population and Daily Trips by Passenger Type, 2021-2031

Passenger Type	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total Critical TD Population										
Disabled	15,670	15,988	16,313	16,643	16,981	17,325	17,677	18,035	18,401	18,775
Low Income Not Disabled No Auto/Transit Access	4,919	5,018	5,120	5,224	5,330	5,438	5,548	5,661	5,776	5,893
Total Critical Need TD Population	20,589	21,007	21,433	21,867	22,311	22,764	23,225	23,696	24,177	24,668
Daily Trips – Critical Need TD Population										
Disabled	768	783	799	816	832	849	866	884	902	920
Low Income Not Disabled No Auto/Transit Access	9,341	9,530	9,723	9,921	10,122	10,327	10,537	10,750	10,968	11,191
Total Daily Trips Critical Need TD Population	10,075	10,245	10,418	10,594	10,782	10,973	11,167	11,365	11,566	11,747
Annual Trips	3,072,825	3,124,755	3,177,564	3,231,265	3,288,458	3,346,664	3,405,900	3,466,184	3,527,535	3,582,918

Source: Lake County Transportation Disadvantaged Service Plan (2023)



EMPLOYMENT CHARACTERISTICS

Land use and travel patterns that might affect transit services can be explained through employment and labor characteristics. Lake County had approximately 8,300 employer establishments in 2021, with about 87,300 employees. As indicated in Table 2-12, over 50 percent of persons aged 16 and older were in the civilian workforce.

Table 2-12: Lake County Labor Characteristics

Labor Characteristics	Figure
Total Employer Establishments (2021)	8,338
Total Employment (2021)	87,389
Percent of Population in Civilian Force (2017-2021)	54.2%

Source: U.S. Census Quick Facts for Lake County (2021)

Lake County comprises many sizeable private sector entities, with four establishments employing over 1,000 employees. As detailed in Table 2-13, the largest private sector employers include hospitals and supermarkets. Similarly, as shown in Table 2-14, health care and social assistance is the largest employer by industry in the county; retail trade, construction, accommodation, and food service industries are not far behind.

Map 2-9 and Map 2-10 illustrate the employment densities for 2025 and 2035 in Lake County by TAZ, based on socio-economic data from the Lake-Sumter Regional Transportation Planning Model. The areas within the county that exhibit the highest employment densities include the municipalities of Eustis, Clermont, Leesburg, and the surrounding suburbs. The area projected to have the highest increase in employment between 2025 and 2035 is along US Highway 441.



Table 2-13: Top Private Employers in Lake County

Major Employers	
1,000+ Employees	100-250 Employees
Publix Supermarkets	Cutrale Citrus Juices USA Inc.
AdventHealth Waterman	Southeast Modular Manufacturing
UF Health Leesburg Hospital	Mission Inn Resort
Orlando Health South Lake Hospital	Quitflex Manufacturing
500-1,000 Employees	Lakeview Terrace Retirement Community
Walmart Supercenters	Leware Construction Co. Florida, Inc.
The Villages of Lake-Sumter Inc.	Dura-Stress Inc.
Cornerstone Hospice & Palliative Care	Sunstate Carriers, Inc.
Lowe's Home Improvement Centers	Bailey Industries Inc.
Lifestream Behavioral Center	Domino's Pizza Distribution
Carroll Fulmer Logistics	Dunkin' Donuts Distribution
Home Depot Home Improvement Center	Fishel Co.
250-500 Employees	Senninger Irrigation, Inc.
IMG Enterprises Inc. / Cherry Lake Tree Farm	Country Pure Foods
J.A. Croson	United Southern Bank
Winn-Dixie Supermarkets	
OS Restaurant Services	
Kohl's Department Stores	
Lake Sumter State College	
Waterman Communities, Inc.	
Exploria Resorts	
Community Heath Centers, Inc.	

Source: Lake County Economic Development Department

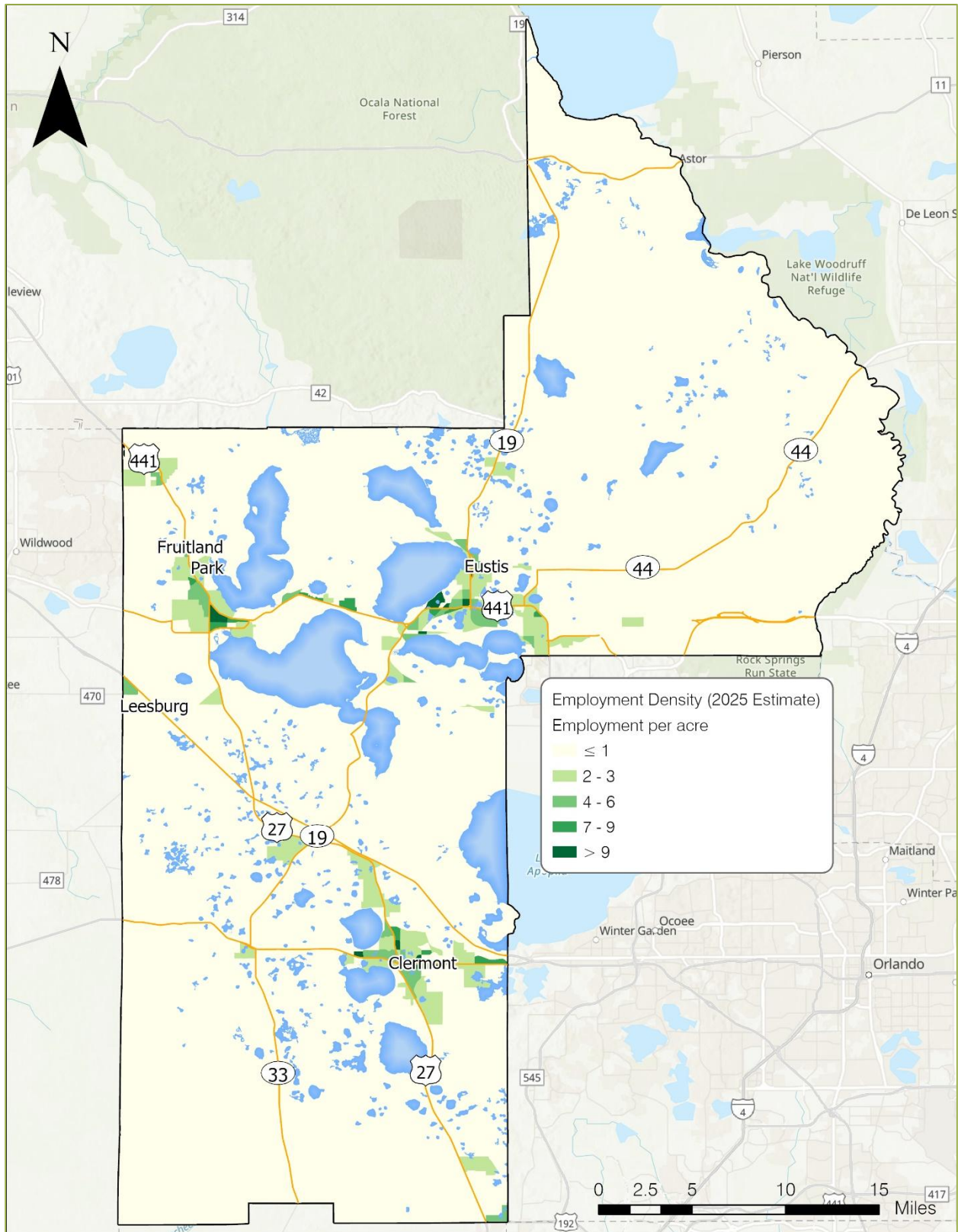
Table 2-14: Employment by Industry in Lake County

Industry	2021
Health Care and Social Assistance	19.3%
Retail Trade	18.4%
Construction	12.9%
Accommodation and Food Services	12.1%
Administration and Support and Waste Management and Remediation Services	8.2%
Educational Services	7.7%
Public Administration	6.3%
Professional, Scientific, and Technical Services	5.3%
Transportation and Warehousing	5.2%
Other Services	4.7%

Source: Lake County Economic Development Department

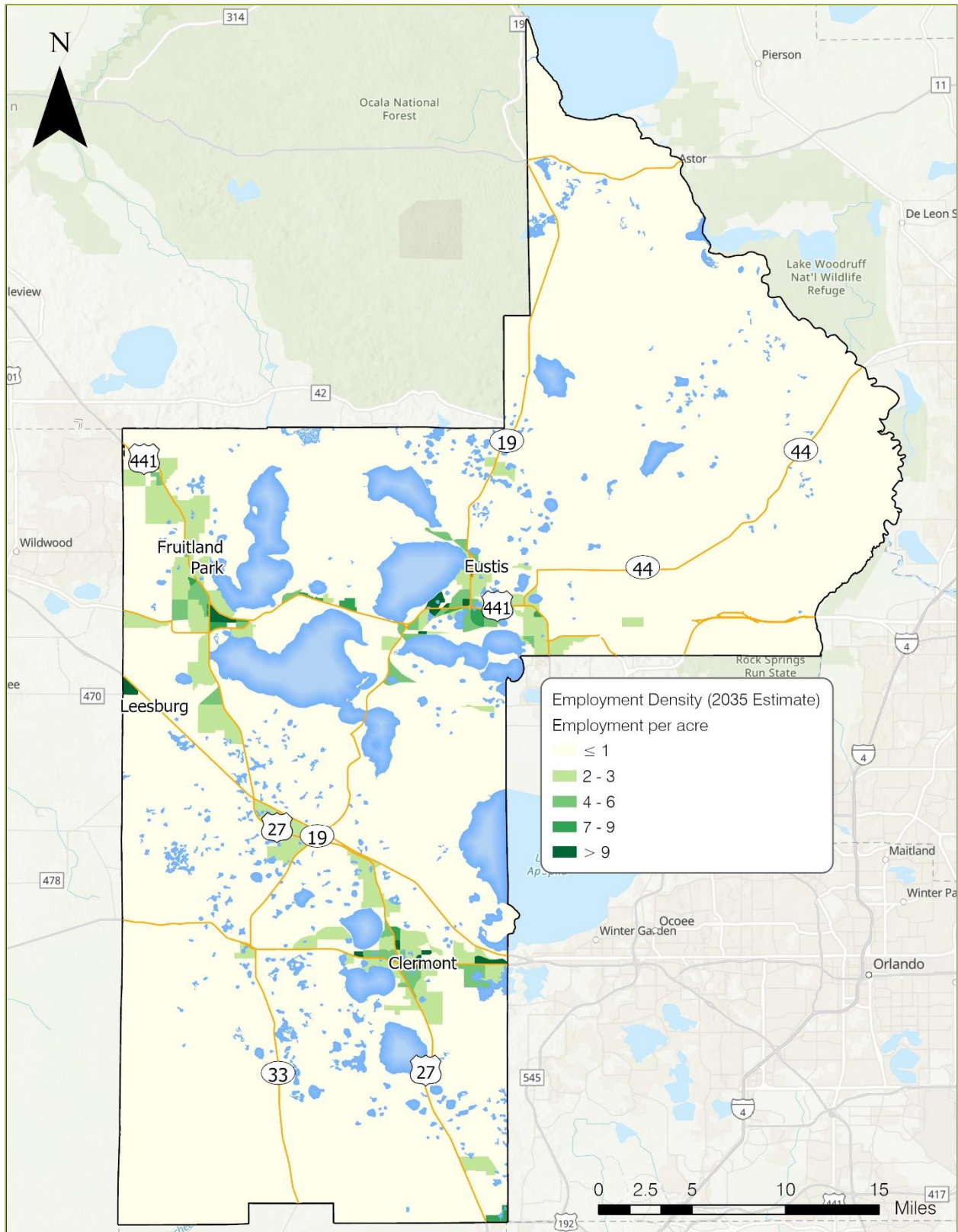


Map 2-9: Employment Density (2025) – Lake County (TAZs)





Map 2-10: Employment Density (2035) – Lake County (TAZs)





JOURNEY-TO-WORK CHARACTERISTICS

Journey-to-work characteristics for Lake County are outlined in Table 2-15 and include modes of transportation to work, travel time to/from work, and departure time for work. To be expected, the primary method of commuting to work is by driving alone, totaling 78.4 percent of the population. Currently, only 0.2 percent of commuters in the county use public transportation. This is important to note when considering the potential market of choice riders for transit.

Approximately 35.9 percent of commutes are less than 20 minutes, with most commute times between 10 to 19 minutes. This indicates that commuters must travel a moderate distance between work and home. The mean travel time to work for Lake County residents is 29.7 minutes. Most commuters leave for work during the traditional peak hours of travel (6:00 AM and 8:00 AM), representing 46.4 percent in total.

Table 2-15: Lake County Commuting Characteristics

Characteristic	2021
Mode to Work	
Drove Alone	78.4%
Carpooled	9.0%
2-person carpool	6.9%
3-person carpool	1.3%
4+-person carpool	0.8%
Workers per car, truck, or van	1.06
Public transit	0.2%
Walked	1.0%
Worked at home	9.6%
Bicycle	0.3%
Taxicab, motorcycle, or other	1.6%
Travel Time to Work	
<10 minutes	10.9%
10 to 19 minutes	25.0%
20 to 29 minutes	17.3%
30 to 44 minutes	23.3%
45+ minutes	23.5%
Departure Time to Work	
Before 6 AM	14.4%
6:00 to 6:59 AM	19.9%
7:00 to 7:59 AM	26.5%
8:00 to 8:59 AM	15.6%
9:00 AM to 11:59 PM	23.6%

Source: ACS 5-Yr Estimates 2017-2021 (2021)



Table 2-16 summarizes commuter travel types related to occupation type, showing that the majority are workers in the service industry – comprising 61.3 percent in total.

Table 2-16: Lake County Commuter Characteristics by Occupation

Occupation	Drove Alone	Carpooled	Public Transit	Walked	Taxi, Bike, Motorcycle, etc.	Worked at Home	Total
Management, business, science, and arts	35.0%	27.6%	9.5%	14.8%	26.7%	49.6%	35.3%
Service	20.8%	27.0%	61.3%	23.2%	33.6%	8.5%	20.5%
Sales and office	24.1%	23.0%	19.3%	34.2%	14.8%	33.0%	24.8%
Natural resources, construction, and maintenance	9.8%	13.7%	3.6%	4.2%	18.5%	6.6%	10.0%
Production, transportation, and material moving	10.2%	8.6%	6.2%	23.5%	6.4%	2.3%	9.3%
Military-specific	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Total	122,084	13,964	274	1,523	2,894	14,897	155,636

Source: ACS 5-Yr Estimates 2017-2021 (2021)

Lake County employment by location is indicated in Table 2-17. It specifies that in 2021, 155,636 residents were employed, of which 60.0 percent lived and worked within the county. Additionally, 38.6 percent of residents commuted to another county, indicating a high demand for regional employment-based trips.

Table 2-17: Lake County Employment by Location

Place of Work	2021
Total	155,636
Worked in State of Residence	99.2%
Worked in County of Residence	60.6%
Worked Outside County of Residence	38.6%
Worked Outside State of Residence	0.8%

Source: ACS 5-Yr Estimates 2017-2021 (2021)



ORIGIN AND DESTINATION ANALYSIS

Origin and destination characteristics for Lake County were analyzed using data collected from Replica, a transportation and travel modeling tool, for both work and non-work trips. Replica data was collected to better understand travel patterns throughout the study area, using detailed data from a model based on large-scale demographic and locally collected data, as shown in the graphic to the right.

Replica is a data tool utilized to obtain granular data on travel patterns, particularly origin and destination flows, to understand the places where trips start and end. For Lake County, Replica was utilized to see where Lake County Residents live, work, and travel throughout the region.

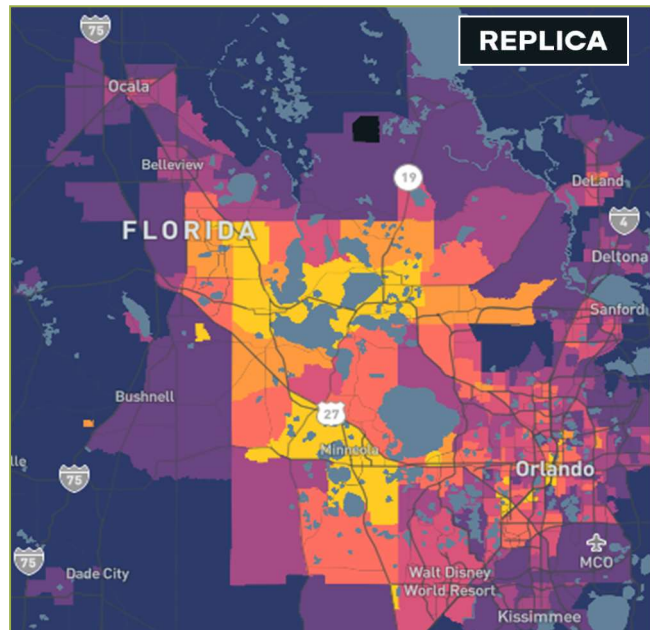


Table 2-18 summarizes the total non-work and work trips ending in Lake County and the top five counties where those trips begin. During an average weekday in Fall 2022, 8,363 work trips originate in Orange County and end in Lake County. Similarly, 118,891 non-work trips originate in Orange County and end in Lake County.

Table 2-18: Top 5 Origin Counties Where Trips Conclude in Lake County (Work and Non-Work Trips) (2022)

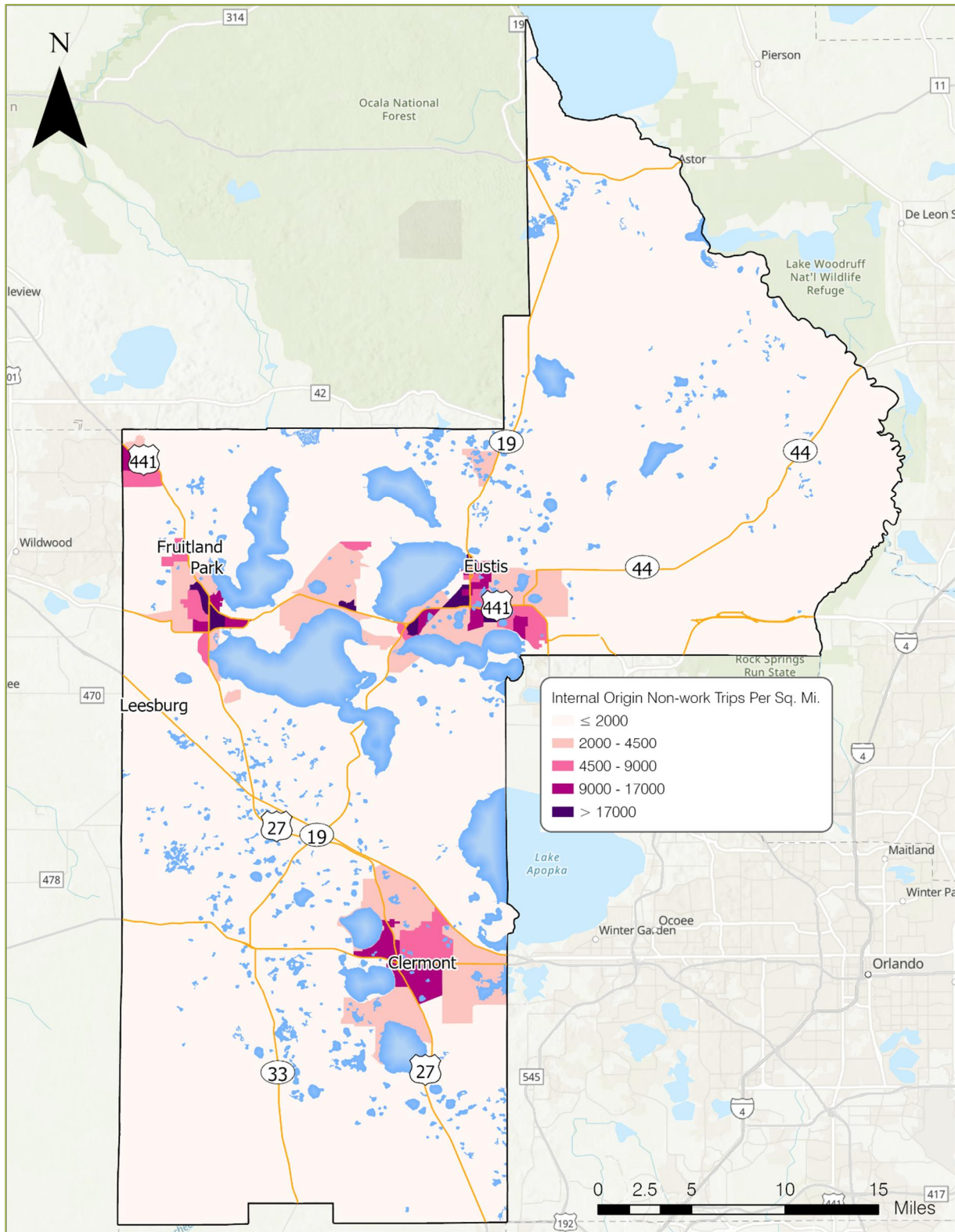
Top 5 Origin Counties Where Trips Conclude in Lake County (2022)	Trips
Work Trips	
Lake County	87,718
Orange County	8,363
Sumter County	5,726
Marion County	4,816
Volusia County	1,209
Non-Work Trips	
Lake County	943,408
Orange County	118,891
Sumter County	61,190
Marion County	28,306
Seminole County	18,638

Source: Replica (Average Weekday, Fall 2022)

Additionally, Map 2-11 through Map 2-14: show origin and destination trips per square mile for work and non-work trips internal to Lake County. This data was retrieved using Replica and modeled using standard weekday conditions. Overall, non-work origin and destination trips are concentrated in the three population centers of Clermont, Eustis, and Fruitland Park.

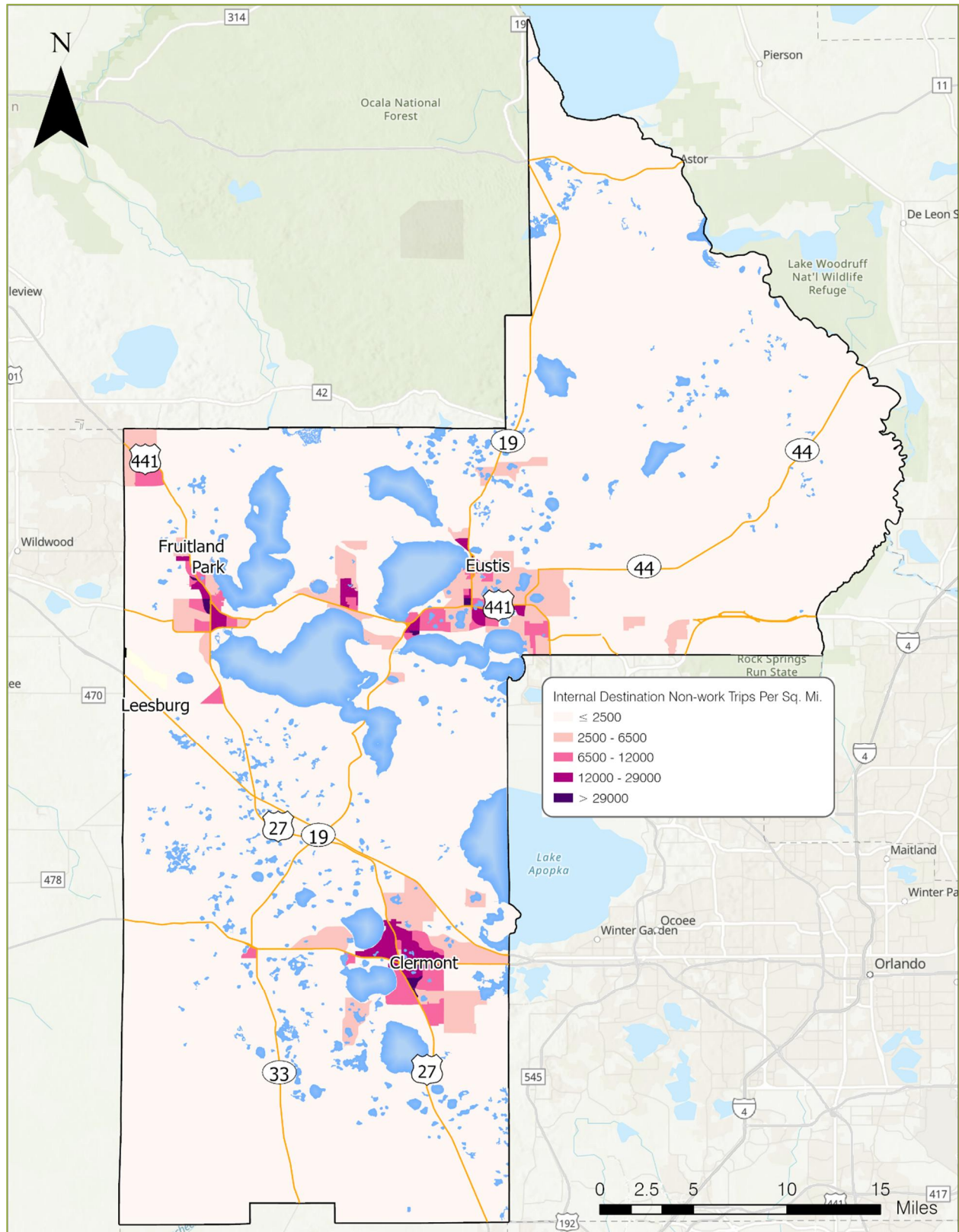


Map 2-11: Number of Non-Work Trips Originating in Lake County (Census Block Groups)



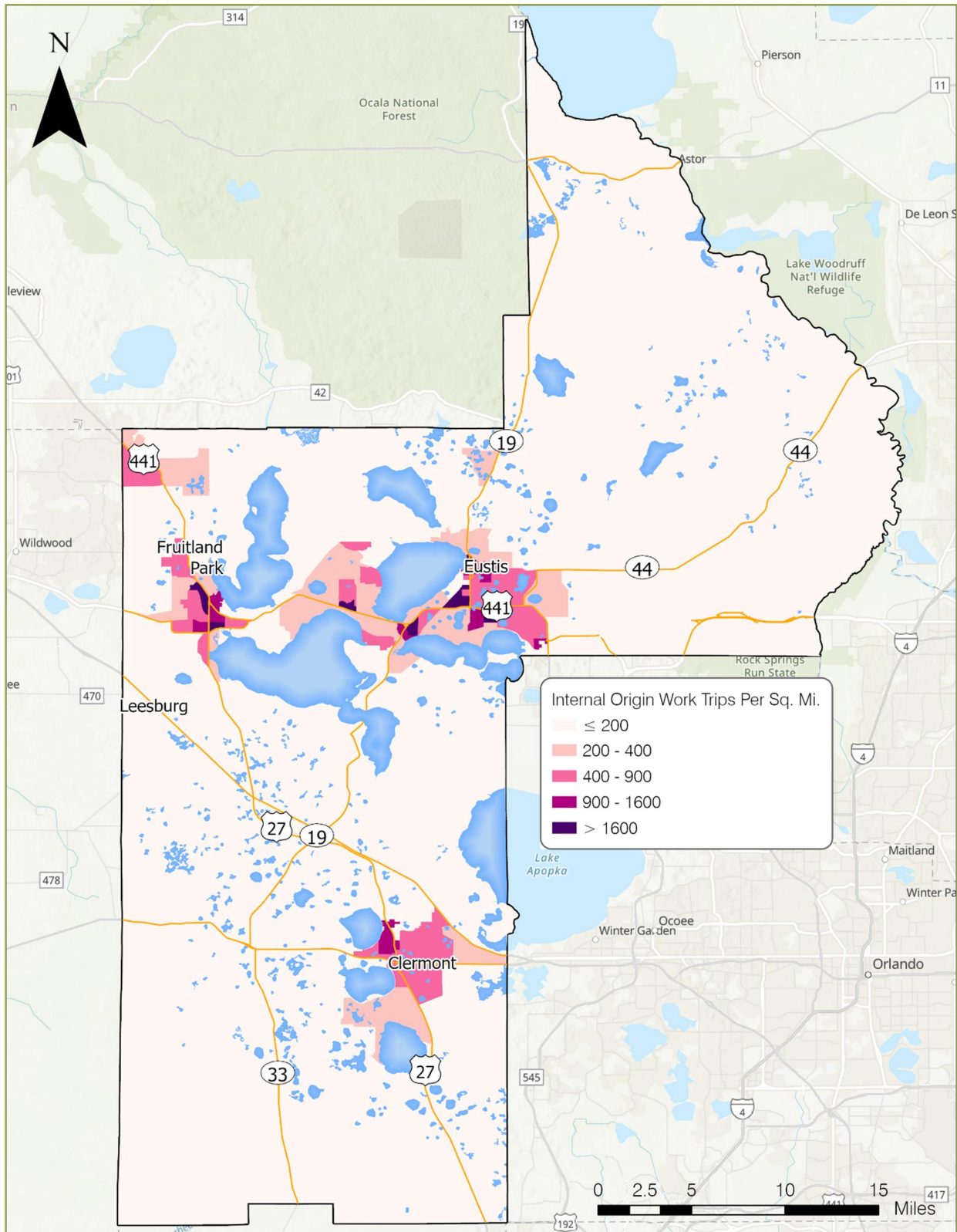


Map 2-12: Number of Non-Work Trips Concluding in Lake County (Census Block Groups)



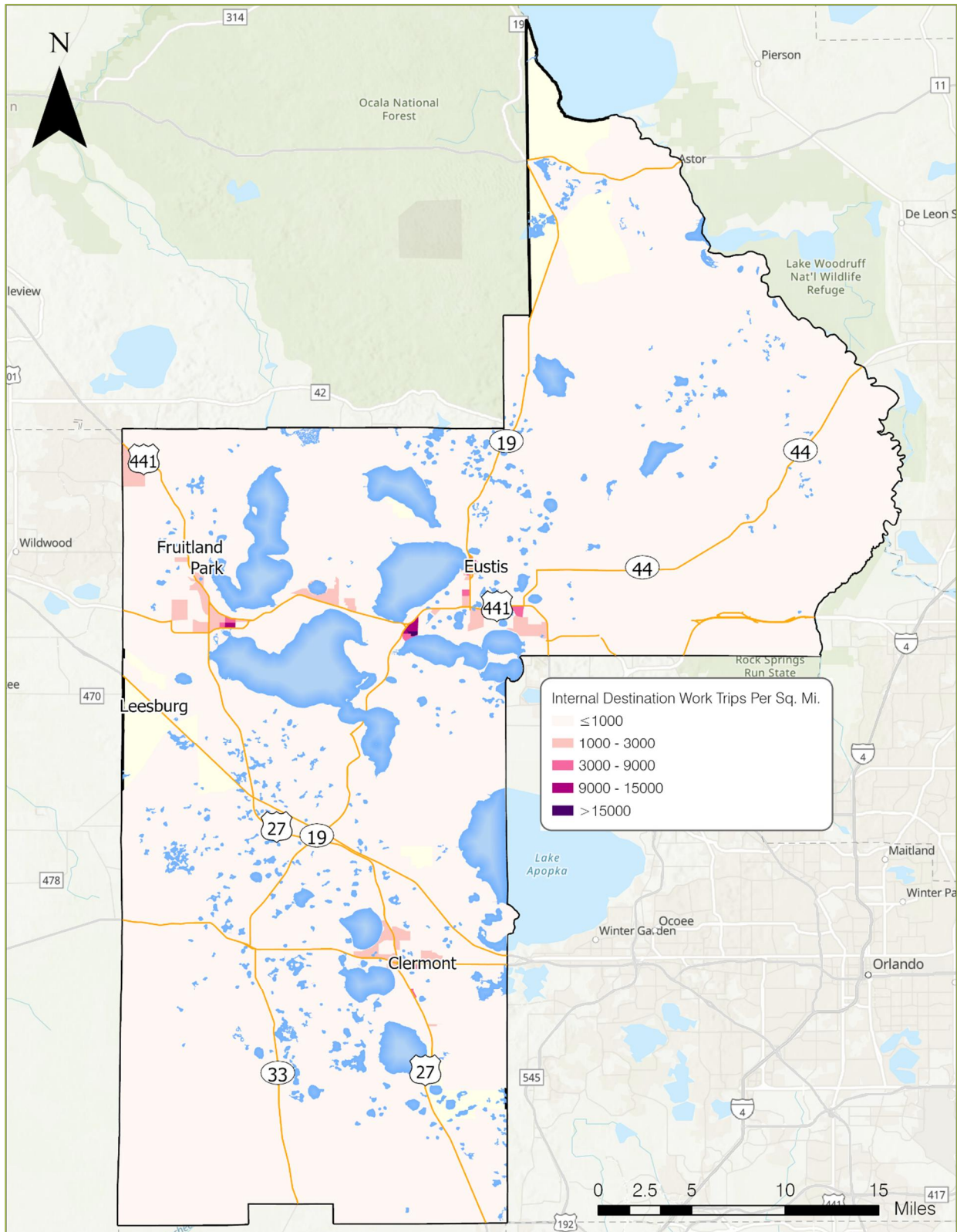


Map 2-13: Number of Work Trips Originating in Lake County (TAZ)





Map 2-14: Number of Work Trips Concluding in Lake County (Census Block Groups)





ECONOMIC CONDITIONS

Major Activity Centers

Major Trip attractors are the places that provide life-sustaining services such as educational, governmental, medical, and shopping needs for residents. Table 2-19 and Table 2-20 show data on major trip attractors and academic institutions within Lake County. Lake County contains three major hospitals, three colleges, and multiple shopping plazas. The shopping plazas below were identified with the highest number of stores. They were home to major grocery stores such as Walmart.

One or more LakeXpress bus routes currently serve the major trip attractors below and represent places that should be accessible to transit-dependent populations.

Table 2-19: Major Trip Attractors in Lake County

Attraction	Details
Lake-Sumter State College	Enrollment: 3,314
Lake Technical College	Enrollment: 1,948
AdventHealth Waterman	Employment: +1000
Orlando Health South Lake Park	Employment: +1000
UF Health Leesburg Hospital	Employment: +1000
Clermont Landing + Clermont Crossings	30+ Shop Plaza
Lake Square Mall	30+ Shop Indoor Mall
Tri-Cities Shopping Plaza	20+ Shop Plaza

Source: Lake County Economic Development Department

Table 2-20: Lake County Educational Institutions

Institution	Enrollment
Beacon College	416
Lake County School Board (K-12)	43,833
Lake-Sumter State College	3,314
Lake Technical College	1,948

Figures are approximate based on most recently reported public school enrollment numbers

Source: Lake County Economic Development Department



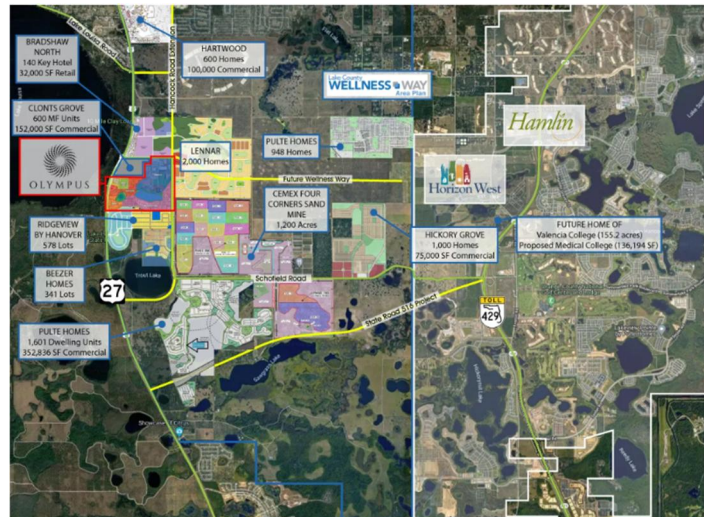
Strategic Corridors

Lake County has served as a “bedroom community” for Orlando, however, the county aims to expand business and industry opportunities. The Lake County Economic Development Department has identified four key strategic corridors for economic development:

- Wellness Way
- Wolf Branch Innovation District
- Minneola Interchange
- Christopher C. Ford Commerce Park

Wellness Way

The Wellness Way corridor plans to capitalize on the human performance training, nutrition, sports, medicine, and health sciences work being done through effective master planning at a South Lake Hospital and Lake-Sumter State College. The area of interest consists of 16,000 acres and is located between Interstate 4, Florida’s Turnpike, and U.S. Highway 27. The Strategic corridor will house approximately 15,500 residential units and over 11 million square feet of non-residential use.



Wolf Branch Innovation District

The Wolf Branch Innovation District is a significant employment center corridor of approximately 1,300 acres along the Wekiva Parkway extension into Mount Dora. The development is anticipated to include commercial, light industrial, and retail land uses.

Minneola Interchange

The Minneola Interchange corridor is located along Florida’s Turnpike in Minneola. The approximate 4,000 acres are anticipated to consist of four mixed-used developments, with over 8,000 residential units and more than 3 million square feet of non-residential space.

Christopher C. Ford Commerce Park

The Christopher C. Ford Commerce Park is Lake County’s largest industrial park, home to over a dozen manufacturing and distribution businesses. The park is on U.S. Highway 27 at the crossroads of SR 19 and Florida’s Turnpike. The growing area is a focal point for industry and employment and LakeXpress has received multiple requests regarding future service or transportation options for Commerce Park employees.



Tourism

Tourism is considered a significant economic driver for Lake County. The County is adjacent to the Orlando metro area, theme parks such as Universal Studios and Disney, and major shopping centers. Additionally, Lake County's tourism agency has sought to increase the visibility of tourism opportunities, focusing on small-town offerings and ecotourism opportunities compared to the nearby urban areas and theme parks associated with Central Florida. For tourism marketing purposes, Lake County has been divided into four regions:

- Forest Gateway: Comprised of north Lake County communities near the Ocala National Forest focused on camping and ecotourism.
- Golden Triangle: Comprised of Eustis, Mount Dora, and Tavares, focusing on small-town offerings and shopping opportunities.
- Northwest Lake: Comprised of Fruitland Park and Leesburg, focusing on small-town offerings and access to horse parks on the border with Marion County.
- South Lake: Comprised of south Lake County communities such as Clermont, Groveland, and Minneola, focused on camping, outdoor fitness, and sports.

Additionally, as defined by Lake County's tourism department, the South Lake region will be home to the Wellness Way Strategic Corridor. As indicated, Wellness Way is a significant undertaking by the County to provide a master-planned community focused on major sporting and training opportunities. As the county grows its tourism industry, special attention should be paid to the demand for transit opportunities for workers and visitors.



Forest Gateway

Ideal for camping and kayaking, the rustic towns surrounding the Ocala National Forest and Alexander Springs are what fishermen's dreams are made of.



Northwest Lake

Small town charm has a party edge in Northwest Lake, where Bikefest and Mardi Gras festivities are balanced by state parks and horse farms.



Golden Triangle

Mount Dora, Tavares and Eustis comprise this area of bountiful lakes and old oak trees, where seaplane rides and Sunday brunch are customary.



South Lake

Home of the triathlon and a designated "Runner Friendly Community," bustling South Lake is a hotspot for athletes.



ROADWAY CONDITIONS

Existing Roadway Conditions

Lake County has grown increasingly urbanized; the 2020 Census has defined new urbanized areas for the County. As of 2020, LakeXpress operates within four different urban areas (UZAs) as defined by the US Census:

- The Villages – Lady Lake, FL
- Leesburg – Eustis – Tavares, FL
- Orlando, FL (Includes Clermont, Groveland, Mascotte, and Minneola)
- Four Corners, FL

As Lake County faces increased population growth and urbanization, LakeXpress service should be prioritized to allow residents and visitors to traverse the County safely and efficiently. Utilizing data from the Lake-Sumter MPO, existing traffic conditions were observed for 2022 and a five-year horizon to 2027 using roadway volume-to-capacity (V/C) measures. Currently, only Routes 1, 2, and 3 operate on highly congested roadway segments; however, congestion is anticipated to increase by 2027.

Future Roadway Conditions

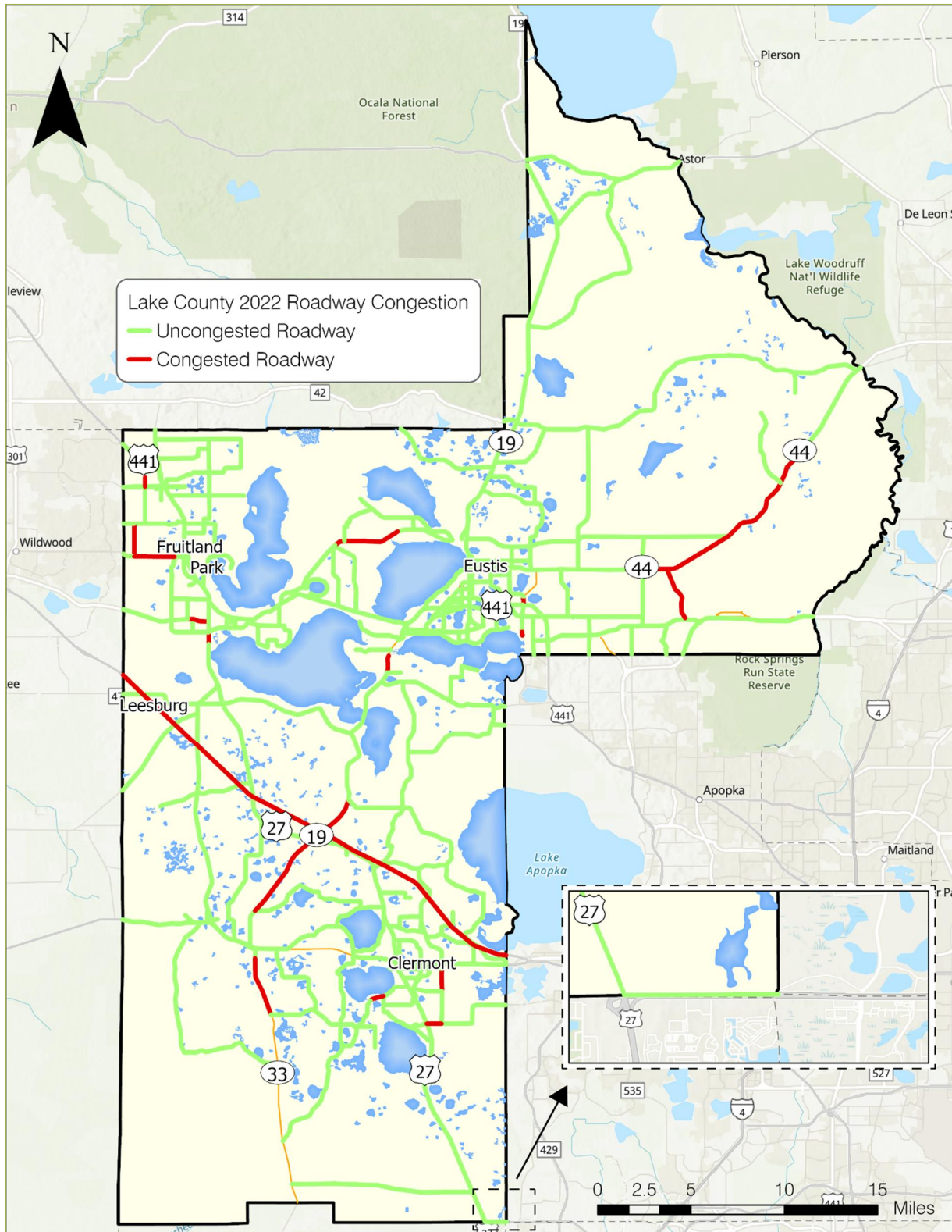
The Lake County Congestion Management Process (CMP) summarizes capacity improvement projects with identified funding by 2025. The planned and funded capacity improvement projects include:

- CR 455 from Hartwood Marsh Road to Lost Lake Road – construct a new two-lane road
- CR 455 from Lost Lake Road to Hartle Road – construct a new two-lane road
- Citrus Grove Road from Turnpike to Blackstill Lake Road – construct a new two-lane road
- Florida's Turnpike from Minneola Interchange to US 27 – widen from four to eight lanes
- Florida's Turnpike from Orange County Line to Minneola Interchange – widen from four to eight lanes
- SR 50 from Hernando County Line to west of CR 757 – widen from two to four lanes
- CR 466A from Timbertop Lane to Poinsettia Avenue – widen from two to four-lanes

Roadway congestion data gathered from the Lake-Sumter MPO is shown for 2022 and 2027 in Map 2-15 and Map 2-16, respectively. The planned and funded capacity improvement projects mentioned allow for improved congestion relief over the five-year timespan.



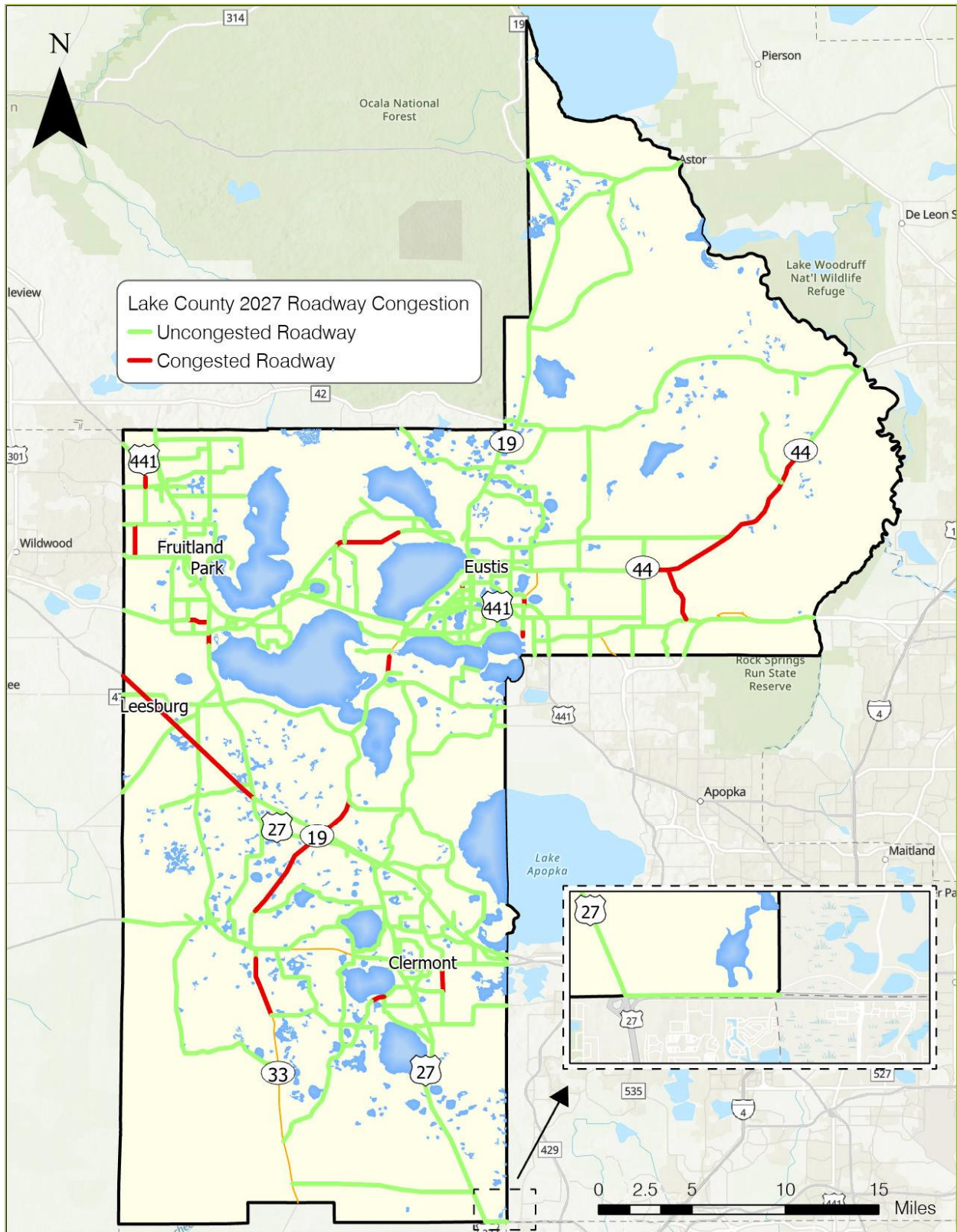
Map 2-15: Lake County 2022 Roadway Congestion



Source: Lake-Sumter MPO (2022) Congestion Management Process



Map 2-16 Lake County 2027 Roadway Congestion



Source: Lake-Sumter MPO (2022) Congestion Management Process



LAND USE

Future Land Use

Understanding future land use (FLU) activities allows for understanding the potential new demand for public services. When combined with data on growth projections (i.e., population, employment, and dwelling unit density), that information supports efforts to plan for short-term and long-term improvements in the system. The future land use map for Lake County is provided in Map 2-17. Select FLU maps for several incorporated cities in Lake County are shown in Map 2-18 through Map 2-20. They include FLU maps for the cities of Eustis, Clermont, and Leesburg.

Lake County

Lake County is primarily zoned as Rural with a maximum density of one dwelling unit per five acres (light green shaded area). The northeast portion of the county is dedicated as a conservation area (teal), as shown in Map 2-17.

There are three major commercial corridors: State Road US Highway 441, State Road 44, and the Ronald Reagan Turnpike. State Road US Highway 441 and State Road 44 are large commercial corridors in the county's northwest portion. The Ronald Reagan Turnpike corridor is located in the southern part of Lake County and is another sizeable commercial corridor. These three significant corridors connect municipalities throughout Lake County but also connect to other major destinations, such as Orlando, Winter Park, Celebration, and Deltona.

Eustis

Eustis is primarily a suburban residential area (shown in yellow on Map 2-18). General commercial (red) and residential transitional (purple) encompass the center of the municipality. The central business district (tan) is located on the edge of Lake Eustis.

Clermont

The Clermont municipality is categorized as master-planned development (purple), as shown in Map 2-19, and stretches down US Highway 27. The State Road 50 corridor in Clermont is surrounded by commercial (red) on both sides. The other parts of the municipality are mainly comprised of low-density residential (yellow).

Leesburg

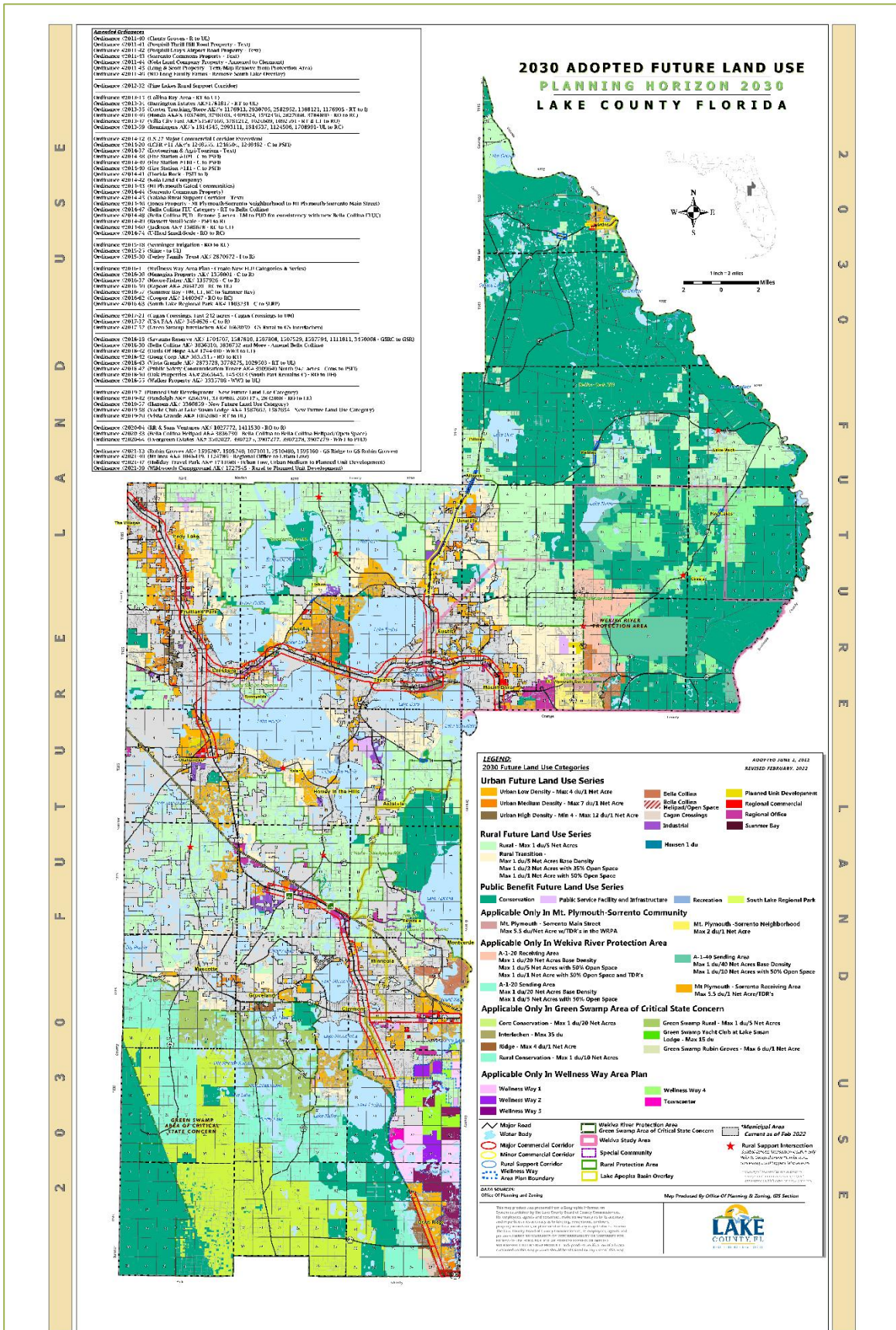
As shown in Map 2-20, the downtown mixed-use district (purple) is surrounded by general commercial (red) and low-density (light-yellow). Lake Harris and Lake Griffin surround the entire municipality. The southwest portion of Leesburg consists of an industrial and technology commerce park (purple), conservation (dark green), and neighborhood mixed-use (light brown).

Groveland

As shown in Map 2-21, growth in urban areas (red) and employment centers (blue) is centered around the intersection of State Road 19 and US Highway 27 (directly south of the Florida Turnpike) as well as near its downtown core. Additional employment center growth is shown along State Road 50 towards Clermont. Housing development (yellow and light brown) is primarily focused on State Road 19.

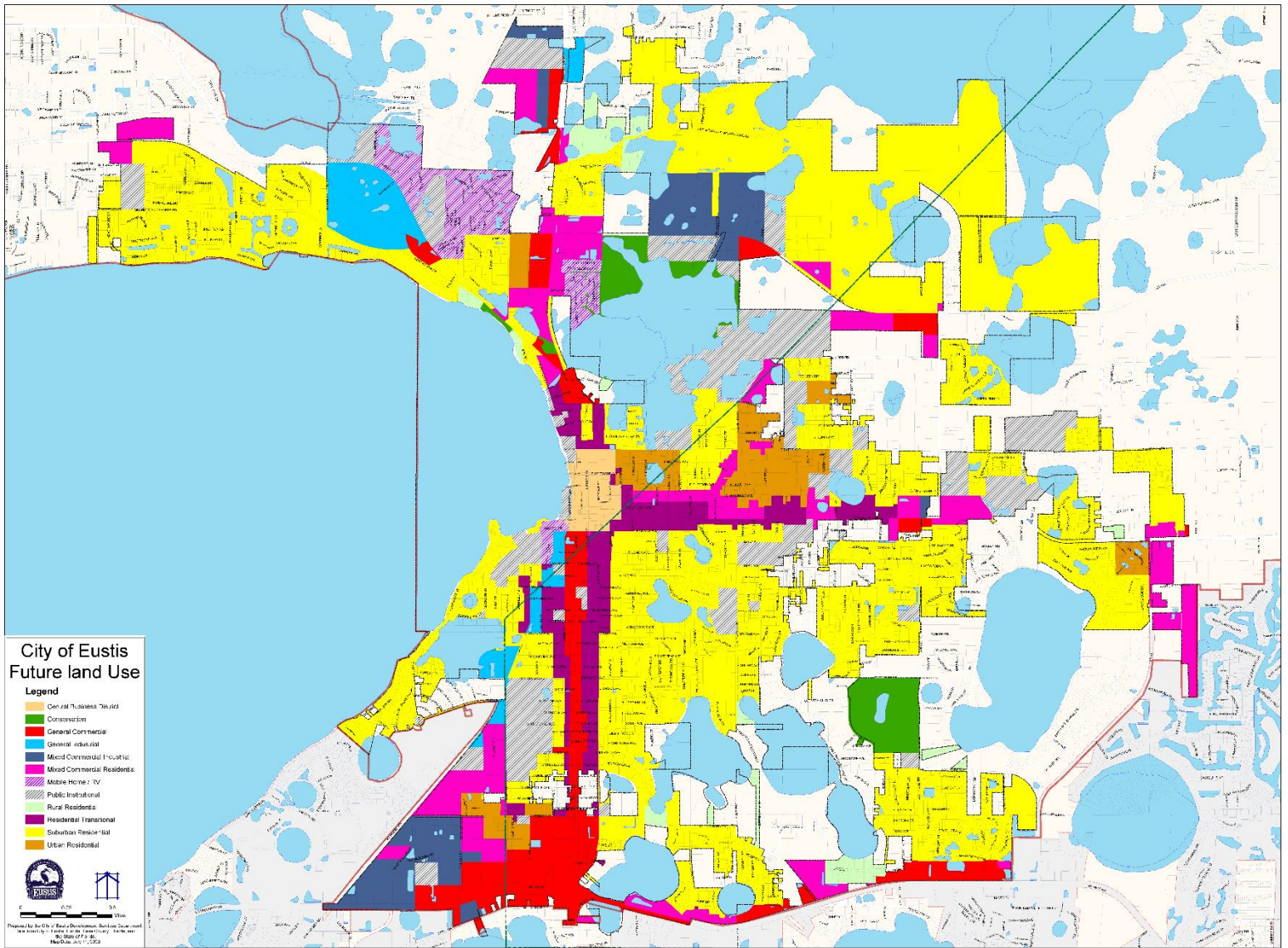


Map 2-17: Future Land Use – Lake County



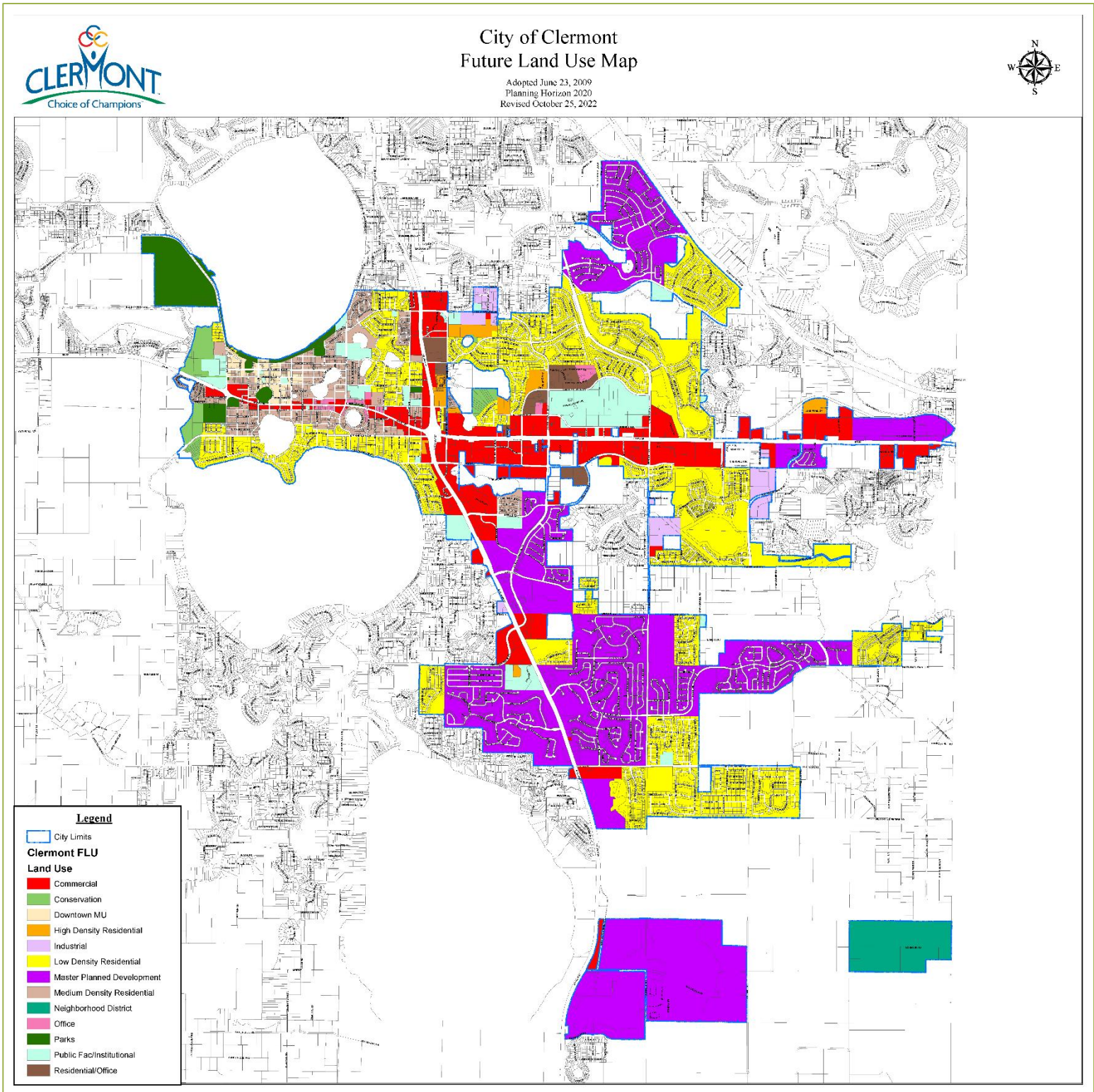


Map 2-18: Future Land Use – Eustis



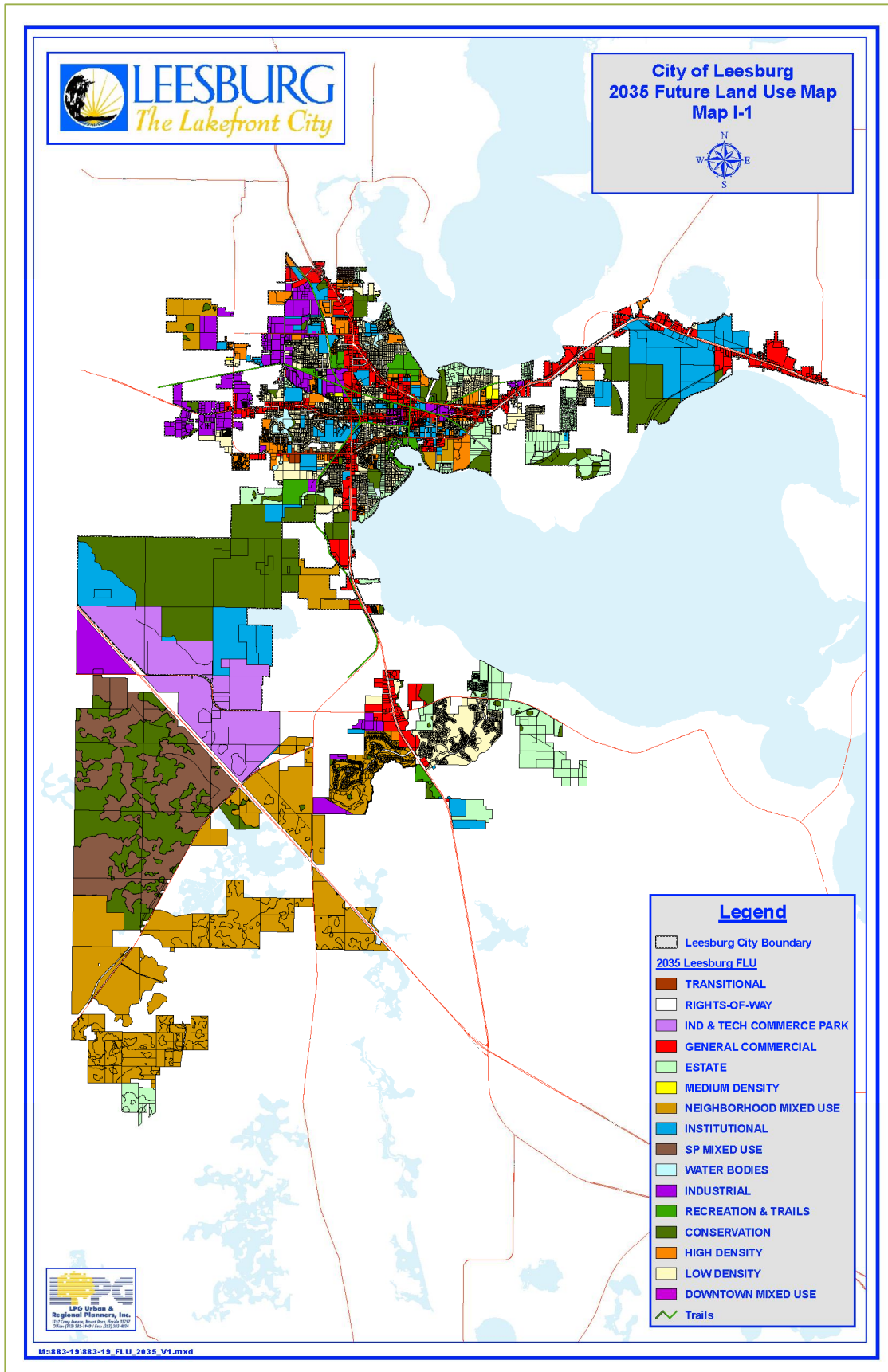


Map 2-19: Future Land Use – Clermont



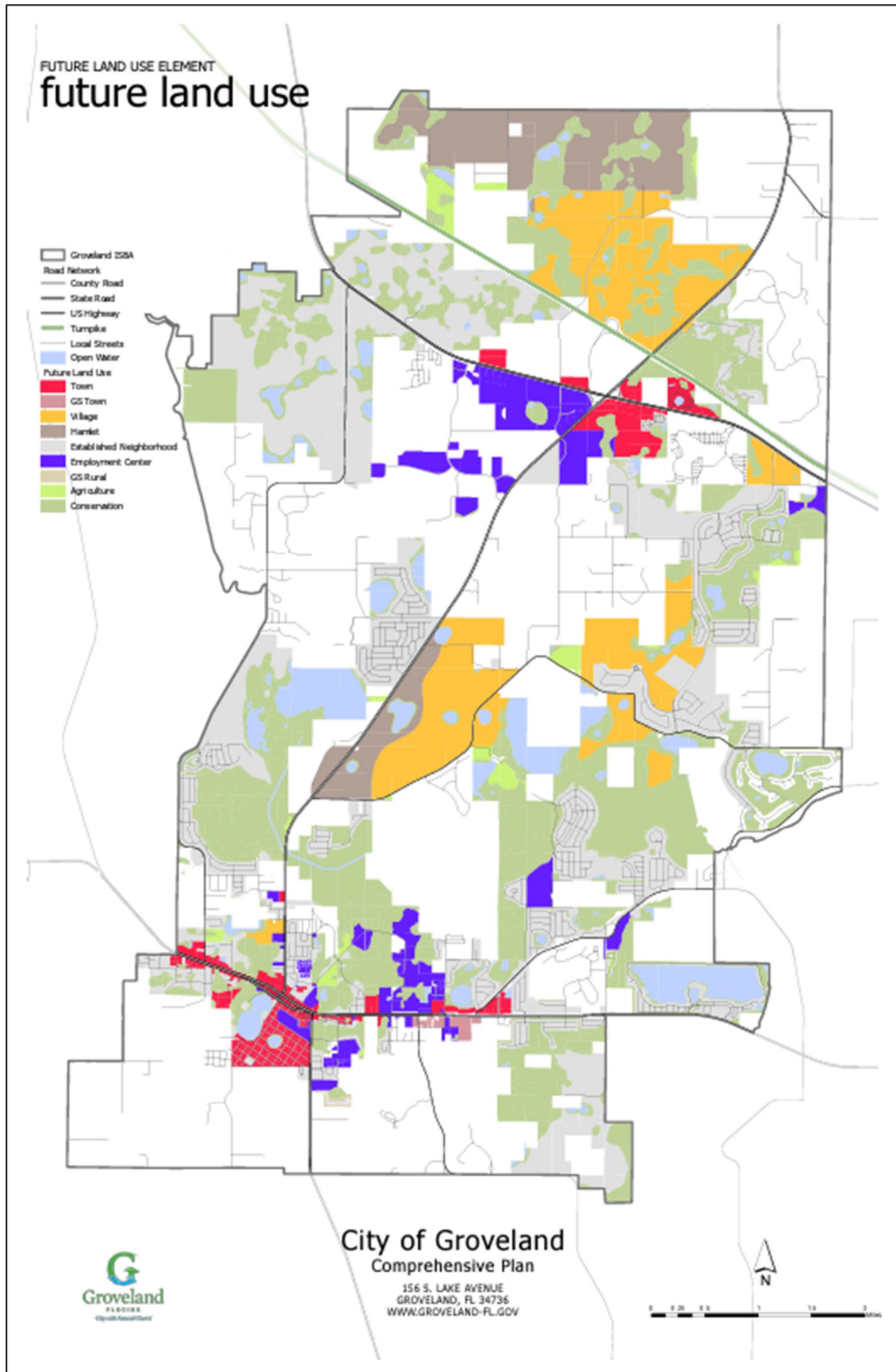


Map 2-20: Future Land Use – Leesburg





Map 2-21: Future Land Use -- Groveland





Section 3 : Existing Services Evaluation

Existing public transportation services in Lake County include both fixed-route and paratransit services contracted by the Lake County Board of County Commissioners. This section includes an overview of public transportation services and facilities provided by LakeXpress, information on Lake County's Americans with Disabilities Act and Transportation Disadvantaged paratransit services (marketed as Lake County Connection), and information on other pertinent transportation services, such as transportation services in neighboring counties and ridesharing services.

EXISTING TRANSIT SERVICES

Fixed-Route Services

LakeXpress operates a total of eight bus routes as part of its fixed-route network, including:

- Route 1 (Leesburg to Eustis)
- Route 1A (The Villages to Leesburg)
- Route 2 (Leesburg Circulator)
- Route 3 (Mount Dora Circulator)
- Route 4 (Altoona to Zellwood)
- Route 50 (Mascotte to Winter Garden)
- Route 55 (Four Corners to U.S. Highway 192)
- South Lake Express (Clermont to Four Corners)

LakeXpress fixed route services primarily operate within Lake County. Fixed-route service times vary by route but are available Monday through Friday from 5:30 a.m. to 9:58 p.m. Buses do not operate on Saturdays, Sundays, and the following federal holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Headways run between 30 and 120 minutes on weekdays, with most routes operating on 60-minute schedules. Notably, the weekend Route 55 service is contracted to LYNX, the fixed-route service operator for Orange, Osceola, and Seminole Counties, to operate as an extension of their Link 55.

LakeXpress Fixed-Route Service Profile

Table 3-1 shows the service profile of the LakeXpress fixed-route service for FY22. Table 3-2 shows FY to date (FYTD) 2023 service profiles through June 30, 2023. As shown below, most routes operate at 60-minute frequencies. The earliest route begins at 5:30 AM (Route 50), and the latest route ends at 9:58 PM (Route 55). Total revenue hours and trips for FY 2022 (October 2021 through September 2022) are also provided. In FY 2022, Routes 1 and 1A experienced the highest total revenue hours and passenger trips. Together, they account for 63% of total revenue hours and 60% of total trips. Additionally, Table 3-2 illustrates the LakeXpress fixed-route service network. In FY23, Route 50E and 50W was consolidated into Route 50 and the South LakeXpress went into service in December 2022.



Table 3-1: LakeXpress Service Profiles (FY 2022)

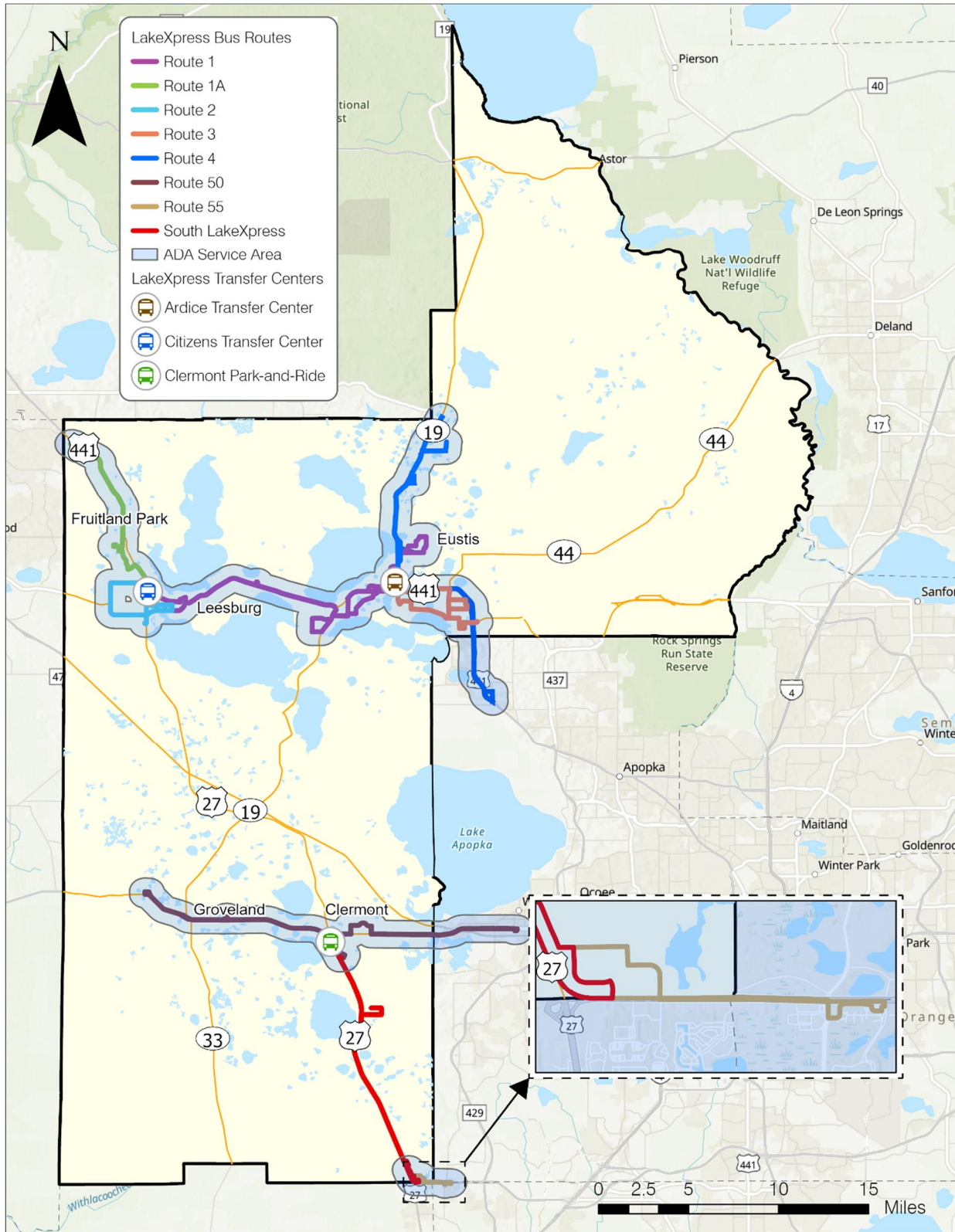
Route #	Route Name	Frequency	Monday-Friday	FY 2022 Revenue Hours	FY 2022 Ridership	FY 2022 Operating Cost Per Route	FY 2022 Trips Per Revenue Hour	FY2022 Cost Per Trip
1	Leesburg to Eustis	60 min	6:00 AM–7:50 PM	9,693	56,864	\$1,040,559	\$5.87	\$18.30
1A	The Villages to Leesburg	60 min	5:49 AM–7:39 PM	6,652	38,536	\$ 714,103	\$5.79	\$18.53
2	Leesburg Circulator	60 min	6:00 AM–6:50 PM	3,254	29,957	\$ 349,322	\$9.21	\$11.66
3	Mount Dora Circulator	60 min	6:38 AM–7:31 PM	3,249	19,104	\$ 348,785	\$5.88	\$18.26
4	Altoona to Zellwood	120 min	7:11 AM–7:09 PM	3,036	13,362	\$ 325,919	\$4.40	\$24.39
50E	Mascotte to Winter Garden	60 min	5:30 AM–9:00 PM	3,586	14,809	\$ 384,963	\$4.13	\$26.00
50W	Winter Garden to Mascotte	60 min	5:30 AM–9:00 PM	3,727	26,506	\$ 400,099	\$7.11	\$15.09
55	Four Corners to U.S. Highway 192	30 min	6:00 AM–9:58 PM	2,707	11,849	\$ 290,601	\$4.37	\$24.53

Table 3-2: Lake Xpress Service Profiles (FYTD 2023 – September 2022 through June 30, 2023)

Route #	Route Name	Frequency	Monday-Friday	FY 2023 Revenue Hours	FY 2023 Ridership	FY 2023 Trips Per Revenue Hour
1	Leesburg to Eustis	60 min	6:00 AM–7:50 PM	7,532	48,640	6.46
1A	The Villages to Leesburg	60 min	5:49 AM–7:39 PM	5,247	32,096	6.12
2	Leesburg Circulator	60 min	6:00 AM–6:50 PM	2,460	25,610	10.41
3	Mount Dora Circulator	60 min	6:38 AM–7:31 PM	2,472	14,588	5.90
4	Altoona to Zellwood	120 min	7:11 AM–7:09 PM	2,298	11,024	4.80
50	Mascotte to Winter Garden	60 min	5:30 AM–9:00 PM	5,699	26,774	4.70
55	Four Corners to U.S. Highway 192	30 min	6:00 AM–8:58 AM 5:00 PM–9:58 PM	1,135	4,158	3.66
South Lake Express	Clermont to Four Corners	60 min	6:00 AM–8:24 AM 5:00 PM–7:24 PM	829	319	0.38



Map 3-1: LakeXpress Service Area





Paratransit Services

Lake County paratransit service operations consist generally of two programs, ADA complementary paratransit services and Transportation Disadvantaged programs. Lake County Connection (LCC) is Lake County's complementary ADA paratransit service and its Transportation Disadvantaged (TD) public transportation service provider for qualified individuals.

ADA Complementary Paratransit

ADA complementary paratransit service is a requirement for all fixed-route public transportation service operators throughout the country. Agencies are required to provide equivalent service to those who are not able to use the fixed route service because of a disability. Eligible customers must complete an application and submit doctor's verification of their disability. Once approved, ADA-eligible persons can request pick ups and drop offs on a door-to-door basis within 3/4-miles of an existing fixed route. The LakeXpress ADA service area is shown in Map 3-1.

Transportation Disadvantaged (TD) Service Programs

As the CTC for Lake County, Lake County administers the TD Program throughout the County. The TD Program was established for individuals who do not have access to any other means of transportation, including public bus service (LakeXpress), because of age, disability, or income. Specifically, the TD Program provides transportation resources to those who do not receive transportation services from a sponsoring agency (an agency that pays for transportation services for their clients, such as Medicaid). LCC services are provided primarily for senior citizens and at-risk children who are mobility and developmentally impaired. LCC is a shared ride, door-to-door service.

LCC is a limited shared ride program whose riders must meet specific eligibility requirements and apply for the service beforehand. To determine if a rider is eligible for LCC services, they must complete an application for door-to-door paratransit service and have it certified by a healthcare professional. The application is available in English and Spanish and may be requested online, by phone, or in person. All trips require prior reservation. Trips must be scheduled one business day before the trip date and not more than two weeks in advance. The service provides pick-ups between 6:00 AM and 6:00 PM, Monday through Friday. Only dialysis trips are available on Saturdays.

Human Service Programs

In addition to the ADA and TD services provided, Lake County also coordinates LCC operations with the Florida Department of Elder Affairs (DOEA) and the Florida Agency for Persons with Disabilities (APD). Both State-sponsored human service agencies purchase paratransit services from LCC for their eligible customers. For DOEA, Lake County provides transportation to their meal sites. For APD, Lake County provides transportation to its sheltered workshops and other eligible programs.

Deviated Fixed-Route

Lake County Transit provides deviated fixed route bus service on Fridays (except for county holidays) to the Paisley and Lake Katherine communities in the extreme Northeast area of the county. The route makes one trip to the Deland Walmart, waits three hours, and then returns. Due to the timetable, only one deviation is allowed per trip. Customers may wait at time points or request flag stops along the route.



FTA Section 5310 and Section 5311 Consistency

Currently, a large share of current services offered through the Lake County Office of Transit Services consists of rural and transportation disadvantaged services. These services are delivered consistent with the requirements of federal funding programs that support their operation. Lake County public transportation services receive regular funding from two specific programs: FTA's Section 5310 and 5311 Programs. Each is described below and serves as an essential funding program for Lake County, given the county's rural land use characteristics and the number of older persons living there.

- FTA Section 5310 – Enhanced Mobility of Seniors and Individuals with Disabilities – This program (49 U.S.C. 5310) provides formula funding to states and designated recipients to meet the transportation needs of older adults and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. Eligible expenses include revenue vehicles, travel training, vehicle maintenance, and operations.
- FTA Section 5311 – Formula Grants for Rural Areas – The Formula Grants for Rural Areas program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000, where many residents often rely on public transit to reach their destinations. Eligible activities include planning, capital, operating, job access and reverse commute projects, and acquiring public transportation services.

Vanpool Services

LYNX operates vanpool services in Lake County. LYNX contracts vanpool service through a third-party vendor. They manage the contract and provide the vehicles for the service. The vanpool driver determines specified schedules and pick up/drop off locations in coordination with the vanpool members. One person from the group volunteers as the primary driver, while all participants may share the driving based on approval of the program criteria and motor vehicle report.



The cost of the LYNX Vanpool service for the individual user varies and is based on the size of the vehicle. The participants share the cost, which includes all maintenance and insurance for the van. Fuel and tolls are additional costs also shared by the participants. Vans can accommodate up to 15 passengers, and a minimum of six to eight participants is recommended.

In addition, LYNX provides a separate, employer-based Vanpool service called the LYNX Agency Program. The cost is a single monthly rate and is usually subsidized by the company interested in providing this service to its employees or clients. The monthly fee covers the van lease, insurance, complete maintenance, and 24-hour roadside service.



Fares

The regular one-way cash fare on the LakeXpress system is \$1.00, including one free transfer on a one-way trip. As shown in Table 3-3, daily passes, 10-ride passes, and 30-day passes are also available. Reduced fares are available at half-price for the following qualifying groups, all of which must present valid identification: seniors ages 60 and older, Medicare cardholders, recipients of Supplemental Security Income (SSI) or Social Security Disability (SSD) benefits, veterans with a valid DD214 card, and individuals with a disability. Students with a valid school ID card or proof of enrollment and children under the age of 5 (when accompanied by a fare-paying chaperone) ride for free.

Table 3-3: LakeXpress Fixed-Route Fares

Fare Category	Regular	Half Price Fare*
One-Way	\$1.00	\$0.50
Daily Pass	\$3.00	\$1.50
10-Ride Pass	\$8.00	\$4.00
30-Day Pass	\$30.00	\$15.00

*Half-price fares are only available to qualified individuals with a valid ID.

Paratransit services are priced separately from fixed-route fares. Riders may purchase a booklet of pre-paid fares in denominations of \$20.00 or \$50.00 before their ride or pay for each ride individually. Rides within Lake County are \$2.00 each way, rides to/from Orlando, Oxford, and Wildwood are \$5.00 each way, and rides to/from Gainesville are \$10.00 each way. Service is provided outside Lake County for medical appointments and only on Tuesdays and Thursdays. More information on LCC is available on the program website: <https://ridelakexpress.com/paratransit>.

TRANSIT FACILITIES

LakeXpress maintains several facilities to accommodate its fixed-route and paratransit services in Lake County, as detailed in the following subsections.

Administration and Maintenance Facility

RATP DEV, Lake County’s third-party operations and maintenance provider, leases a Tavares facility where all vehicles are stored and maintained. The current maintenance and operations facility is located at 560 East Burleigh Boulevard. The Lake County Transit Division administration office is at 2440 U.S. Highway 441/27 in Fruitland Park. The distance between the two offices is about 15 miles.

Transfer Station

There are two designated transfer stations in the LakeXpress fixed route network. Both are considered on-street facilities, including either a bus pullout bay (Ardice Transfer Center) or striped and designated bus parking areas (Citizens Transfer Center). Infrastructure at each location consists of basic passenger amenities such as signage, shelters, benches, lighting, trash cans, ADA-compliant boarding areas, and sidewalk access (i.e., accessible paths).

- Ardice Transit Station – West Ardice Avenue & South Bay Street
 - *Connecting Routes: 1, 3, and 4*
- Citizens Transit Station – Citizens Boulevard & US 27 (North 14th Street)
 - *Connecting Routes: 1, 1A, and 2*



Transfer Areas

In addition to the two transfer stations, five designated transfer areas within the LakeXpress system provide connections between its fixed-route services and those of neighboring area transit agencies, which can be summarized as follows:

- Anthony House on Holly Street in Zellwood
 - *Connecting Routes: Route 4 and LYNX Link 44*
- Winter Garden Regional Shopping Center on State Road 50 in Winter Garden
 - *Connecting Routes: Route 50 and LYNX Link 105*
- FDOT Park-and-Ride lot on US 27 South in Clermont
 - *Connecting Routes: Route 50 and South Lake Express*
- Orlando Health South Lake Hospital
 - *Connecting Routes: Route 55 and South Lake Express*
- West Irlo Bronson Memorial Highway & Legacy Blvd
 - *Connecting Routes: Route 55, LYNX Link 55, and Citrus Connection Route 18X*

Park-and-Rides

Two FDOT-owned and one shared-use park-and-ride lots are located within Lake County.

- Clermont Park-and-Ride – Located along US-27, approximately ½-mile south of State Road 50, is currently served by LakeXpress Route 50 and the South Lake Express and has a capacity of 153 vehicles (6 accessible parking spaces).
- Minneola Park-and-Ride – Located along US-27, approximately 2 miles north of State Road 50, is not currently served by any public transit routes and has a capacity of 101 vehicles (8 accessible parking spaces).
- Mascotte Park-and-Ride – Located at the Mascotte Civic Center on North Sunset Avenue, is a shared-use lot currently served by LakeXpress Route 50 and has a capacity of 10 vehicles (4 accessible parking spaces).

Transit Vehicle Inventory

LakeXpress combines heavy-duty buses, cutaway vehicles, and vans to deliver public transportation services throughout the County. All are ADA-accessible and equipped with wheelchair securement systems.

Vehicles in the fixed route fleet vary in age, with an average age of approximately six years. Four of the vehicles in the fixed route fleet inventory have reached or exceeded their useful life in years. The paratransit fleet consists of 43 cutaway vehicles and vans. A summary of the LakeXpress transit vehicle inventory, including fixed route, paratransit, and support vehicles, is provided in Table 3-4 through Table 3-7, respectively.



Table 3-4: Fixed-Route Vehicle Inventory

#	County ID	Year	Make	Model	VIN	Length	Ambulatory Capacity	Wheelchair Capacity	Standing Capacity
1	25957	2009	Eldorado	EZ Rider II	1N9MNAC659C084224	30'	33	2	16
2	26118	2010	Eldorado	EZ Rider II	1N9MNACL6AC084100	31'	33	2	16
3	26550	2012	Eldorado	EZ Rider II	1N9MNAC61CC084101	31'	33	2	16
4	27913	2013	Eldorado	EZ Rider II	1N9MNAC68DC084159	32'	33	2	16
5	28618	2015	Gillig	Low Floor	15GGB2718F1184635	35'	29	2	16
6	28619	2015	Gillig	Low Floor	15GGB271XF1184636	35'	29	2	16
7	28620	2015	Gillig	Low Floor	15GGB2711F1184637	35'	29	2	16
8	29615	2018	Gillig	Low Floor	15GGB2716J3189779	35'	29	2	16
9	29616	2018	Gillig	Low Floor	15GGB2712J3189780	35'	29	2	16
10	30587	2019	Gillig	Low Floor	15GGB2710K3193036	35'	29	2	16
11	30588	2019	Gillig	Low Floor	15GGB2729K3193025	35'	29	2	16
12	30798	2020	Gillig	Low Floor	15GGE2715L3093734	29'	26	2	10
13	30803	2020	Gillig	Low Floor	15GGE2717L3093735	29'	26	2	10
14	30970	2021	Gillig	Low Floor	15GGE2711M3194666	35'	29	2	16
15	30971	2021	Gillig	Low Floor	15GGE2718M3194664	35'	29	2	16
16	30972	2021	Gillig	Low Floor	15GGE271XM3194665	35'	29	2	16



Table 3-5: Paratransit Vehicle Inventory

#	County ID	Year	Make	Model	VIN	Length	Ambulatory Capacity	Wheelchair Capacity
1	28628	2015	Glaval	Universal	1FDFE4FS9FDA34978	23'	12	2
2	28629	2015	Glaval	Universal	1FDFE4FS0FDA34979	23'	12	2
3	28630	2015	Glaval	Universal	1FDFE4FS7FDA34980	23'	12	2
4	28631	2015	Glaval	Universal	1FDFE4FS9FDA34981	23'	12	2
5	28632	2015	Glaval	Universal	1FDFE4FS0FDA34982	23'	12	2
6	28633	2015	Glaval	Universal	1FDFE4FS2FDA34983	23'	12	2
7	28646	2015	Glaval	Universal	1FDFE4FS8FDA34969	23'	12	4
8	28647	2015	Glaval	Universal	1FDFE4FS4FDA34970	23'	12	4
9	28649	2015	Glaval	Universal	1FDFE4FS8FDA34972	23'	12	4
10	28650	2015	Glaval	Universal	1FDFE4FSXFDA34973	23'	12	4
11	28651	2015	Glaval	Universal	1FDFE4FS1FDA34974	23'	12	4
12	28652	2015	Glaval	Universal	1FDFE4FS3FDA34975	23'	12	4
13	28654	2015	Glaval	Universal	1FDFE4FS7FDA34977	23'	12	4
14	29204	2017	Nations U4X	U4X Van	1FDVU4XG0HKA67570	22'	8	2
15	29205	2017	Nations U4X	U4X Van	1FDVU4XG4HKA67572	22'	8	2
16	29228	2017	Turtle Top	Odyssey	1FDFE4FS5GDC57116	23'	12	3
17	29235	2017	ADA Cara	Van	2C7WDGCG4HR794070	17'	3	1
18	29236	2017	ADA Cara	Van	2C7WDGCG2HR794066	17'	3	1
19	29237	2017	ADA Cara	Van	2C7WDGCG0HR781459	17'	3	1
20	29238	2017	ADA Cara	Van	2C7WDGCG9HR781461	17'	3	1
21	29467	2017	Turtle Top	Odyssey	1FDFE4FS3HDC53065	23'	12	3
22	29468	2017	Turtle Top	Odyssey	1FDFE4FS3HDC55883	23'	12	3
23	29501	2017	Turtle Top	Odyssey	1FDFE4FS5HDC53066	23'	12	3
24	29502	2017	Turtle Top	Odyssey	1FDFE4FS5HDC55884	23'	12	3
25	29636	2018	ADA Cara	Van	2C7WDGCG2JR288808	17'	3	1



Table 3-6: Paratransit Vehicle Inventory (Cont.)

#	County ID	Year	Make	Model	VIN	Length	Ambulatory Capacity	Wheelchair Capacity
26	29651	2018	Turtle Top	Odyssey	1FDFE4FS2JDC28146	23'	12	3
27	29652	2018	Turtle Top	Odyssey	1FDFE4FS4HDC57576	23'	12	3
28	29654	2018	Turtle Top	Odyssey	1FDFE4FS1HDC57583	23'	12	3
29	29834	2018	Turtle Top	Odyssey	1FDFE4FS9JDC28145	23'	12	3
30	30393	2019	Turtle Top	Odyssey	1FDFE4FS0KDC17731	23'	12	3
31	30394	2019	Turtle Top	Odyssey	1FDFE4FS5KDC18485	23'	12	3
32	30395	2019	Turtle Top	Odyssey	1FDFE4FS7KDC18486	23'	12	3
33	30396	2019	Turtle Top	Odyssey	1FDFE4FS0KDC18488	23'	12	3
34	30488	2018	ADA Cara	Van	2C7WDGGBG6JR363057	17'	3	1
35	30489	2018	ADA Cara	Van	2C7WDGGBG6JR362894	17'	3	1
36	30490	2018	ADA Cara	Van	2C7WDGGBG6JR363091	17'	3	1
37	30503	2019	Turtle Top	Odyssey	1FDFE4FS1KDC39952	23'	12	3
38	30504	2019	Turtle Top	Odyssey	1FDFE4FS5KDC39854	23'	12	3
39	30507	2019	Turtle Top	Odyssey	1FDFE4FS3KDC39853	23'	12	3
40	30719	2020	Turtle Top	Odyssey	1FDFE4FS4KDC72795	23'	12	3
41	30720	2020	Turtle Top	Odyssey	1FDFE4FS6KDC72796	23'	12	3
42	30759	2020	Turtle Top	Odyssey	1FDFE4FS8KDC72797	23'	12	3
43	31124	2021	Turtle Top	Odyssey	1FDFE4FN2MDC40876	23'	12	3



Table 3-7: Support Vehicle Inventory

#	County ID	Year	Make	Model	VIN	Length	Ambulatory Capacity	Wheelchair Capacity
1	30914	2021	Ford	Explorer	1FMSK8DH2MGB04970	17'	6	0
2	30915	2021	Ford	Explorer	1FMSK8DH4MGB04971	17'	6	0
3	30916	2021	Ford	Explorer	1FMSK8DH6MGB04972	17'	6	0
4	30939	2021	Ford	Edge	2FMPK4J91MBA06886	16'	4	0
5	30940	2021	Ford	Edge	2FMPK4J98MBA01670	16'	4	0
6	30946	2021	Ford	Edge	2FMPK4J94MBA10026	16'	4	0
7	31052	2021	Ford	F250	1FTBF2BT4MED06394	21'	4	0



ADJACENT COUNTY PUBLIC TRANSPORTATION SERVICES

LYNX (Central Florida Regional Transportation Authority)

Connections between LakeXpress' fixed-route services and neighboring area provider LYNX in Orange County exist at three locations. The first connection is between the LakeXpress Route 50 and LYNX Link 105 at the Winter Garden Shopping Center on State Road 50 in Winter Garden. LYNX Link 105 operates at 30-minute frequencies. The next connection is between the LakeXpress Route 4 and LYNX Link 44 at the Anthony House on Holly Street in Zellwood. LYNX Link 44 operates at 60-minute frequencies. The final connection is between the LakeXpress Route 55, and LYNX Link 55 at West Irlo Bronson Memorial Highway and Legacy Boulevard. LYNX Link 55 operates at 30-minute frequencies. Transferring to and from LakeXpress Route 4 to LYNX Link 44, LakeXpress Route 50 to LYNX Link 105, and LakeXpress Route 55 to LYNX Link 55 is free with a valid transfer pass.

Sumter County Transit

Sumter County Transit (SCT) provides paratransit service for Sumter County along designated routes. However, the shuttles can deviate off the route a short distance (up to $\frac{3}{4}$ mile) to pick up or drop off. Reservations are required for all deviations. Door-to-door shuttle reservations can also be made at least three days in advance. SCT's two shuttle routes do not currently serve any parts of Lake County because it is not within a $\frac{3}{4}$ -mile of the shuttle routes.

SCT travels outside of Sumter County to Leesburg and the Villages for medical appointments if necessary. Out-of-county appointment times must be between 9:00 AM and 2:00 PM. As of the 2020 Census, parts of Sumter County are included in The Villages-Lady Lake urban area, which includes parts of Lake and Marion Counties.

Citrus Connection

Citrus Connection provides fixed-route and paratransit services within Polk County. Citrus Connection's Route 18X connects with LakeXpress's Route 55 and South Lake Express, along with LYNX's Link 55 at West Irlo Bronson Memorial Highway and Legacy Boulevard and the two transit agencies coordinate regularly to improve connections for riders traveling between the two counties.

The 18X operates from 5:45 AM to 7:06 PM on weekdays and from 7:15 AM to 4:06 PM on Saturdays at 90-minute frequencies. Citrus Connection's Route 18X allows LakeXpress riders the ability to connect to the Posner Park transfer point located in Davenport, FL, and access Polk County's fixed-route network.



Other Transportation Providers

There are 16 privately operated non-emergency transportation providers in Lake County, of which 12 are coordination agencies that receive state funding for transportation. There are also multiple “for hire” providers serving the general public.

Table 3-8 is a list of other transportation providers that serve the public. All private transportation providers were contacted for general information about their services. Table 3-9 shows the table of social service providers.

Table 3-8: Privately-Operated/Contracted Service Providers, Lake County

Organizations	Type of Service	Address	Phone	CTC Contracted Operator?
Beacon College, Inc.	Campus/Airport	105 East Main Street, Leesburg	855-220-5374	Yes
Building Blocks Ministries	Adult Disability Transportation	548 South US-27, Suites B & C, Minneola	352-536-9264	Yes
Central Florida Group Homes, LLC	Adult Disability Transportation	1890 State Road 436 #300, Winter Park	407-384-7424	Yes
Crystal Lake Support Environment, LLC, dba Attain, Inc.	Transportation for Residents	2710 Staten Avenue, Orlando	407-985-2791	Yes
Life Care Services	Transportation for Residents	306 Amanda Lane, Leesburg	352-787-0307	Yes
Love Thy Neighbor	Elder Medical Transportation	2106 Butler St, Leesburg	352-787-4997	Yes
Sunrise Arc, Inc.	Adult Disability Transportation	35201 Radio Rd, Leesburg	352-787-3079	Yes
United Way of Lake and Sumter Counties		32644 Blossom Lane, Leesburg	352-787-7530	Yes
Advent Health Transport	Non-Emergency Medical	N/A	352-253-3882	No
Eagle Transport	Non-Emergency Medical	N/A	352-516-7031 or 352-427-7723	No
Independence Transport	Non-Emergency Medical	N/A	352-630-5263	No
Interstate Non-Emergency Medical	Non-Emergency Medical	N/A	352-323-8999	No
Leopard Transport	Non-Emergency Medical	N/A	352-812-1670	No
Life Alliance	Non-Emergency Medical	N/A	407-694-7373	No
Rite Way Transportation	Non-Emergency Medical	N/A	352-516-8229	No
Stellar Transport	Non-Emergency Medical	N/A	352-995-9595	No



Table 3-9: General Public Transportation Providers, Lake County

Organizations	Phone	Type	Service Area	Service Availability	Fares	Vehicle Types	Wheelchair Equipped?
All City Cab	352-602-5810	Taxi Service	Eustis	N/A	N/A	N/A	N/A
Central Taxi	352-383-7433	Taxi Service	Mount Dora and Nearby	M-Su 5:00 AM-2:00 AM	\$3.00 + \$1.50/mile	Sedans & Minivans	No
Clermont Yellow Cab	352-577-8294	Taxi Service, Airport Shuttle	Clermont	24/7	\$2.50 + \$2.50/mile	Sedans & Vans	Yes
Davenport Taxi	407-267-6267	Taxi Service	South Clermont	N/A	N/A	Vans, Minivans, & SUVs	No
Groome Transport	352-539-9664	Airport Shuttle	The Villages, Lake and Sumter Counties	24/7	N/A	N/A	N/A
Kim's Cab	352-239-2133	Taxi Service	The Villages, Lake County	N/A	N/A	SUVs	N/A
Lady Lake Taxi	352-751-2345	Taxi Service	Lady Lake Area	N/A	N/A	N/A	N/A
Lake Shuttle Service	352-932-2677	Shuttle Service	Mount Dora Area and Airports	N/A	N/A	N/A	Yes
Lake Taxi	352-434-9568	Taxi Service	Lake County and Nearby	N/A	\$10.00 + \$2.50/mile	Sedans	N/A
Mr. Taxi	352-365-2676 or 352-396-7337	Taxi Service, Airport Shuttle, Town Car Service, Medical Transportation	Lake County	M-Sa 5:00 AM-10:00 PM	N/A	Sedans & Vans	No
No Limit Taxi	352-321-9333	Taxi Service	Lake County	Su-Th 8:00 AM-12:00 AM F-Sa 8:00 AM-3:00 AM	N/A	Sedans	N/A
Ride N Style	352-455-7787	Party Bus, Limousine	Lake County	24/7	N/A	Sedans & Buses	Yes
Rocket Taxi	352-602-0582	Taxi Service	Golden Triangle Area	M-Th 5:00 AM-2:00 AM F-Sa 5:00 AM-4:00 AM Su 5:00 AM-12:00 AM	N/A	N/A	N/A
Taxi Cab Orlando	407-800-4944	Taxi Service	Clermont	N/A	N/A	Sedans, Minivans, SUVs, Vans, & Buses	N/A
Village Airport Van Shuttle	352-241-2000	Airport Shuttle	The Villages, Lady Lake, Leesburg, Fruitland Park	24/7	N/A	Vans	N/A



Online Resources

The Florida Department of Transportation (FDOT) supports Find a Ride Florida, a transportation provider clearinghouse searchable based on the location and nature of the traveler's trip. Find a Ride Florida can be found at findarideflorida.com. Users select their starting location, destination (optional), the purpose of the trip, and whether they meet further criteria. This resource can be used for any county in Florida, including Lake County.

Find a Ride Florida

Low Vision Users Standard Black/White White/Black Yellow/Blue

Fill out the information below to find your transportation options in Florida
If you are a family member or caregiver, please complete the form on the rider's behalf.

Traveling from:
 [Use my current location](#)

Traveling to: (optional)

What is the purpose of the trip?

Education Work Medical Other

Do any of the following apply?

Age 60 or older

Need escort to and from vehicle

Need accommodation for wheelchair

Find a ride



Ridesharing Services

Ridesharing services continue to grow their footprint in Lake County. Multiple municipalities within Lake County are operational areas for the two most common providers (Uber and Lyft), including Mount Dora and Clermont. There are also drivers working throughout the county and nearby cities and counties, serving passengers traveling to/from and within Lake County.

Ridesharing providers serve a critical purpose in the modern transportation landscape. Depending on their proximity to existing fixed-route and demand-response transit services, ridesharing providers can be a competition for the services provided by LakeXpress and LCC. However, numerous instances exist where these services complement traditional transportation options, filling spatial and/or temporal gaps. Ridesharing services also have certain disadvantages compared to fixed-route and paratransit service options. They are typically more expensive and do not always accommodate bicycles, wheelchairs, and other mobility devices.

SYSTEM LEVEL PERFORMANCE ANALYSIS (TREND ANALYSIS)

Introduction

A systemwide performance analysis (trend analysis) was conducted for Lake County's fixed-route transit system (LakeXpress). Data was obtained from the FTA's National Transit Database (NTD) for fiscal years 2018-2022 to examine general service, productivity, maintenance, cost efficiency, and service coverage trends. The trends reviewed include the following:

- General Service: The overall level of transit service provided by the agency and consumed by its customers.
- Service Productivity: How many passengers are served per service unit and how well agency resources are deployed.
- Maintenance Productivity: Assessment of the LakeXpress fleet inventory and how well vehicles are maintained and operated.
- Cost Efficiency and Effectiveness: The financial performance of transit services provided.
- Service Coverage: The degree to which service is provided to the service area.

This five-year timespan includes an analysis of LakeXpress operations during the COVID-19 Pandemic. This significant and disruptive public health emergency had major impacts on transit operations, specifically during its peak from FY 21 to FY 22. As a result, ridership and fare revenues collected declined rapidly for transit agencies nationwide. While the recovery for transit systems is still ongoing, the pandemic had considerable impacts on several performance measures in this trend analysis. Observed changes between FY 19-21 may relate to the relationship between public policies and behavior over the pandemic.



General Service Measures

Table 3-10 provides an overview of the general service metrics for LakeXpress transit operations, highlighting changes between FY 2018-2022. General service measures include agency characteristics and overall levels of transit service provided by the agency and consumed by its customers. These operating statistics calculate coverage, effectiveness, efficiency, and productivity measures. The following general trends can be observed between FY 18 and FY 22:

- Passenger trips (ridership) decreased by 41.5%, with significant decreases observed between FY 20 and FY 21. Ridership had increased slightly between FY 18 and 19 before decreasing drastically in FY 20 and FY 21. Ridership again increased somewhat in FY 22 but has not reached pre-pandemic levels.
- Passenger miles decreased 40.0% from FY 18 and 22, consistent with observed ridership trends over the same period. Passenger miles remained consistent between FY 18 and FY 19 and decreased significantly after.
- Vehicle miles decreased by 3.0% between FY 18 and 22. Vehicle miles decreased the most between FY 20 and FY 21 to reflect reduced service during COVID-19 but have slightly increased between FY 21 and FY 22, nearing pre-pandemic amounts.
- Revenue miles decreased 3.9% between FY 18 and 22. Revenue miles reflect the distance vehicles are in revenue service, regardless of whether passengers are transported.
- Vehicle and revenue hours decreased 2.2% and 2.0%, respectively, between FY 18 and FY 22. These trends were consistent with decreases in vehicle and revenue miles.
- Operating Expense increased by 8.6%, between FY 18 and FY 22. In comparison, passenger fare revenues decreased by 41.2% during the same time. Operating expenses remained consistent between FY 18 and FY 19 before a more significant increase in FY 22. The decrease in fare revenues collected is consistent with ridership trends during the same time.
- Peak Vehicles Operated have remained steady at 10 peak vehicles, between FY 18 and FY 22.

As indicated, while overall vehicle and revenue miles and hours remained steady over the five-year time, ridership fluctuated significantly during the same period. This suggests that service levels provided by LakeXpress did not change in response to decreased ridership over five years.

Table 3-10: General Service Measures, FY 2018-2022

General Measures	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	% Change FY18 - FY22
Passenger Trips (Ridership)	340,650	353,945	262,108	183,419	199,138	-41.5%
Passenger Miles	2,132,469	2,137,828	1,672,249	1,245,415	1,280,457	-40.0%
Vehicle Miles	643,253	631,935	635,196	605,422	624,038	-3.0%
Revenue Miles	571,150	567,788	569,841	537,316	548,750	-3.9%
Vehicle Hours	37,043	37,127	37,317	35,005	36,238	-2.2%
Revenue Hours	33,859	34,221	34,401	31,976	33,196	-2.0%
Operating Expense	\$3,282,348	\$3,360,356	\$3,220,076	\$3,269,074	\$3,563,644	8.6%
Passenger Fare Revenue	\$156,846	\$148,242	\$99,633	\$90,424	\$92,245	-41.2%
Peak Vehicles Operated	10	10	10	10	10	0.0%



Service Productivity Measures

Table 3-11 provides an overview of service productivity measures derived from the general service measures described. These measures assess how well passengers are served per unit of service provided by LakeXpress transit services. The following service productivity trends can be observed between FY 18 and FY 22:

- Passenger trips per revenue hour and revenue mile both decreased by 40.4% and 39.5%, respectively, between FY 18 and 22, with the most significant decreases observed between FY 20 and FY21 during the height of COVID-19. These decreases indicate that Lake County transit services carry fewer passengers per hour and have not returned to pre-pandemic amounts.
- Revenue hours and miles per peak vehicle decreased by 2.0% and 3.9%, respectively, between FY 18 and FY 22. While consistent with decreases in revenue hours and miles observed during this timeframe, these decreases are negligible and indicate that revenue miles and hours per peak period have remained steady.
- Spare ratio, or the number of spare vehicles divided by the vehicles required in peak service, has remained steady between FY 18 and FY 22.

The overall service productivity trends indicate that LakeXpress transit operations carry fewer passengers per revenue hour and revenue mile today than 5-years ago and have not reached pre-pandemic levels. Despite significant decreases in trips per unit of service, revenue hours and miles per peak vehicle have not lowered by the same amount. This indicates that LakeXpress has not reduced revenue hours or miles operated despite decreases in total trips.

Table 3-11: Service Productivity Measures, FY 2018-2022

Performance Measures	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	% Change FY18 - FY22
Passenger Trips per Revenue Hour	10.1	10.3	7.6	5.7	6.0	-40.4%
Passenger Trips per Revenue Mile	0.6	0.6	0.5	0.3	0.4	-39.5%
Revenue Hours per Peak Vehicle	3,386	3,422	3,440	3,198	3,320	-2.0%
Revenue Miles per Peak Vehicle	57,115	56,779	56,984	53,732	54,875	-3.9%
Spare Ratio	60.0	60.0	60.0	60.0	60.0	0.0%

Maintenance Productivity Measures

Table 3-12 provides an overview of FY 2018-2022 maintenance productivity measures. These measures evaluate the condition and maintenance quality of Lake County's transit fleet inventory. The following maintenance productivity trends can be observed between FY 18 and 22:

- The Average active fleet age (years) decreased by 3.0% between FY 18 and 22. This indicates that the fleet consists of newer vehicles as older ones have been phased out. This newer fleet may correspond with fewer mechanical issues and more reliable service.
- Vehicle miles and revenue miles between service disruptions have increased 23.3% and 22.1%, respectively, between FY 18 and 22. This indicates fewer vehicle mechanical issues and failures occur between vehicle miles operated.



- Service disruptions have decreased by 21.3% between FY18 and 22. On its own, this measure only reflects a raw number. More importantly, mileage between service disruptions (i.e., mechanical breakdowns) provides a better understanding of the condition of the fleet and the quality of fleet maintenance practices.

The overall maintenance trends indicate that LakeXpress transit operations have lowered mechanical issues and related service interruptions during the analysis period. This may result from enhanced maintenance practices and adherence to the agency’s fleet replacement plan.

Table 3-12: Maintenance Productivity Measures, FY 2018-2022

Performance Measures	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	% Change FY18 - FY22
Average Age of Active Fleet (Years)	6.6	7.3	7.0	5.1	6.4	-3.0%
Number of Service Disruptions	122	183	168	101	96	-21.3%
Vehicle Miles Between Service Disruption	5,273	3,453	3,781	5,994	6,500	23.3%
Revenue Vehicle Miles Between Service Disruption	4,682	3,102	3,392	5,320	5,716	22.1%

Cost Efficiency and Effectiveness

Table 3-13 provides an overview of cost efficiency and effectiveness measures between FY 2018-2022. These measures evaluate the financial performance of transit services provided by LakeXpress. The following cost efficiency and effectiveness measures can be observed between FY 18-22:

- Operating expense per capita has increased 7.9% between FY 18 and 22. This measure indicates the level of investment in transit services in the County.
- Operating expense per passenger trip has increased 46.1% between FY 18 and 22. This cost increased substantially from FY19-21 and is attributed to the decrease in ridership due to the pandemic.
- Operating expense per revenue mile and hour increased by 11.5% and 9.7%, respectively, between FY 18 and 22. Service levels (i.e., total revenue hours and total revenue miles of service) have remained relatively constant over the analysis period. Increases in operating expenses are commensurate with overall increases in operating expenses over the five-year trend analysis period.
- Farebox recovery ratio has decreased substantially by 75.1% between FY 18 and 22. As previously discussed, the significant reduction of operating expenses recouped through fare collection is heavily connected to the decrease in ridership attributed to the COVID-19 pandemic.

The overall cost efficiency and effectiveness trends indicate that LakeXpress transit operations have become more expensive and have collected less fare revenue over the past five years. Operating expenses per passenger trip have increased substantially during this time due to the decrease in total passenger trips over the same time frame. This trend is consistent among many transit agencies nationwide due to the COVID pandemic.



Table 3-13: Cost Efficiency and Effectiveness Measures, FY 2018-2022

Performance Measures	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	% Change FY18 - FY22
Operating Expense per Capita	\$33.67	\$34.47	\$33.03	\$33.53	\$36.55	7.9%
Operating Expense per Passenger Trip	\$9.64	\$9.49	\$12.29	\$17.82	\$17.90	46.1%
Operating Expense per Revenue Mile	\$5.75	\$5.92	\$5.65	\$6.08	\$6.49	11.5%
Operating Expense per Revenue Hour	\$96.94	\$98.20	\$93.60	\$102.24	\$107.35	9.7%
Farebox Recovery Ratio	4.8	4.4	3.1	2.8	2.7	-75.1%

Service Coverage Measures

Table 3-14 provides an overview of FY 18 and 22 service coverage measures. These measures evaluate the degree to which LakeXpress fixed-route services are provided throughout Lake County and its population. The following service coverage trends can be observed between FY 18 and 22:

- Vehicle revenue hours and miles per square mile of the service area have decreased slightly by 2.0% and 3.9%, respectively, between FY 18 and 22
- Vehicle revenue hours and miles per service area population did not change and decreased by 5.1% between FY 18 and 22. The decrease in vehicle revenue miles per service area population correlates with the reduction of vehicle revenue miles per square mile of service area.
- Passenger trips per service area population decreased by 42.9% between FY 18 and 22. This indicates reduced trips using the LakeXpress bus service per person.

The overall service coverage trends indicate that LakeXpress transit operations have slightly decreased over the past five years. Total coverage decreased slightly between FY 21 and FY 22 compared to previous years, while passenger trips per service area population decreased significantly.

Table 3-14: Service Coverage Measures, FY 2018-2022

Performance Measures	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	% Change FY18 - FY22
Vehicle Revenue Hours per Square Mile of Service Area	476.9	482.0	484.5	450.4	467.5	-2.0%
Vehicle Revenue Miles per Square Mile of Service Area	8,044	7,997	8,026	7,568	7,729	-3.9%
Vehicle Revenue Hours per Service Area Population	0.3	0.4	0.4	0.3	0.3	0.0%
Vehicle Revenue Miles per Service Area Population	5.9	5.8	5.8	5.5	5.6	-5.1%
Passenger Trips per Service Area Population	3.5	3.6	2.7	1.9	2.0	-42.9%



Trend Analysis Key Takeaways

The trend analysis is an important TDP analysis tool as it allows for the evaluation of changes over time. Key takeaways for the trend analysis completed for this TDP Major Update include the following.

- Passenger trips are slowly rebounding from the impacts of the Covid pandemic. Fixed-route ridership levels further increased in FY 23 to almost 215,000, an eight percent increase from FY 2022.
- Many of the decreases reflected in productivity related measures are a function of the Covid pandemic and the trend experienced by LakeXpress is consistent with nationwide trends where most transit agencies saw large decreases in ridership in FY 2020 and FY 2021, but are slowly seeing ridership return to pre-pandemic levels in FY 2022 and FY 2023.
- Despite a slight reduction in revenue service hours (2%), operating expenses continue to increase. The trend analysis reflects an 8.6 percent increase between FY 2018 and FY 2022. This equates to an increase in the overall cost per revenue hour, which increased from \$96.94 in FY 2018 to \$107.35 in FY 2022.
- Maintenance productivity measures point to a positive trend where miles between disruptions have increased by over 20 percent and the average age of the fleet has been maintained to just over six years over the course of the five-year trend analysis.
- Service coverage measures magnify how the population growth in Lake County has not equated to commensurate increases in public transportation use (i.e., change in passenger trips per service area population).

PEER REVIEW

Introduction

Agency peer reviews assess the efficiency and effectiveness of an agency's operations compared to similarly situated transit agencies. The peer review serves as a companion analysis to the trend analysis, and together, the two studies provide a strong foundation for understanding the strengths and opportunities of the transit system.

The peer review performed for this TDP Update compares LakeXpress to six peer agencies. The selection of agency peers is based on three factors:

- Florida Transit Information System (FTIS) TCRP G-11 Peer Selection Method. This method uses NTD data to identify comparable transit agencies across the country. Factors include service area characteristics (i.e., urbanized area population, service area population, service area size) and operational characteristics (i.e., vehicles operated in maximum service, passenger trips). https://ftis.org/iNTD-Urban/tcrp_141.pdf
- Review of previous LakeXpress peers
- Professional judgment and consultation with LakeXpress staff

The resulting peers are shown in Table 3-15. They include four small Florida transit agencies and two out-of-state agencies. The two out-of-state agencies reflect small agencies near or adjacent to a growing metro area. For example, Clarkesville, Tennessee, is experiencing population growth impacts given its proximity to the growing Nashville, Tennessee, metro area, and Concord, North Carolina, is also experiencing rapid growth and development due to its nearness to Charlotte, North Carolina.



The performance of the fixed route systems will be compared to selected peer systems using NTD data for consistency. The analysis is based on four general categories of performance measures, which are consistent with the performance categories included in the trend analysis:

- General Service: The overall level of transit service the agency provides and is consumed by its customers.
- Service Productivity: How many passengers are served per unit of service and how well agency resources are deployed.
- Cost Efficiency and Effectiveness: The financial performance of transit services provided.
- Service Coverage: The degree to which service is provided to the service area.

Table 3-15: Selected Peers

Agency Name	City	State
Emerald Coast Rider (EC Rider)	Crestview	FL
SunTran	Ocala	FL
Concord Area Transit (CAT)	Concord	NC
Escambia County Area Transit (ECAT)	Pensacola	FL
Clarksville Transit System (CTS)	Clarksville	TN
St. Johns County	Saint Augustine	FL

General Service Measures

Table 3-16 and Table 3-17 show general service measures for LakeXpress and the selected peers. As described above, these measures depict the overall level of transit service from agency and consumer perspectives. Overall, LakeXpress is near average compared to its peers in most general service measures. In terms of passenger trips, revenue miles, vehicle hours, and vehicle miles, LakeXpress is below average in performance. The agency is above the average of its peers in passenger miles, vehicle miles, and operating expenses. The current fleet operates at a higher expense and greater mileage with less than average passenger trips.

Table 3-16: Fixed-Route General Service Measures, FY 2021

Agency Name	Passenger Trips (Ridership)	Passenger Miles	Vehicle Miles	Revenue Miles	Vehicle Hours	Revenue Hours	Average Fleet Age	Operating Expense
LakeXpress	183,419	1,245,415	605,422	537,316	35,005	31,976	5.1	\$3,269,074
Emerald Coast Rider (EC Rider)	53,071	308,342	390,660	368,176	30,090	28,017	6.8	\$1,143,562
SunTran ¹	209,733	N/A	N/A	472,679	N/A	33,229	1.8	\$2,695,501
Concord Area Transit (CAT) ¹	314,041	N/A	N/A	712,501	N/A	40,608	6.0	\$3,862,844
Escambia County Area Transit (ECAT)	329,927	2,010,767	597,977	564,854	44,176	42,471	6.3	\$3,482,277
Clarksville Transit System (CTS) ¹	436,734	N/A	N/A	1,206,129	N/A	72,306	4.5	\$5,366,381
St. Johns County ¹	99,596	N/A	N/A	576,711	N/A	33,290	3.1	\$1,454,876

¹ Due to fleet sizes under 30 vehicles, the following agencies have reduced reporter status and are not required to report all general service measures



Table 3-17: Fixed Route General Service Measures Comparison, FY 2021

Measures	LakeXpress	Peer Minimum	Peer Maximum	Current Peer Mean	LakeXpress % Current Mean
Passenger Trips (Ridership)	183,419	53,071	436,734	240,517	-23.7%
Passenger Miles	1,245,415	308,342	2,010,767	1,159,555	7.4%
Vehicle Miles	605,422	390,660	597,977	494,319	22.5%
Revenue Miles (VRM)	537,316	368,176	1,206,129	650,175	-17.4%
Vehicle Hours	35,005	30,090	44,176	37,133	-5.7%
Revenue Hours (VRH)	31,976	28,017	72,306	41,654	-23.2%
Average Fleet Age	5.1	1.8	6.8	4.78	5.6%
Operating Expense	\$3,269,074	\$1,143,562	\$5,366,381	\$3,000,907	8.9%

Service Productivity

Table 3-18 and Table 3-19 show service productivity, which examines the supply of service (i.e., unit of service) against utilization amongst peers. Units of service include per revenue hour, revenue mile, and peak vehicle operated. LakeXpress performs above average in a key productivity statistic, passenger trips per vehicle revenue hour.

Table 3-18: Fixed-Route Peer Service Productivity, FY 2021

Agency Name	Passenger Trips per VRM	Passenger Trips per VRH	VRM per Peak Vehicle	VRH per Peak Vehicle
LakeXpress	0.3	5.7	53,732	3,198
Emerald Coast Rider (EC Rider)	0.1	1.9	36,818	2,802
SunTran	0.4	6.3	67,526	4,747
Concord Area Transit (CAT)	0.4	7.7	89,063	5,076
Escambia County Area Transit (ECAT)	0.6	7.8	33,227	2,498
Clarksville Transit System (CTS)	0.4	6.0	67,007	4,017
St. Johns County	0.2	3.0	64,079	3,699

VRM – Vehicle Revenue Miles; VRH – Vehicle Revenue Hour

Table 3-19: Fixed-Route Peer Service Productivity Measures Comparison, FY 2021

Measures	LakeXpress	Peer Minimum	Peer Maximum	Current Peer Mean	LakeXpress % Current Mean
Passenger Trips per VRM	0.34	0.14	0.58	0.36	-4.2%
Passenger Trips per VRH	5.7	1.9	7.8	5.5	5.2%
VRM per Peak Vehicle	53,732	33,227	89,063	59,620	-9.9%
VRH per Peak Vehicle	3,198	2,498	5,076	3,806	-16.0%



Cost Efficiency and Effectiveness

Table 3-20 and Table 3-21 show cost efficiency and effectiveness measures, indicating how well LakeXpress allocates resources across services. LakeXpress has above-average operating expenses and per-unit costs compared to its peers. Due to the global COVID-19 pandemic of 2020, many transit agencies chose to operate fare-free to maintain ridership. CAT enacted fare-free transit on April 20, 2020, thus having the lowest farebox recovery percentage of the peers. No other suspension of fare data was reported to NTD by other agencies for FY 21.

Table 3-20: Fixed-Route Cost Effectiveness and Efficiency, FY 2021

Agency Name	Total Operating Expenses per Trip	Total Operating Expenses per Revenue Hour	Total Operating Expenses per Revenue Mile	Operating Expenses per Capita	Farebox Recovery
LakeXpress	\$17.82	\$102.24	\$6.08	\$33.53	2.8%
Emerald Coast Rider (EC Rider)	\$21.55	\$40.82	\$3.11	\$5.82	5.0%
SunTran	\$12.85	\$81.12	\$5.70	\$31.13	5.9%
Concord Area Transit (CAT)	\$12.30	\$95.13	\$5.42	\$33.99	0.0%
Escambia County Area Transit (ECAT)	\$10.55	\$81.99	\$6.16	\$19.87	11.0%
Clarksville Transit System (CTS)	\$12.29	\$74.22	\$4.45	\$39.61	9.5%
St. Johns County	\$14.61	\$43.70	\$2.52	\$5.32	3.0%

Table 3-21: Fixed-Route Cost Effectiveness and Efficiency Measures Comparison, FY 2021

Measures	LakeXpress	Peer Minimum	Peer Maximum	Current Peer Mean	LakeXpress % Current Mean
Total Operating Expenses per Passenger Trip	\$17.82	\$10.55	\$21.55	\$14.03	27.1%
Total Operating Expenses per Revenue Hour	\$102.24	\$40.82	\$95.13	\$69.50	47.1%
Total Operating Expenses per Revenue Mile	\$6.08	\$2.52	\$6.16	\$4.56	33.3%
Operating Expenses per Capita	\$33.53	\$5.32	\$39.61	\$22.62	48.2%
Farebox Recovery	2.8%	0.0%	11.0%	5.7%	-51.7%



Service Coverage

Table 3-22 and Table 3-23 show service coverage measures that examine the level of service an agency provides in its service area compared to its population and geographic coverage. At 71 square miles, LakeXpress has one of the smallest service areas among its selected peers. The average service area is over 256 square miles. This influences other statistics, such as operating miles and service hours per square mile. Both statistics are above the average peer, reflecting that LakeXpress provides service to a smaller area than its peers. LakeXpress serves just above the average passenger trips per capita among its peers.

Table 3-22: Fixed-Route Service Coverage, FY 2021

Agency Name	Service Area (Sq. Miles)	Service Area Pop.	VRH per Sq. Mile of Service Area	VRM per Sq. Mile of Service Area	VRH per Service Area Pop.	VRM per Service Area Pop.	Passenger Trips per Service Area Pop.
LakeXpress	71	97,497	450.4	7,568	0.3	5.5	1.9
Emerald Coast Rider (EC Rider)	120	196,512	233.5	3,068	0.1	1.9	0.3
SunTran	62	86,589	536.0	7,624	0.4	5.5	2.4
Concord Area Transit (CAT)	78	113,639	520.6	9,135	0.4	6.3	2.8
Escambia County Area Transit (ECAT)	758	175,216	56.0	745	0.2	3.2	1.9
Clarksville Transit System (CTS)	105	135,471	688.6	11,487	0.5	8.9	3.2
St. Johns County	600	273,425	55.5	961	0.1	2.1	0.4

VRM – Vehicle Revenue Miles; VRH – Vehicle Revenue Hour

Table 3-23: Fixed-Route Service Coverage Measures Comparison, FY 2021

Measures	LakeXpress	Peer Minimum	Peer Maximum	Current Peer Mean	LakeXpress % of Current Mean
Service Area (Sq. Miles)	71	62	758	256	-72.3%
Service Area Population	97,497	86,589	273,425	163,475	-40.4%
VRH per Sq. Mile of Service Area	450.4	55.5	688.6	348.4	29.3%
VRM per Sq. Mile of Service Area	7,568	745	11,487	5,503	37.5%
VRH per Service Area Population	0.3	0.1	0.5	0.3	11.9%
VRM per Service Area Population	5.5	1.9	8.9	4.6	18.8%
Passenger Trips per Service Area Population	1.9	0.3	3.2	1.8	3.4%



Peer Review Key Takeaways

The trend analysis is an important TDP analysis tool as it allows for the evaluation of changes over time. Key takeaways for the trend analysis completed for this TDP Major Update include the following.

- Despite lower overall ridership levels, LakeXpress is just above the mean for the benchmark service productivity measure, passenger trips per revenue hour.
- Overall, LakeXpress supplies less service, 32,000 annual revenue hours of service, versus the peer group average, 42,000.
- Cost efficiency remains a challenge. Importantly, the results shown in the peer review are a function of the FY 2021 ridership data used which reflects the lowest ridership year across the five year trend analysis presented in the previous section.
- Farebox returns are anticipated to slowly return to prior year levels as ridership levels also continue to bounce back.
- LakeXpress is the second smallest agency in terms of service area population. The smallest being LakeXpress neighbor to the north, Suntran, who operates in Marion County. Both counties consist of large rural areas and this is consistent with this part of Florida where public transit agencies must stretch their services to meet the needs of their ridership base.



Section 4 : Public Outreach

Consistent with requirements in the FDOT TDP Rule (FAC 14-73), a TDP-specific Public Involvement Plan (PIP) was developed at the onset of the project to guide the public outreach process and to provide a strategy to reach out and educate community residents, stakeholders, and LakeXpress bus riders about the TDP. The PIP was critical in ensuring the TDP implementation plan reflects the community's desires for this TDP Major Update.

The PIP developed for the FY 2023 TDP Major Update is included in Appendix A and contains goals and specific public involvement activities that were performed to inform the plan development process. This section summarizes those outreach activities and the information gathered throughout the public outreach process.

PUBLIC INVOLVEMENT ACTIVITIES

Several public participation strategies were employed to reach LakeXpress riders, potential riders, concerned community members, and stakeholder organizations to maximize public involvement. Those strategies and activities consisted of a variety of engagement tools encompassing in-person activities and digital outlets. Many of the materials and notifications were made available through the LakeXpress website and advertisements at bus stops and transfer centers and on service vehicles. The outreach activities performed for the TDP were selected to maximize public participation during the plan development process.

Public involvement activities were organized into three categories:

1. Gathering Public and Stakeholder Feedback
2. Promotion & Outreach
3. Digital Media Engagement

Examples of the various engagement materials used for the public involvement process are found in Appendix B.

GATHERING PUBLIC AND STAKEHOLDER FEEDBACK

Goal: Obtain public input from the community, stakeholders, and internal audiences on the current LakeXpress transit experience.

Prior and Ongoing Efforts

This major update acknowledges all previous public involvement efforts performed by LakeXpress staff. All earlier efforts for public involvement and outreach are essential as service improvement is an ongoing and continuous process that occurs throughout the year and is not limited to just the timing of TDP development.

Kickoff and Adoption Meetings

Staff attended and presented TDP major update materials at meetings and to critical groups such as the Lake County BOCC and the MPO Board. These meetings helped inform and gather feedback concerning the major update, which



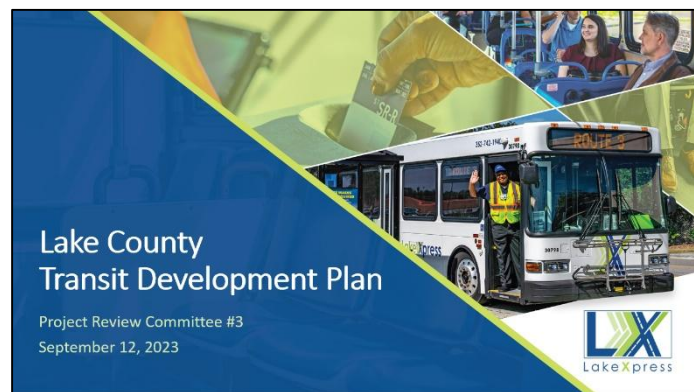


led to the adoption of the major update by the Lake County Board of County Commissioners at their November 28, 2023, meeting.

- Lake County BOCC Meeting #1: September 26, 2023 – This meeting served as the Transit Development Plan Kickoff presentation to the BOCC. The meeting informed the Commission of the efforts to develop the FY23-24 Transit Development Plan, including required elements, project timeline, public outreach goals, preliminary findings, and the schedule for adoption.
- MPO Board: October 25, 2023 – A presentation of the Draft TDP Plan elements was presented to the MPO Board. The MPO Board consists of representation for all incorporated and unincorporated areas of Lake County. Information on the TDP update, results, and findings, and an overview of the TDP 10-year financial and implementation plan were provided to the Board.
- Lake County BOCC Meeting #2: November 28, 2023 – This was the final adoption meeting for the TDP in preparation for submittal to FDOT. The BOCC was briefed on plan goals and the 10-year TDP financial and implementation plan elements.

Project Review Committee (PRC) Meetings

A Project Review Committee (PRC) was formed to guide the overall TDP Major Update process. The PRC consisted of LakeXpress, MPO, Regional Workforce, and Lake County staff. The group met multiple times during the plan's development and reviewed and approved the project timeline, engagement strategies, plan goals, and the alternatives development and evaluation process. Given the RPC membership's technical expertise and service area knowledge, the group validated many plan elements consistent with the FDOT TDP Rule.



Four meetings were held with the PRC throughout the project's life; each occurred at critical milestones during the plan development process. Meetings, including content covered by the PRC, are summarized below.

- Meeting #1 – July 11, 2023 – This first meeting provided an overview of the TDP major update process and discussed public outreach strategies. Staff presented information concerning the proposed peer agency review, trend analysis, coordination items, and PRC priorities.
- Meeting #2 – August 8, 2023 – The second meeting included a status update of all TDP-related efforts completed to date and provided the PRC with information concerning the LakeXpress fixed route service profile, demographic profiles, ridership forecasts, and public engagement efforts. In addition, a discussion was held with the group regarding service needs.
- Meeting #3 – September 12, 2023 – Included a status update on TDP ongoing efforts and a review of draft TDP goals and objectives. Service and capital needs and alternatives were refined with the PRC, along with a discussion on the evaluation framework to prioritize proposed service changes.
- Meeting #4 – October 17, 2023 – The fourth PRC meeting focused on presenting preliminary financial summaries and discussion of the 10-year program of improvements.



Lake County Transit Staff TDP Alternative Workshop

A workshop with key staff from Lake County’s Office of Transit Services was conducted in August 2023 to discuss initial service alternatives, capital, and technology needs. The list of service improvements would eventually be included in a public survey to be shared online and at workshops. The staff alternatives workshop also discussed various TDP elements, including technical analyses and coordination elements required to implement the TDP’s proposed service changes and initiatives. Furthermore, Lake County Transit staff shared subject matter expertise into the needs of LakeXpress riders and operators and provided local context for the LakeXpress operating environment.

Public Workshops

Three (3) public workshops were held in September 2023 to publicize information about the TDP process and to provide an opportunity to collect feedback from workshop participants on public transportation needs. Key elements of the workshops include the following:

- Each workshop was held in a different part of the LakeXpress service area, including Groveland, Mount Dora, and Leesburg, to promote a balanced opportunity to publicize the TDP Major Update and allow feedback from customers and stakeholders from the entire service area.
- All workshops were offered in a hybrid format, where attendees could participate in person or virtually. This allowed for hearing from attendees who could not join in person.
- Workshops were held in locations that were near existing transit services and at ADA-accessible facilities.
- An introductory presentation to the TDP process was conducted at the beginning of each workshop, followed by a question-and-answer session. The remainder of each workshop was performed in an open-house format.
- Map boards depicting the areas of higher transit demand and need and an interactive board of proposed service changes were displayed in the workshop meeting space. A survey instrument was made available at the workshops in paper format and electronically.
- A separate virtual workshop facilitator monitored questions from virtual participants.
- Presentation materials were posted on the LakeXpress website in order to reach those not able to attend the live workshops.

Survey materials were translated into Spanish, and Spanish-speaking staff were available during the workshops to provide interpretation services. Though not requested, translation and interpretation in languages other than English and Spanish were also available upon request.

Lake County Transit Development Plan

WE WANT YOUR FEEDBACK!




Help us identify public transportation service priorities for Lake County residents and visitors.

Workshops will be held in-person and virtually. Scan the QR code or visit <https://ridelakeexpress.com/news/tdp> for more information and to access the virtual meeting options.

Groveland	Mount Dora	Leesburg
Wednesday, September 6	Thursday, September 7	Monday, September 11
4:30 PM – 6:30 PM	4:30 PM – 6:30 PM	4:30 PM – 6:30 PM
E. L. Puryear Building 243 South Lake Avenue	Community Building Green Room 520 North Baker Street	Venetian Center 1 Dozier Circle

For more information, please contact Bill Hearndon, Transit Operations Supervisor, at (352) 901-0965 or bill.hearndon@lakecountyfl.gov






The date, time, and location of each workshop included:

- Groveland
Wednesday, September 6, 2023, 4:30 p.m. – 6:30 p.m.
234 South Lake Avenue
E.L. Puryear Building
- Mount Dora
Thursday, September 7, 2023, 4:30 p.m. – 6:30 p.m.
520 North Baker Street
Community Building Green Room
- Leesburg
Monday, September 11, 2023, 4:30 p.m. – 6:30 p.m.
1 Dozier Circle
Venetian Center



Legal Advertisements

LakeXpress advertises official meetings through various methods depending on the type and locations of the sessions. These notifications are also published in Spanish in compliance with Executive Order 13166, *Access to Services for Persons with Limited English Proficiency (LEP)*. The notices were also available on the LakeXpress website for translation into other languages and on LakeXpress social media channels (Facebook, Twitter, and Instagram).

In-Person Outreach and Grassroots Activities

In-person outreach allows staff to engage one-on-one with riders and obtain meaningful input. To that end, efforts were made to engage directly with bus riders at multiple LakeXpress bus stops and transfer locations. Grassroot outreach initiatives such as appearances at public career fairs and farmer’s markets and onboard surveys conducted by staff were influential in guiding the TDP Major Update process. A total of three (3) in-person outreach events were conducted. A deliberate effort was made to distribute activities throughout the LakeXpress service area. Both English and Spanish-speaking staff were present at all outreach events to ensure community members from different backgrounds were able to give feedback. In-person outreach and grassroots activities included the following locations:



Cagans Crossing Farmers Market
September 8, 2023
Town Center at Cagan Crossing
600 Cagan Park Avenue, Clermont, FL 34714

Staff attended the Cagan's Crossing Farmers Market to present the TDP major update information. This effort allowed for more significant input from residents of the Four Corners area, a major growth area in Lake County. Residents were able to view project posters, including information about the existing service, and staff was able to solicit feedback on future service improvements from residents.



Lake County Career Fair
September 12, 2023
Venetian Center
1 Dozier Circle, Leesburg, FL

Staff attended the Lake County Career Fair hosted by Career Source Central Florida. Staff tabled at the fair, provided information concerning the TDP update, and collected feedback via the TDP survey. Staff was able to answer questions and get in-person feedback from job seekers and multiple organizations working within the community. The career fair allowed for the opportunity to bridge the link between workers and jobs, further promoting the services of LakeXpress as affordable and available to those who need them.



South Lake County Career Fair
September 20, 2023
Clermont Arts and Recreation Center
3700 S. Hwy 27, Clermont, FL

Staff attended the South Lake County Career Fair hosted by Career Source Central Florida. The Clermont career fair was similar in function and content to the Leesburg career fair, where staff were tabled and able to provide all interested persons with information concerning the TDP update and collect feedback via the TDP survey. Staff was able to answer questions and get in-person feedback from job seekers and multiple organizations working within the community. The career fair allowed for the opportunity to bridge the link between workers and jobs, further promoting the services of LakeXpress as affordable and available to those who need them.



The opportunities at the Career Fairs are also significant to the TDP process in that they assist in satisfying the requirement to coordinate with the Regional Workforce Board.



Transit Development Plan Survey

An online and paper survey tool was developed to gauge perspectives from respondents on the existing service and potential future service alternatives for LakeXpress. The survey instrument was available online on the project website and distributed via a QR code and a link on outreach materials. Those links were shared at the PRC meetings and via paper and digital (on tablets) formats at all public workshops and in-person outreach events.

In addition to distribution via the website and outreach materials, a survey team boarded LakeXpress buses to survey bus riders directly; this was the most effective way to gather input from bus riders. The results of the on-board survey effort proved to be the most robust set of feedback collected among all the engagement efforts performed for this TDP Major Update. The interview-style approach for the on-board survey effort effectively achieved rider input by conversing and engaging with people who utilize LakeXpress service to meet their travel needs. Onboard surveys allowed an opportunity for anecdotal feedback while having conversations about LakeXpress service. Onboard surveys aimed to cover all fixed-routes, times of day, and days of the week, to talk to riders using the system at different timespans and to gain feedback concerning existing service and future service alternatives.

English and Spanish language versions of the survey were prepared in hard copy and digital format (see Appendix B). The survey was developed using the Survey Monkey platform. It included twenty-eight questions related to demographic information and questions about respondents' experience using the transit system and service alternative preferences. A total of 188 survey responses were collected and summarized in the following subsection. Twenty-one of the 188 surveys (11%) were completed in Spanish.

Survey responses are organized into the following four major categories:

- Demographic Information – Include questions about respondents' race, age, household income, and other demographic information. This information allows LakeXpress to better understand who is using their services.
- Customer Profile – Questions in this category query users about how they use the service and for what reasons.
- Customer Service – Customer service questions gauge satisfaction with current LakeXpress service.
- Service Improvements – Critical to the TDP process, respondents were asked about what improvements could be made to make LakeXpress better for them.

Summary results for all questions on the survey are presented in a series of charts and graphs in Appendix C. In addition, key take aways drawn from the information collected include the following.

- Over 75 percent of respondents indicated using LakeXpress because they cannot transport themselves. Major reasons included not having a valid driver's license, being unable to drive, and having no vehicle access.
- LakeXpress bus riders consist mainly of regular users of the system. Over 80 percent use LakeXpress more than 2 or 3 days a week.



- Forty-three percent of respondents indicated they have both a cellphone with a data plan AND a personal bank account or credit card. This information is critical for understanding how quickly a potential mobile ticket program would be adopted and used. This result indicates a need for Wi-Fi technology if internet-based passenger technology is considered for implementation in the future.
- Ninety-percent of respondents walk or ride their bike to the bus stop, emphasizing the need for safe pedestrian paths connecting to LakeXpress bus stops.
- Over 80 percent of respondents rated their bus service experience in the last year as good or very good. This indicates that bus riders are generally happy with the service provided.
- Only 5 percent of respondents indicated using the online trip planning tool, and fourteen percent indicated using Google Maps for trip planning. More importantly, most use either the printed (22.6%) or website (21.1%) schedules, which implies routine maintenance to ensure the accuracy of that data at all times. In addition, regular updates of the Google Maps data is also relevant, given the level of use by respondents.
- Forty-seven percent of respondents indicated paying the full cash fare when boarding LakeXpress buses. This result reveals additional questions regarding the accessibility of other fare media, particularly the 1-Day, 10-Ride, and 30-Day passes, which allow for discounted per-ride fares when used regularly.
- When asked how many working vehicles were available at home, over 60 percent of respondents indicated having none.
- The top three service alternatives indicated by respondents included the following:
 - Weekend Service (72%)
 - More Frequent Service (48%)
 - Later Evening Service (46%)

PROMOTION & OUTREACH

Goal: Create community interest and support for involvement in the LakeXpress TDP.

Visual communication and promotional materials were developed and distributed to the community to facilitate a robust outreach campaign for the project and promote overall engagement.

These materials include:

- Project presentations
- QR Codes
- LakeXpress website graphics
- Flyers
- Display posters
- Legal advertisements

Title VI of the Civil Rights Act of 1964

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons wishing to express concerns relative to compliance with Title VI may do so by contacting:

Title VI Compliance

Lake County Office of Transit Services
2440 U.S. Highway 441/27
Fruitland Park, FL 34731
Attn: Transit Program Specialist/Title VI Specialist
abradford@lakecountyfl.gov
(352) 323-5733

As indicated in the list of materials, elements of this promotion and outreach component of the PIP were integrated into multiple facets of the overall public outreach effort.



These materials were distributed at various outlets, including at public meetings, during outreach activities, at LakeXpress bus stops, and through PRC partners. Materials were also developed in Spanish. Materials in other languages were available upon request.

LakeXpress branding was infused into each of the outreach materials and activities. This was done to strengthen public awareness of the project and to create additional visibility for LakeXpress. The guiding principles taken from the brand allowed for the creation of marketing materials that were visually appealing and easily recognizable.

DIGITAL MEDIA ENGAGEMENT

Goal: Encourage additional engagement with the project through digital platforms.

Electronic media and communications materials were developed in various formats, including a project website, and messaging posted on LakeXpress bus stops and inside buses. All media content was translated and made available in Spanish. Samples of the ads are included in Appendix B, and details on website media efforts are provided below.

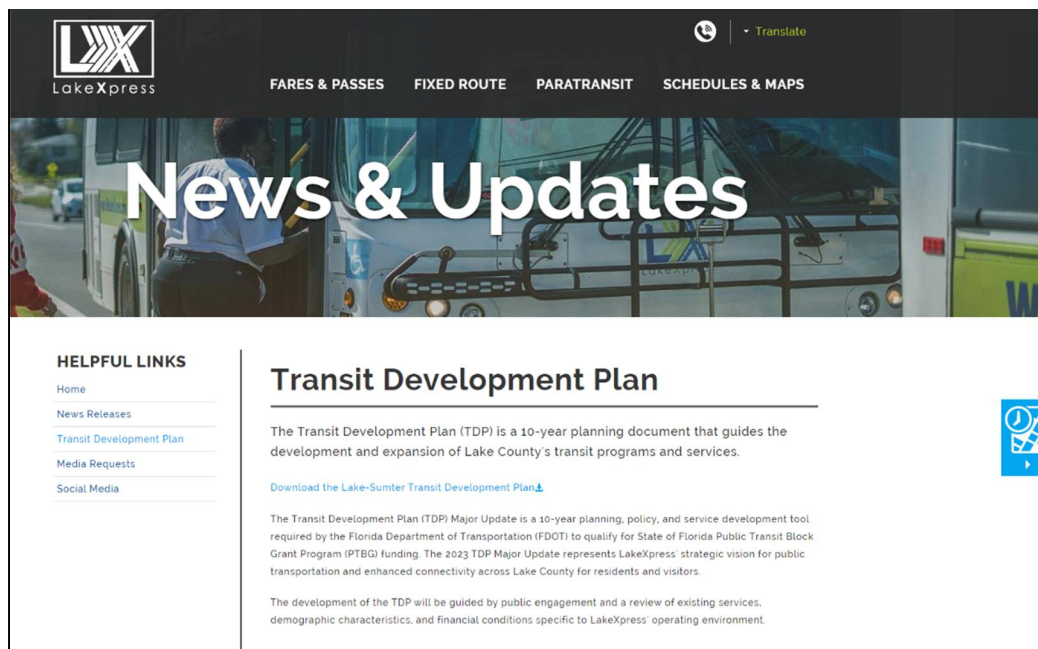
Website

A project webpage was created to post TDP project content, including project details, meeting schedules, and survey links (Figure 4-1). The website was created for all interested individuals and groups to learn about the TDP major update process and potential changes that may result from the planning effort. In addition, the English and Spanish versions of the TDP survey were posted on the TDP webpage.

The project website content consisted of the following information:

- Study purpose and overview
- Interactive elements such as a link to the online survey and workshop presentations
- Contact information, including an email address to send comments
- Promotional web banner

Figure 4-1: Project Website Page





Section 5 : Situational Appraisal

Florida Rule 14-73.001 notes that the TDP situation appraisal shall consider the areas relevant to the transit agency's operating environment: state and local transportation and land use plans, socioeconomic trends, impacts of transit-friendly land use decisions, organizational issues, and transit system technology. The following sections synthesize the previous efforts in the TDP and the plans review to develop an assessment of the complete operating environment for LakeXpress. This assessment is the basis for formulating LakeXpress' service needs, TDP goals, and objectives.

REVIEW OF PLANS AND STUDIES

A supportive component of the TDP Update is a review of recent transit, transportation, and land use policies and programs. Various organizations conduct studies from the local to the federal level to yield useful plans that address local and regional public transportation concerns, many of which impact LakeXpress. This section assesses relevant federal, state, and local planning activities by FDOT, Lake County, local municipalities, and the Lake Sumter MPO. Various transportation planning and programming documents are summarized, emphasizing projects and issues affecting Lake County's public transportation.

The following local and regional plans were reviewed to understand current transit policies and plans with potential implications for LakeXpress' services and to help the TDP become a plan that will guide local transportation decision-making:

Local Plans and Programs

- Lake County Comprehensive Plan
- City of Eustis 2035 Comprehensive Plan
- Eustis Downtown Master Plan
- Clermont Comprehensive Plan
- City of Clermont Downtown & Waterfront Master Plan "Enhance, Connect, Grow"
- Leesburg Growth Management Plan / Comprehensive Plan
- Groveland 2040 Comprehensive Plan
- Mount Dora 2045 Comprehensive Plan
- Tavares 2040 Comprehensive Plan
- Downtown Tavares Redevelopment Master Plan
- Umatilla 2035 Comprehensive Plan
- 2021 LakeXpress TDP Annual Progress Report
- 2018 LakeXpress TDP Major Update
- 2023 Lake County Transportation Disadvantaged Service Plan (TDSP)
- Lake County ADA Transition Plan

Regional Plans and Programs

- 2045 Lake-Sumter LRTP
- 2045 MetroPlan Orlando Metropolitan Transportation Plan
- East Central Florida 2060 Strategic Policy Plan
- Transportation Improvement Program (TIP)



- Unified Planning and Work Program
- List of Unfunded Priority Projects

Federal and State Plans and Programs

- Fixing America’s Surface Transportation (FAST) ACT
- Florida Transportation Plan: Horizon 2060 (FTP)
- State of Florida Transportation Disadvantaged 5-Year/20-Year Plan

Additionally, Table 5-1 provides a legend of acronyms often associated with the reviewed plans and studies for this TDP.

Table 5-1: Legend of Acronyms

Acronym	Full Name
ADA	American Disabilities Act
CP	Comprehensive Plan
FCTD	Florida Commission for the Transportation Disadvantaged
FDOT	Florida Department of Transportation
FTP	Florida Transportation Plan
LRTP	Long-Range Transportation Plan
MPO	Metropolitan Planning Organization
TDSP	Transportation Disadvantaged Service Plan
USDOT	United States Department of Transportation



Table 5-2: Local Plans & Programs

Plan/Program/ Study Reviewed	Geographic Applicability	Responsible Agency	Plan/Program Overview	Recommendations / Objectives / Strategies
Lake County Comprehensive Plan (2023)	Lake County	Lake County	The comprehensive plan addresses land use, capital improvements, conservation, housing, intergovernmental coordination, parks and recreation, transportation, public facilities, and property rights for the county.	<ul style="list-style-type: none"> Goals include: <ul style="list-style-type: none"> Encouraging regional transit connections Locating future services near large parking areas Improving connectivity with other travel modes Prioritizing transit solutions to constrained corridors over road-widening Development of TOD guidelines Coordinate with medical and other private sector transit providers serving retirement communities Transportation concurrency exceptions are provided to projects promoting public transportation.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> The plan explicitly intends to create transit-supportive zones and corridors to support fixed-route services as identified in LakeXpress' TDP. Evaluation of transportation providers to retirement communities aims to identify areas to expand and increase the productivity of paratransit services; coordination will lessen adverse environmental and traffic impacts from inadequate service delivery and duplication of service. Policy initiative to promote transportation demand management through employer-based public transit subsidies and park-and-ride facilities. Access to convenient transit service is recommended for future land use (FLU) designations of urban low-density through urban high-density, regional office, and regional commercial uses. The 2017 Evaluation and Appraisal Report removes the requirement to use only professionally accepted techniques for measuring the level of service (LOS) for transit service. It eliminates the concurrency provisions previously applied to transit in urban infill and redevelopment areas. Public transit facilities include connection or transfer facilities and fixed-route stations. 			
City of Eustis 2035 Comprehensive Plan (2015)	City of Eustis	City of Eustis	The comprehensive plan addresses land use, capital improvements, conservation, economic development, housing, infrastructure, intergovernmental coordination, public schools, recreation, and transportation, among others for the city.	<ul style="list-style-type: none"> The plan establishes minimum residential and non-residential (e.g., employment) densities in any urban area should be set at levels supportive of transit. Partner with LakeXpress to identify bus stop locations and infrastructure and facility design standards for incorporating transit operations. Work with LakeXpress to improve service frequency and span as a TDM strategy. Newly-developed neighborhoods should be connected via transit to avoid dependence on principal arterial systems.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> The plan encourages development patterns that support transit and pedestrians via a grid network in urban areas that facilitate linkages to civic buildings, squares, parks and other neighborhood uses. Land use patterns that support transit, and the establishment of mixed-use districts and parking reduction programs should help support the construction of a reliable grid network in urban areas that incorporate transit. The plan describes the City's intent to implement new policies within the land development regulations (LDR) that align with the aims of Complete Streets, in order to include travelers of all modes. It is identified that the City will work with the MPO and LakeXpress to implement the regional transit improvements identified in the 2035 LRTP, as well as to continue to provide demand-response transit for transportation disadvantaged (TD) populations. The City intends to promote multimodal and future planning efforts to increase the connectivity of alternative travel mode facilities. Additionally, the City plans to develop measures to monitor the LOS for each multimodal mode. 			
Eustis Downtown Master Plan (2008)	City of Eustis	City of Eustis	The citizen-driven master plan attempts to rebuild the pre-existing community by leveraging new market opportunities, natural amenities, good urban transportation, and appropriate land use and urban design principles.	<ul style="list-style-type: none"> Specific downtown areas are identified to improve mobility options, including transit circulation. Reimagining of the waterfront area along the Lake Walk includes plans for converting the Eustis Main Street Building to a future transit station.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> The plan identifies the following areas in need of improved mobility for pedestrian, bicycle, vehicular and transit circulation within the downtown area: <ul style="list-style-type: none"> Bates Avenue connection between Grove Street and Prescott Street McDonald Avenue connection between Grove Street and Eustis Street Two-way conversion of Magnolia Avenue and Eustis Street Pedestrian streetscape improvements for Magnolia Avenue and Eustis Street Traffic calming on Bay Street and Grove Street to provide safe pedestrian and bicycle accommodations Downtown way-finding system for pedestrian and vehicular circulation 			



Plan/Program/ Study Reviewed	Geographic Applicability	Responsible Agency	Plan/Program Overview	Recommendations / Objectives / Strategies
Clermont Comprehensive Plan (2009)	City of Clermont	City of Clermont	The comprehensive plan addresses land use, housing, transportation, sewer and sanitation, storm water, potable water, aquifer recharge, conservation, recreation and open space, capital improvements, schools, and intergovernmental coordination, among others for the city.	<ul style="list-style-type: none"> The City expresses interest in coordinating with LakeXpress to provide a circulator service within the City that connects to existing transit services. Park-and-rides and shelters are also being considered to improve the transit-supportive nature of the community.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> Land Development Regulations require new and infill development to prioritize connections with transit facilities. 			
City of Clermont Downtown & Waterfront Master Plan "Enhance, Connect, Grow" (2015)	City of Clermont	City of Clermont	A master plan that is intended to serve as a blueprint for the City's future during the next five, ten, and twenty-year horizons. As a result of community visioning sessions and working with city planning staff, a plan to guide the central downtown and waterfront district is provided.	<ul style="list-style-type: none"> The plan identifies critical downtown and waterfront areas south of Lake Minneola as prime locations for recreational and commercial improvements and reinvestment, which largely coincide with the Clermont CRA boundaries.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> As areas of the city develop further, more mobility needs will arise to connect downtown and waterfront areas of Clermont with the rest of the county. 			
City of Leesburg Comprehensive Plan (2012)	City of Leesburg	City of Leesburg	The growth management plan is designed to serve as the City's comprehensive plan to further coordination between Federal, State, and local governments by establishing policies and procedures for cooperation among these agencies for plan preparation and implementation. The growth management plan addresses land use, transportation, sanitary sewer, potable water, solid waste, drainage, aquifer recharge, conservation, recreation, aviation, and property rights, among others for the city.	<ul style="list-style-type: none"> The City is to coordinate with governmental agencies and jurisdictions to aid in meeting the goals, objectives, and policies of the City and those of other entities regarding transportation planning. Code requirements to enable transit access in all commercial or office zoning served by or to be served by transit within five years.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> The City of Leesburg incorporates coordination with LakeXpress to reach accessibility goals. Updates to transit service within Leesburg should be explicitly communicated to the City to enforce access requirements. 			
Groveland 2025 Comprehensive Plan (2020)	City of Groveland	City of Groveland	The comprehensive plan addresses land use, transportation, housing, public facilities, conservation, recreation and open space, intergovernmental coordination, capital improvements, public schools, public participation, and concurrency management, among others for the city.	<ul style="list-style-type: none"> In anticipation of future transit service, the City outlines a policy plan to adopt design standards for transit facilities consistent with Lake County, state and federal guidelines.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> Lake Xpress Route 50 West fixed-route system connects Groveland westward to Mascotte and eastward to Clermont, directly to a LYNX transfer in Winter Garden. 			



Plan/Program/ Study Reviewed	Geographic Applicability	Responsible Agency	Plan/Program Overview	Recommendations / Objectives / Strategies
Mount Dora 2045 Comprehensive Plan (2020)	City of Mount Dora	City of Mount Dora	The comprehensive plan addresses land use, housing, transportation mobility, infrastructure, conservation, recreation and open space, intergovernmental coordination, and capital improvements for the city.	<ul style="list-style-type: none"> The City notes that employment centers should be located on collector and arterial roadways with convenient access to LakeXpress transit services.
	<p>Key Considerations/Implications for TDP:</p> <ul style="list-style-type: none"> Identifies needs for development to occur in concert with the transit connectivity and the greater transportation network 			
Tavares Comprehensive Plan 2040 (2020)	City of Tavares	City of Tavares	The comprehensive plan addresses land use, housing, transportation, public facilities, conservation, intergovernmental coordination, capital improvements, and concurrency management, among others for the city.	<ul style="list-style-type: none"> To reduce emissions from automobile travel, the City seeks to support multimodal transportation strategies such as transit service within the Land Development Regulations (LDRs). The City identifies Reliable Mobility Options as an objective Public transit is among the top 3 priorities in the ranking of mobility prioritization. The City supports Complete Streets principles for roadway and development projects, establishing safe access to transit services.
	<p>Key Considerations/Implications for TDP:</p> <ul style="list-style-type: none"> The City is establishing strategies within the Land Development Regulations to support transit users The City is taking an active role in identifying new opportunities for transit service within its planning area. 			
Downtown Tavares Redevelopment Master Plan (2017)*	City of Tavares	City of Tavares	The Downtown Master plan centers on the CRA in Tavares and examines how the lakefront and adjacent historical areas can be revitalized into a regional leisure destination, as well as a regional multimodal hub.	<ul style="list-style-type: none"> The plan identifies improving transit service frequencies as a key first step in facilitating more compact development patterns in the downtown and waterfront areas. There is a need to study potential transit/commuter rail station opportunities to establish the City as a regional multimodal center. Main Street, Alfred Street, and Ruby Street are identified as key corridors for streetscape improvements and to receive transit service.
	<p>Key Considerations/Implications for TDP:</p> <ul style="list-style-type: none"> There is a desire by the City to have additional transit opportunities for areas of high activity such as downtown and waterfront Transit-Oriented Development is encouraged along the waterfront 			
Umatilla 2035 Comprehensive Plan (2014)	City of Umatilla	City of Umatilla	The comprehensive plan addresses land use, housing, transportation, public facilities, conservation, recreation and open space, capital improvements, airports, concurrency management, and intergovernmental coordination, among others for the city.	<ul style="list-style-type: none"> The City is committed to maintaining a high level of service for transit within the it so that its land use and other quality-of-life goals can be achieved. The SR 19 corridor was previously designated as a Multimodal Corridor by the MPO and the City supports this designation including that it may be willing to prioritize transit projects if they arise. Additionally, language in the LDRs has been added to ensure the accessibility of these corridors and new developments to transit services along SR 19 or nearby.
	<p>Key Considerations/Implications for TDP:</p> <ul style="list-style-type: none"> Umatilla is committed to integrating transit into its land use planning, promoting accessibility, and supporting multimodal transportation options to benefit the community's quality of life and sustainability goals. The City intends to coordinate future transit improvements with the Umatilla Municipal Airport and local railroad to increase connectivity of travel modes. 			



Plan/Program/ Study Reviewed	Geographic Applicability	Responsible Agency	Plan/Program Overview	Recommendations / Objectives / Strategies
2021 LakeXpress TDP Annual Progress Report (2021)	Lake County	LakeXpress	Annual progress update for policies, objectives, and projects outlined within the 2018 TDP.	<ul style="list-style-type: none"> • Improve On-Time Performance and route efficiency. • Increase Fixed Route one-way trips by 1% per year. • Promote transit and increase public awareness: Marketing transit as an attractive and cost-efficient travel option is essential for attracting new riders and retaining existing ones.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> • Major accomplishments include the completion of a real-time bus location information app via TIA project, improved bus stop locations including ten (10) shelters, and twenty-nine (29) ADA bus pads, improved sidewalk connections, and the completion of a Comprehensive Operations Analysis (COA). 			
2019 - 2028 LakeXpress TDP Major Update (2018)	Lake County	LakeXpress	Strategic assessment and planning document for LakeXpress transit service.	<ul style="list-style-type: none"> • The Transit Development Plan (TDP) was updated to reflect the ten-year period from 2019 to 2028. • Operational priorities include restructuring routes, adding service along key corridors (SR 50), adding weekend service on all routes, adding evening service on all routes, adding a circulator service between Clermont and Minneola, and improving frequency on all existing and new routes.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> • Consider changes in population, income levels, and employment patterns in the LakeXpress service area. • Assess the current services of the LakeXpress network and compare them to peer agencies and past performance. • Review previous public involvement activities and align the TDP with community desires and priorities. • Consider budget constraints and technological advancements to identify opportunities for innovation and efficiency. • Incorporate partner comprehensive and vision plans and ridership forecasts to prioritize service and capital improvements. • Develop a comprehensive plan that includes funded and unfunded service and capital improvements, considering cost and revenue assumptions. 			
Lake County TDSP (2023)	Lake County	Lake-Sumter MPO, Lake County CTC	The TDSP is an annually updated plan that addresses the provision and development of paratransit services in the county, revisits the cost/revenue allocation and rate structure, and the quality assurance component for riders.	<ul style="list-style-type: none"> • Progress is reported on several goals and objectives established in the previous major update. The rate structure is updated based on costs from the prior year, as well as highlights from the quarterly evaluation of the Community Transportation Coordinator (CTC).
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> • Provide an overview of the service area, including background info on the TD program, service area description, demographics, and major trip generators. • Forecast the area's transportation disadvantaged population. • Establish a service plan with service operation descriptions. 			
Lake County ADA Transition Plan (2012)	Lake County	Lake-Sumter MPO	The purpose of this effort is to evaluate the existing bus stop sites to ensure that they meet ADA guidelines and will appropriately support the operational efficiency and safety of the system and its use by patrons. The intent of the assessment field work for the bus stops is to identify any design and/or accessibility issues, especially as it relates to the ADA, which must be addressed at each bus stop.	<ul style="list-style-type: none"> • Move bus stops to the front of buildings. • Ensure appropriate crossing areas. • Avoid conflicts with driveways near boarding areas.
	Key Considerations/Implications for TDP: <ul style="list-style-type: none"> • Emphasis on bus stop infrastructure as it relates to boarding and alighting areas, connecting walkways, curb ramps, slopes and surface conditions, accessible clearances, protruding objects, shelters, and other amenities at bus stops, and bus stop signage. 			



Table 5-3: Regional Plans & Programs

Plan/Program/ Study Reviewed	Geographic Applicability	Responsible Agency	Plan/Program Overview	Recommendations / Strategies / Key Considerations for TDP
2045 Lake-Sumter LRTP (2021)	Lake and Sumter Counties	Lake-Sumter MPO	A major update to the LRTP that includes the county's 20-year vision of transportation projects for the community.	<ul style="list-style-type: none"> • The plan emphasizes a multimodal outcome that includes roadways, transit, non-motorized transportation, and connections between these modes, as well as management, operation, and preservation of the existing system. As part of this, the MPO intends to continue promoting the goal of migrating away from roadway capacity improvements and encouraging migration toward transit improvements along arterial corridors. • The MPO supports the LakeXpress vision of maturing from a local to a small urban area transit provider. It states that it will facilitate regional coordination where helpful, as requested in the prior TDP. • A regional transit study was completed in October 2018 to establish a regional transit vision and create transit priorities across ten (10) counties throughout Central Florida. This effort identified short-term, high-priority transit improvements. • Recommended improvements were identified to include additional cross-jurisdictional service (e.g., SunTran and LYNX) along with the implementation of an intermodal facility near the Turnpike / SR 50. • Multiple goals were set to establish needed transit-related improvements such as promoting safety and security via investing in Transit security; improving mobility by maintaining or enhancing Transit services; and prioritizing system preservation via Transit asset maintenance.
MetroPlan Orlando 2045 Metropolitan Transportation Plan (MTP) (2022)	Orange County	MetroPlan Orlando	A major update to the LRTP that includes the county's 25-year vision of transportation projects for the community.	<ul style="list-style-type: none"> • Included in the Transit Element, LYNX Vision 2030 (completed in 2011) examined 22 corridors to determine where transit improvements and additions can be made, the US-192 corridor from Lake County to St. Cloud was included. This segment was identified within a list of high-emphasis corridors to provide greater connectivity to activity centers, residences, and employment centers. • A Commuter Express service was identified as a Near Term Transit Need, connecting Lake County to downtown Orlando; implementation was suggested to be done using private contractors.
East Central Florida 2060 Strategic Policy Plan (2014)	Brevard, Lake, Orange, Osceola, Seminole, Sumter, and Volusia Counties	East Central Florida Regional Planning Council	The plan identifies a set of goals, objectives, and policies based on the trends and aspirations of the region. The plan cites various community case studies as examples for best practices in achieving the established goals.	<ul style="list-style-type: none"> • Supporting TOD areas to reduce roadway congestion and delays is a priority to improve the region's economic competitiveness. • Additionally, the need to concentrate transit service near major activity centers and locations where there is a high number of affordable housing units, and identify and designate priority transit corridors are outlined in the community design element of the policy plan. • The transportation element identifies transit as playing a key role in reducing VMT and encourages minimum development densities along with identifying transit corridors in a map to help organize planning efforts considering future transit service. • In the public engagement activities conducted for the plan, participants more often identified corridors that should receive more transit service and not new or expanded roadways. By 2050, residents expressed interest in pursuing rail transit (i.e., commuter rail, light rail, and streetcar).



Plan/Program/ Study Reviewed	Geographic Applicability	Responsible Agency	Plan/Program Overview	Recommendations / Strategies / Key Considerations for TDP
SunTran TDP Major Update (2017)	Marion County	SunTran	A major update to the TDP that serves as the guide for the bus network centered on the City of Ocala. The plan explores expanding the services provided within the county to include Flex-style services, downtown circulators, and regional express services, the latter of which recommends coordination occur with LakeXpress to determine potential service connections and alignments.	<ul style="list-style-type: none"> • The TDP recommended a new express service (2-hour headways from 8:00 AM to 8:00 PM, Monday through Friday) be implemented to connect The Villages, Lake County, and Belleview, with Downtown Ocala via US 441. • The TDP notes that current and future land use densities are increasing in the southern part of the county adjacent to Lake County where The Villages community is located. Additionally, the TDP recognizes that Lake County is the second most travelled to county outside of Marion County for commuters, after Orange County. However, a smaller proportion of Lake County's population commutes to Marion County. • Public input surveys did not prioritize Lake County needing transit service, except for residents of The Villages, already close to the county border.
Lake-Sumter MPO Transportation Improvement Program (2023)	Lake and Sumter Counties	Lake-Sumter MPO	An annual update to the county's Transportation Improvement Program that identifies funding allocations for various transportation, transit, pedestrian, and bicycle projects in the MPO area that are in multiple phases of completion.	<ul style="list-style-type: none"> • There are funding allocations for continued support of fixed-route and paratransit operating costs, and capital purchases for buses as part of the scheduled bus replacement program. • Lake-Sumter adopted its List of Priority Projects (LOPP) (June 2022) providing a list of priorities approved by the LSMPO Governing Board; this document helps to develop the TIP. Although projects are unfunded on the LOPP, many of the roadways that are soon reaching the construction phases or are still in the PD&E phase are corridors currently used by fixed-route transit services. It is therefore worth revisiting this list once potential service alternatives have been identified as part of the TDP to determine where opportunities to better accommodate transit exist. • Eight transit and transportation disadvantage projects are listed to be funded from FY 2024 to FY 2028. These include capital funding for fixed route, operating for fixed route, and operation/administrative assistance.



Plan/Program/ Study Reviewed	Geographic Applicability	Responsible Agency	Plan/Program Overview	Recommendations / Strategies / Key Considerations for TDP
Lake-Sumter MPO Unified Planning and Work Program (2023)	Lake and Sumter Counties	Lake-Sumter MPO	The plan has been prepared to define the tasks and anticipated funding requirements as part of the two-year work program for the MPO. This document describes activities for all public officials and agencies that contribute resources to the transportation planning process. The plan also describes planning tasks and an estimated budget for each.	<ul style="list-style-type: none"> The Work Program is broken down into six (6) tasks including Administration and Management; Short-Range Planning; Long-Range Planning (e.g., LRTP, CMP, Socioeconomic Data Forecast & Travel Demand, and Subarea Planning); Special Studies (e.g. Multimodal and Vision Zero Plan); Public Outreach Participation; MPO Regional Activities
Lake-Sumter MPO List of Unfunded Priority Projects (2022)	Lake and Sumter Counties	Lake-Sumter MPO	The LOPP represents those projects that have not yet been programmed but are considered high priorities by the MPO.	<ul style="list-style-type: none"> The list of priorities includes various road widening, realignment, complete streets, and new corridor projects. Transit Project Priorities list includes eight transit projects. These include the addition of weekend service routes, evening service routes, a circulator between Clermont and Minneola, and an additional connection from Four Corners to Leesburg. A Complete Streets project is currently in the Study phase, ranking #6 in the top 20 priority projects from CR-466A to CR 44A.



Table 5-4: Federal and State Plans & Programs

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update	Type of Plan	Responsible Agency	Plan/Program Overview	Key Considerations/Implications for TDP
Fixing America's Surface Transportation (FAST) Act	USA	2015	Federal Act	USDOT	Enacts five years of funding for the nation's surface transportation infrastructure, including transit and rail transportation networks. Provides long-term certainty and more flexibility for states and local governments, streamlines project approval processes, and maintains strong commitment to safety.	<ul style="list-style-type: none"> Increases dedicated bus funding by 89% over the life of bill. Provides stable formula funding and competitive grant program to address bus and bus facility needs. Reforms public transportation procurement to make federal investment more cost-effective and competitive. Consolidates and refocuses transit research activities to increase efficiency and accountability. Establishes pilot program for communities to expand transit through public-private partnerships. Provides flexibility for recipients to use federal funds to meet their state of good repair needs. Provides for coordination of public transportation services with other federally assisted transportation services to aid in the mobility of older adults and individuals with disabilities.



Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update	Type of Plan	Responsible Agency	Plan/Program Overview	Key Considerations/Implications for TDP
FTP: Horizon 2060	Florida	2015	State	FDOT	Requires, as part of Florida Statutes, the pursuit to make Florida's economy more competitive and communities more livable. Looking at the 50-year transportation planning horizon calls for fundamental change in how and where state investments in transportation are made.	<ul style="list-style-type: none"> • Supports the development of state, regional, and local transit services through a series of related goals and objectives, emphasizing new and innovative approaches by all modes to meet needs today and in the future.
State of Florida Transportation Disadvantaged 5-Year/20-Year Plan	Florida	2007	State	FCTD	Accomplish cost-effective, efficient, unduplicated, and cohesive TD services within its respective service area.	<ul style="list-style-type: none"> • Develop and field-test model community transportation system for TD persons; create strategy for Florida CTD to support the development of a universal transportation system.



SOCIOECONOMIC TRENDS

This section provides a brief overview of socioeconomic trends for the LakeXpress service area, focusing on the strengths and challenges associated with those trends. A comprehensive population profile for the LakeXpress service area is provided in Section 2.

Strengths

Identifying areas in the LakeXpress service area that currently rely on and would benefit most from public transportation services is essential. Areas with a high concentration of transit-dependent users generally include populations who cannot legally operate a motor vehicle, persons who cannot afford or own their own vehicle, and persons who cannot transport themselves due to a disability. The following are vital findings for transit-dependent populations in the service area.

- Based on 2021 Census ACS data, Lake County has a higher proportion of persons aged 65 and over (26 percent) compared to Florida (20 percent). The proportion of persons in this age bracket is anticipated to increase to approximately 30% by 2050. Currently, individuals aged 65 and over are primarily concentrated around the Fruitland Park and Leesburg communities, located near “The Villages,” a growing community primarily concentrated within Sumter County to the west.
- According to the 2017-2021 ACS estimates, persons aged 55 to 59 are most likely to take public transit to work (54%).
- The highest concentration of individuals below the poverty level is in Fruitland Park and Leesburg, while zero-vehicle households are in Clermont, Eustis, and Fruitland Park.

There are nodes within the LakeXpress service area with concentrations of higher population density and increasing growth trends. These areas also represent populations with a higher propensity for transit use that should influence short and mid-term capital investment decisions.

- The areas with the highest levels of population density include the municipalities of Eustis, Clermont, and Fruitland Park and their surrounding areas. The same areas are estimated to experience increases in population density from 2025 to 2035.
- The southeast corner of Lake County will be home to the Wellness Way Strategic Corridor, which is a master-planned community focused on major sporting and training opportunities. This area of the County is projected to have growth between 2025 and 2035. However, following conversations with Lake County staff, the Wellness Way Strategic Corridor area is anticipated to have more growth than the travel demand forecasting model assumes. Updates to that forecast model are underway to better understand the impacts of the growth.
- The population in Fruitland Park and Groveland areas has more than doubled over the past 10 to 12 years, and the entire Lake County population has increased by 178 percent since 2000.

Challenges

The steadily developing nature of the County, in addition to the overall low population and dwelling unit density, will burden County-wide services.

- Lake County has low population and dwelling unit densities in general. The average household size for Lake County decreased slightly from 2.49 persons in 2016 to 2.48 persons in 2021.



- Lake County's population is estimated to increase with an average annual growth of 2.05 percent in the next 8-years (2030) and an average annual growth of 1.34 percent by 2050. The population of Lake County has been historically fast-growing and is projected to continue at a fast rate in the future.

As mentioned above, transit-dependent populations or those that have a high propensity for transit use are a strength to support transit use across the county. However, some transit-dependent demographics in Lake County are low compared to statewide averages. Trends like this would lead to LakeXpress' reliance on choice riders to strengthen ridership.

- The percentage of zero-vehicle households within Lake County has decreased by 3.8 percent since 2000, representing 1.6 percent of the population. Most households have two or more vehicles, accounting for 79 percent of the population. As Lake County grows, it is essential to consider improvements in LakeXpress services to serve transit-dependent populations and provide alternatives to automobile travel.
- The county's most significant percentage of households have an annual income of \$50,000 or more, representing 59 percent of the population in Lake County. Conversely, 27 percent of households made less than \$35,000 annually, including the percentage of low-income households.

REGIONAL TRAVEL TRENDS AND BEHAVIOR

It is essential to understand the travel behaviors of users and the conditions of the transportation system to assess the impact that public transportation services can have on the local and regional economy and associated travel patterns. This section summarizes the strengths and challenges for LakeXpress regarding regional travel patterns within the LakeXpress service area. A detailed description of travel trends, including employment characteristics and origin-destination analyses, is provided in Section 2.

Strengths

Areas of employment and regional attractors exist in nodes of denser development along major roadways in the LakeXpress service area. For shorter trips, where users start and end within the same or neighboring areas, the existing LakeXpress service options provide coverage. Still, the projected increase in employment and growth in the county presents an opportunity for enhancing service.

- The areas within the county that exhibit the highest employment densities include the municipalities of Eustis and Leesburg, which are served by Routes 1, 1A, 2, 3, and 4, and Clermont, which is served by Route 50. The area along US 441 is projected to have the highest increase in employment between 2025 and 2035, presenting an opportunity to increase service where the Route 1 route currently operates every 60 minutes.
- Approximately 36 percent of commutes in Lake County are less than 20 minutes, with most commute times between 10 to 19 minutes and a mean commute time of approximately 30 minutes. This indicates that commuters must travel a moderate distance between work and home, which could be conducive to being completed as a transit trip.

Challenges

Not unlike other regions in Florida, the LakeXpress service area serves a population that favors personal vehicles significantly over other modes of travel. This market of choice riders, the vast size of the county,



and the demand for accessing locations outside of Lake County present challenges for LakeXpress to provide adequate and appropriate service levels throughout the service area.

- Driving alone is the primary mode for commuting to work, totaling 78.4 percent of the population. In comparison, only 0.2 percent of commuters in the county use public transportation. This is important to note when considering the potential market of choice riders for transit.
- Approximately 60 percent of Lake County residents also work there, while 40 percent commute to another county. A similar travel pattern exists for non-work trips. The primary origin and destinations for non-work trips are concentrated in the three population centers of Clermont, Eustis, and Fruitland Park. Clermont and Eustis are home to two large trip attractors – Lake-Sumter State College and Lake Technical College.
- As shown in Figures 2-13 and 2-14, the number of work trips originating in Lake County far exceeds the number of work trips ending in Lake County. This analysis further reinforces the idea that areas in Lake County serve as bedroom communities for workers in Orange County and other surrounding areas.
- LakeXpress does not provide service between Leesburg and Clermont, leaving a service gap between regional hubs.
- These competing travel patterns represent a demand for local and regional trips within the service area and provide regional connections to neighboring counties.

LAND USE AND URBAN DESIGN

Land use, urban design, and transportation are interconnected and influence each other. One example of interconnection is an area with mixed-use development – where housing, commercial/office, and retail may be near each other and encourage transit use, as well as walking and biking. This relationship benefits transit because destinations near transit facilitate the service's efficiency and effectiveness. Conversely, sprawled development, where destinations are further apart, makes transit usage inefficient.

This section summarizes the strengths and challenges for LakeXpress regarding land use and urban design within the LakeXpress service area. Section 2 and the plans review subsection of Section 5 provide additional land use and urban design context.

Strengths

- The county and municipalities' comprehensive plans generally support maintaining and creating transit-supportive land uses and corridors to support LakeXpress' fixed route services. Land use patterns that support transit and the establishment of mixed-use districts help support a reliable grid network in urban areas that incorporate transit.
- The Eustis Downtown Master Plan calls out the re-imagining of the waterfront area along the Lake Walk to include plans for converting the Eustis Main Street Building into a future transit station.
- Significant commercial corridor overlays are designated in the county, including US 27, US 441, and SR 19. The corridor overlays exist primarily where commercial retail and office development exists and where commercial development may occur without meeting Commercial Location Criteria as defined in the Future Land Use element.



- The Lake County Economic Development Department has identified four strategic corridor areas for economic development. Three areas – Wellness Way, Wolf Branch Innovation District, and Minneola Interchange – involve mixed-use development. All areas are near major roadways with regional connections, supporting both transit-oriented design and land use.

Challenges

- Lake County is primarily rural with low residential density and conservation and park land in the southwest and northeast corners of the county. Low density across a large area will continue to be challenging to serve effectively and efficiently with traditional public transportation services. Focus should be given to productive routes serving key travel corridors and connecting major trip generators.
- Several major LakeXpress routes bisect the county, effectively serving as inter-city services connecting municipalities within the County. Today, many of those “inter-city” routes operate on low-density commercial and residential development roadways. This is a significant challenge given the county's size and largely rural land uses. Dispersed land uses equate to the desire for public transportation, which directly correlates to less productive services but often is much needed for transportation disadvantaged in the community.

ORGANIZATIONAL ISSUES

The Lake County Office of Transit Services consists of six administrative staff housed at the transit agency's administrative offices in Fruitland Park. The Lake County Board of County Commissioners contracts with a private, for-profit corporation to deliver service and conduct fleet maintenance for fixed-route and paratransit services. Day-to-day oversight of the contracted operator is the responsibility of the administrative staff working in the Office of Transit Services.

Strengths

- Contracting operations have ensured that experienced and qualified staff are working to deliver public transportation services. Many agencies employ a similar business model, allowing the agency to defer hiring, training, drug testing, and other workforce-related issues to the contractor.
- Contracting of operations functions has allowed the agency to capitalize what would otherwise be considered operating expenses. In this manner, the agency can leverage FTA 5307 capital funding to pay for eligible Capital Cost of Contracting expenses instead of having to use other operating revenue sources (i.e., the County general fund)

Challenges

- Contract pricing continues to escalate nationwide to remain competitive with prevailing wages and hire and retain qualified staff. This is a national trend reflected in ongoing operator “shortages.” In effect, sustained driver shortages create unhealthy work environments over time. They could eventually lead to service reliability issues or reductions.
- Office of Transit Services administrative staff must perform and comply with the exact requirements that large agencies perform but with less staff. This is most impactful regarding



redundancy in day-to-day activities and cyclical actions (i.e., data management/reporting and grants administration), where the absence of one staff person's knowledge in one essential administrative function creates a void in the institutional knowledge required to complete work efficiently. Furthermore, in a group of six, one absence has a multiplicative effect on the remaining staff's work level.

TECHNOLOGY

LakeXpress employs a variety of technology offerings to improve passenger information and enhance the passenger experience. Over the last several years, the agency has used the RouteShout mobile app and website interface to facilitate trip planning and communicate bus arrival and departure information to users of the fixed-route system. LakeXpress is also exploring multiple new technologies for deployment, including mobile ticketing, upgrades to the CAD/AVL system, and potentially adding wifi on board the buses.

Strengths

- LakeXpress consists of experienced staff familiar with technology offerings, their functionality, and, most importantly, their usefulness to system riders. This is significant in that the team can focus on those offerings that provide the highest return on investment to users and are not bleeding edge, or cutting edge, technology offerings that are unproven or others have not tested.
- The agency has developed a plan for implementing mobile ticketing, wifi, and on-demand microtransit service that includes funding and a manageable oversight plan using existing staffing levels. This is critical as any technology deployments will need to be delivered with an expectation of low maintenance and responsive vendors to minimize the workload of existing staff.

Challenges

- Administrative staff is burdened by the requirements and duties of their specific role within the agency, leaving little time to manage and maintain technology applications and hardware. With each new implementation comes new administrative and vendor management functions that require technical expertise better suited for an IT staff person. This is true with most transit agencies where the success of new technology applications sometimes falls on the availability of staff to monitor, troubleshoot, and address problems immediately as they arise.
- Updates to the agency's General Transit Feed Specification (GTFS) should be updated and maintained on a regular schedule. This is typically the first source of transit schedule and trip planning information for bus passengers, and the lack of an accurate GTFS feed in online maps and applications reflects the agency's expanding responsibilities without adding new staff.



- Leveraging support from other agency departments will be critical in implementing and adopting new technologies. That support must include County Communications, IT, and Procurement teams. Internally developing sound implementation and financial plans will help create an environment that is credible and well-supported by department staff throughout the County.



Section 6 : Goals and Objectives

Goals and objectives are an integral part of the LakeXpress TDP, as they guide the development of specific steps or actions to achieve the community's vision. LakeXpress TDP goals and objectives are presented in this section. They are supported and based on the review and assessment of existing conditions, feedback received during the public involvement process, and the findings outlined in the Situation Appraisal.

LakeXpress Vision:

Providing dedicated public transportation leadership for enhanced mobility and sustained economic vitality, thereby becoming a provider of choice for our customers and improving the quality of life of the community, region, and state.

LakeXpress Mission:

To provide a safe, professional, efficient, cost-effective, and accessible public transportation system that will meet the financially feasible mobility and accessibility needs of residents and visitors traveling in Lake County.

DEFINITIONS

Definitions are provided to structure goals, objectives, and policies in a logical and consistent format where policies, or actions, address pertinent objectives and where objectives represent attainable milestones for plan goals. Furthermore, Table 6-1 provides additional elements to support tracking and monitoring progress on all TDP policies and objectives. Those elements come in the form of additional table fields, and this method for monitoring achievement will be revisited by staff in each TDP annual update.

- **Goal:** A long-term end toward which programs or activities are ultimately directed.
- **Objective:** A specific, measurable, intermediate end that is achievable and allows measurement of progress toward a goal.
- **Policy:** The course of action or way in which programs and activities are conducted to achieve an identified objective.



Table 6-1: Goals, Objectives, Policies

Objective/ Policy	Description	Implemented (Yes/No/ Ongoing)	Assessment
Goal 1: Local and Regional Transit Accessibility and Mobility			
Objective 1.1: Maintain public transportation service coverage for areas of Lake County with high residential and commercial densities.			
Policies for Objective 1.1			
Policy 1.1.1	Continue to operate and maintain existing service levels.		
Policy 1.1.2	Coordinate with Lake County and local municipality land use planning efforts.		
Policy 1.1.3	Maintain countywide on-demand service coverage for qualified individuals consistent with the local TDSP.		
Policy 1.1.4	Implement new service innovations (i.e., microtransit, on-demand, and express services) in new areas.		
Policy 1.1.5	Improve access to local and regional centers, including new regional commercial and employment centers.		
Policy 1.1.6	Continue coordination of transit services in partnership with LYNX.		
Policy 1.1.7	Expand partnerships with neighboring transit providers -- Citrus Connection, Sumter County Transit, Marion Transit Services, SunTran, Votran.		
Policy 1.1.8	Participate and partner with the Lake-Sumter Metropolitan Planning Organization (MPO), the East Central Florida Regional Planning Council (ECFRPC), and the Florida Department of Transportation (FDOT) to expand local and regional transit options.		
Policy 1.1.9	Maintain/Develop park-and-ride lots and remote transfer centers as needed to support regional transportation efforts and coordinate with FDOT and other regional partners.		
Policy 1.1.10	Partner with the FDOT D5 Commuter Services Program to promote carpooling, ridesharing, and park-and-ride programs to residents, employers, and employees.		
Objective 1.2 Install and/or retrofit accessible bus stops at no less than 20% of all non-accessible bus stops on each route annually.			
Objective 1.3 Increase the miles of accessible sidewalks and bicycle parking infrastructure adjacent to transit stops and/or centers and major activity centers.			
Policies for Objectives 1.2 and 1.3			
Policy 1.3.1	Assess/inventory accessibility of facilities, including bus stops, sidewalks, etc., within ¼-mile of transit stops and activity centers.		
Policy 1.3.2	Ensure that all transit vehicles and transit facilities meet the requirements of the Americans with Disabilities Act (ADA).		



Objective/ Policy	Description	Implemented (Yes/No/ Ongoing)	Assessment
Policy 1.3.3	Maintain and update inventory of stops and bus stop infrastructure.		
Policy 1.3.4	Using an up-to-date stop inventory, prioritize bus stop and bus stop amenity improvements, including ADA enhancements.		
Policy 1.3.5	Coordinate with FDOT, MPO, and County transportation planning team to integrate accessible paths, including safe pedestrian crossings, into future roadway improvement projects.		
Goal 2: Regional and Local Community Economic Development			
Objective 2.1: Increase the number of regional, County, and local economic development initiatives served within ½-mile of a transit corridor or 1-mile of a transit center/transfer location.			
Policy 2.1.1	Improve access to local and regional centers, including new regional commercial and employment centers.		
Policy 2.1.2	Support Transit-Supportive Land Use, Zoning, and Development.		
Policy 2.1.3	Maintain ongoing public outreach programs to educate citizens and visitors about the availability, characteristics, and benefits of existing and future transit services.		
Policy 2.1.4	Establish bulk fare purchase options and market to local area employers and non-profit organizations.		
Goal 3: Safety and Security			
Objective 3.1: Maintain no less than 10,000 miles between road calls for all services.			
Objective 3.2: Maintain an average age of 6 years for all rolling stock.			
Objective 3.3: Reduce the number of preventable crashes per 100,000 miles by 5% while keeping statistics on crashes annually.			
Objective 3.4: No more than one driver assault incident per 100,000 miles for all services.			
Polices for Objectives 3.1 through 3.4			
Policy 3.4.1	Update and implement Transit Asset Management (TAM) Plan.		
Policy 3.4.2	Maintain an implement the fleet management plan.		
Policy 3.4.3	Continue operator training programs and refresher training to enhance system safety and customer service.		
Goal 4: Enhanced System Performance			
Objective 4.1: Increase Ridership by 10% over the next five years.			
Objective 4.2: Reduce the operating expense per fixed route passenger trip annually by 1% for the next five years.			
Objective 4.3: Increase the farebox recovery ratio to 10% by 2028.			



Objective/ Policy	Description	Implemented (Yes/No/ Ongoing)	Assessment
Policies for Objectives 4.1 through 4.3			
Policy 4.3.1	Continue to operate and maintain existing service levels.		
Policy 4.3.2	Evaluate and modify fixed-route bus service that falls below 75% of the system-wide average for passenger trips per revenue hour.		
Policy 4.3.3	Conduct a fare policy analysis by 2024.		
Objective 4.4: Initiate the development of new transit facilities, including a new admin/ops facility and a new satellite operations facility by 2028.			
Policies for Objective 4.4			
Policy 4.4.1	Conduct a zero-emission fleet transition plan.		
Policy 4.4.2	Assess system growth and facility space requirements for a new admin/ops facility.		
Policy 4.4.3	Assess system growth and facility space requirements for a new satellite operations facility.		
Objective 4.5: Implement transit technologies that enhance service delivery and customer satisfaction.			
Policies for Objective 4.5			
Policy 4.5.1	Develop a procedure for maintaining and updating the GTFS.		
Policy 4.5.2	Procure and implement new fixed-route scheduling software.		
Policy 4.5.3	Upgrade real-time passenger information and trip planning tools.		
Policy 4.5.4	Complete the procurement and implementation of a mobile ticketing system.		
Goal 5: Environmental Quality			
Objective 5.1: Reduce Environmental Impacts.			
Policies for Objective 5.1			
Policy 5.1.1	Evaluate the impact of new or proposed services on natural, social, and historic resources, thereby ensuring a reduced environmental impact on transit corridors.		
Policy 5.1.2	Conduct a zero-emission fleet transition plan.		
Policy 5.1.3	Coordinate with LYNX and FDOT District 5 Commuter Services Program to promote carpooling/vanpooling opportunities for commuters with the same destination, bus stop, or park-and-ride facility for local commuter campaigns, initiatives, and services.		
Policy 5.1.4	Support Transit-Supportive Land Use, Zoning, and Development.		



Section 7 : Transit Market and Demand Analysis

This section assesses both Transit Demand and Mobility Needs within Lake County. Utilizing baseline conditions, public outreach results, and existing plan reviews discussed in previous sections, this transit demand assessment provides a foundation for identifying public transportation needs for Lake County over the 10-year TDP planning horizon.

Overall transit demand and mobility needs for LakeXpress customers were evaluated using the following analyses:

- **Transit Market Analysis:** The transit market assessment was performed for this TDP Major Update using various demographic and socioeconomic analysis techniques that were presented in Section 2 of the TDP. Those analyses include understanding population density, employment density, and transit propensity.
- **Ridership Demand Analysis:** Ridership demand forecasts were developed utilizing the FDOT-approved transit demand forecasting tool, Transit Boardings Estimation and Simulation Tool (TBEST).

TRANSIT MARKET ANALYSIS

The transit market analysis performed for this TDP Major Update consists of assessing various demographic and socioeconomic techniques presented in Section 2 of the TDP. That information provides a basis for evaluating transit demand and mobility needs for LakeXpress customers and residents. Specifically, a transit propensity index utilizing demographic information was conducted to identify areas within Lake County that have residents who are typically considered in higher need of public transportation services. A description of these market analysis tools, along with supporting figures are presented to show how well LakeXpress service meets the needs of these travel markets as well as where gaps exist in the network.

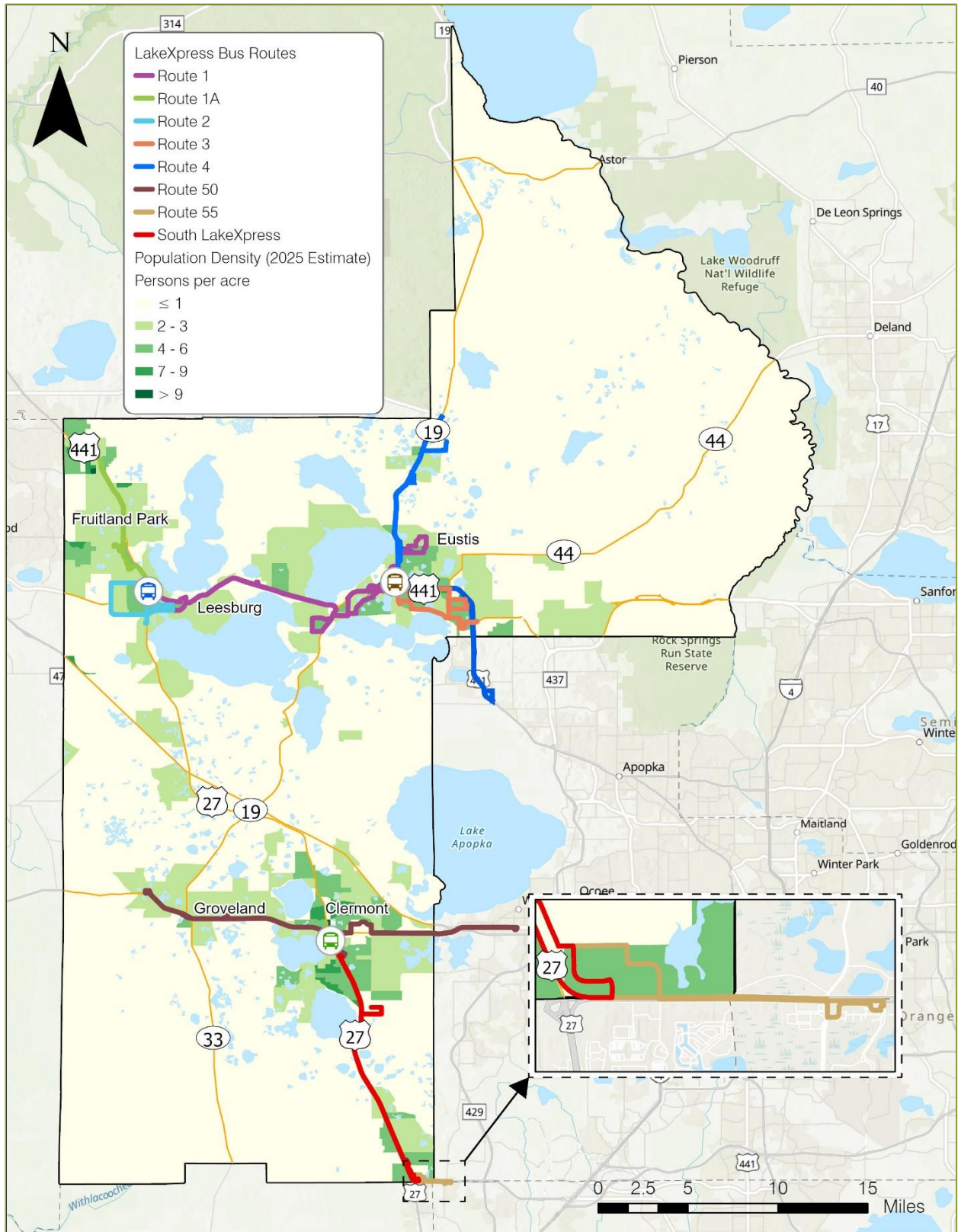
Population and Employment

Public transportation is most productive when it connects residents to their work, education, and shopping needs. Additionally, the transit system should aim to limit the distance residents need to walk to their bus stop to between a quarter-mile to half-mile walk (i.e., a 10-minute walk). Because of this, a service area's population and employment density can provide a good basis for understanding where transit should serve. The Transit Cooperative Research Program (TCRP) Transit Capacity and Quality of Service Manual, 2nd Edition, states that densities of six persons per acre and/or four jobs per acre is more likely to be able to support hourly fixed-route transit service.

Map 7-1 and Map 7-2 show the population density of Lake County by TAZ for years 2025 and 2035, respectively. Map 7-3 and Map 7-4 shows employment density for 2025 and 2035, respectively. All maps illustrate those densities against the LakeXpress fixed-route system. As shown, LakeXpress already operates in areas of higher population and employment density in the County, such as Clermont, Eustis, Leesburg, Mt. Dora, Fruitland Park, and the Four Corners region. Some gaps exist along US 27 south of Leesburg and SR 19 north of Clermont. This suggests that while transit services operate in higher demand areas compared to the rest of the County, focus should be placed on service enhancements along the existing network, such as higher frequencies, later service, and weekend service.

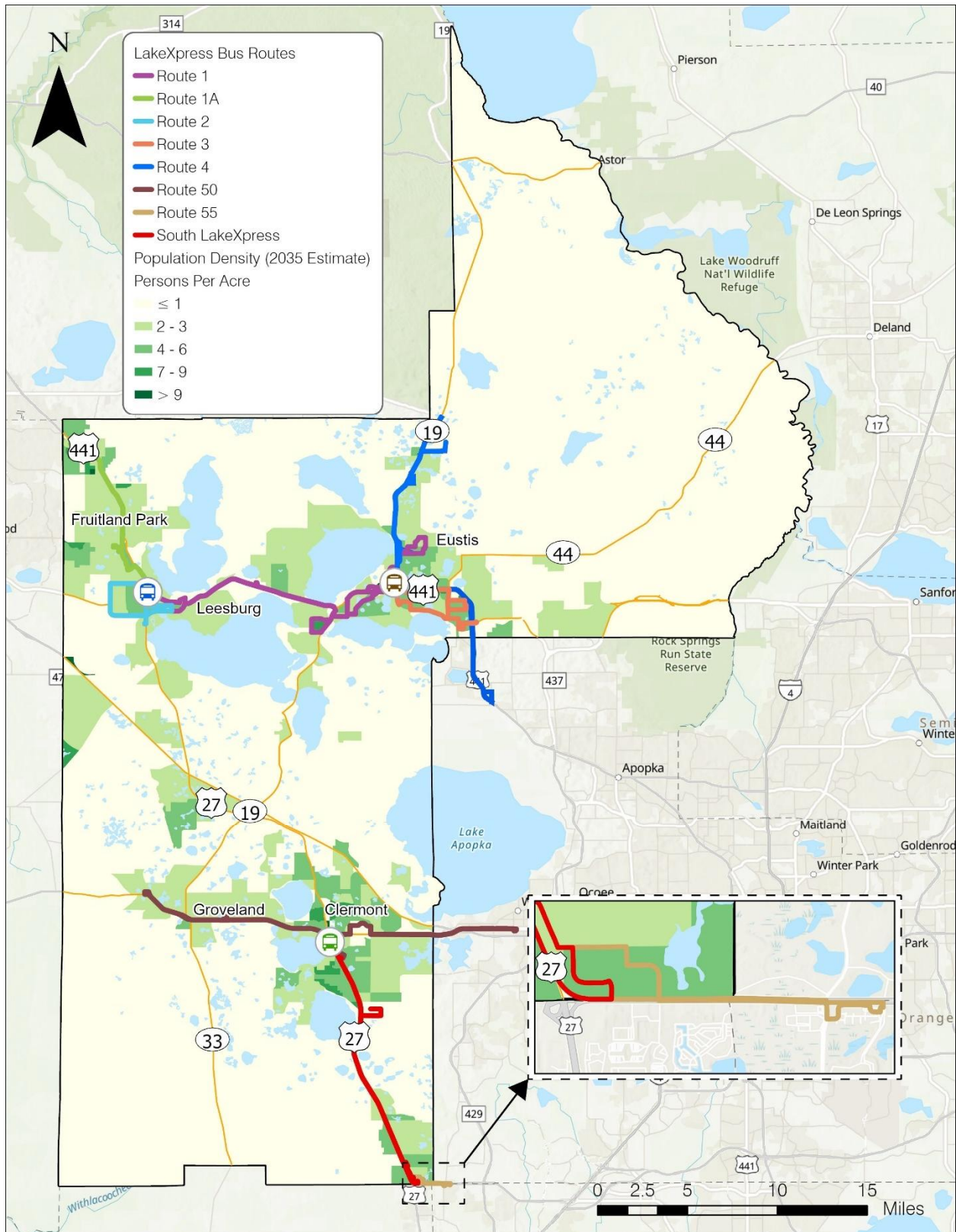


Map 7-1: Population Density (2025) with LakeXpress Routes – Lake County TAZs



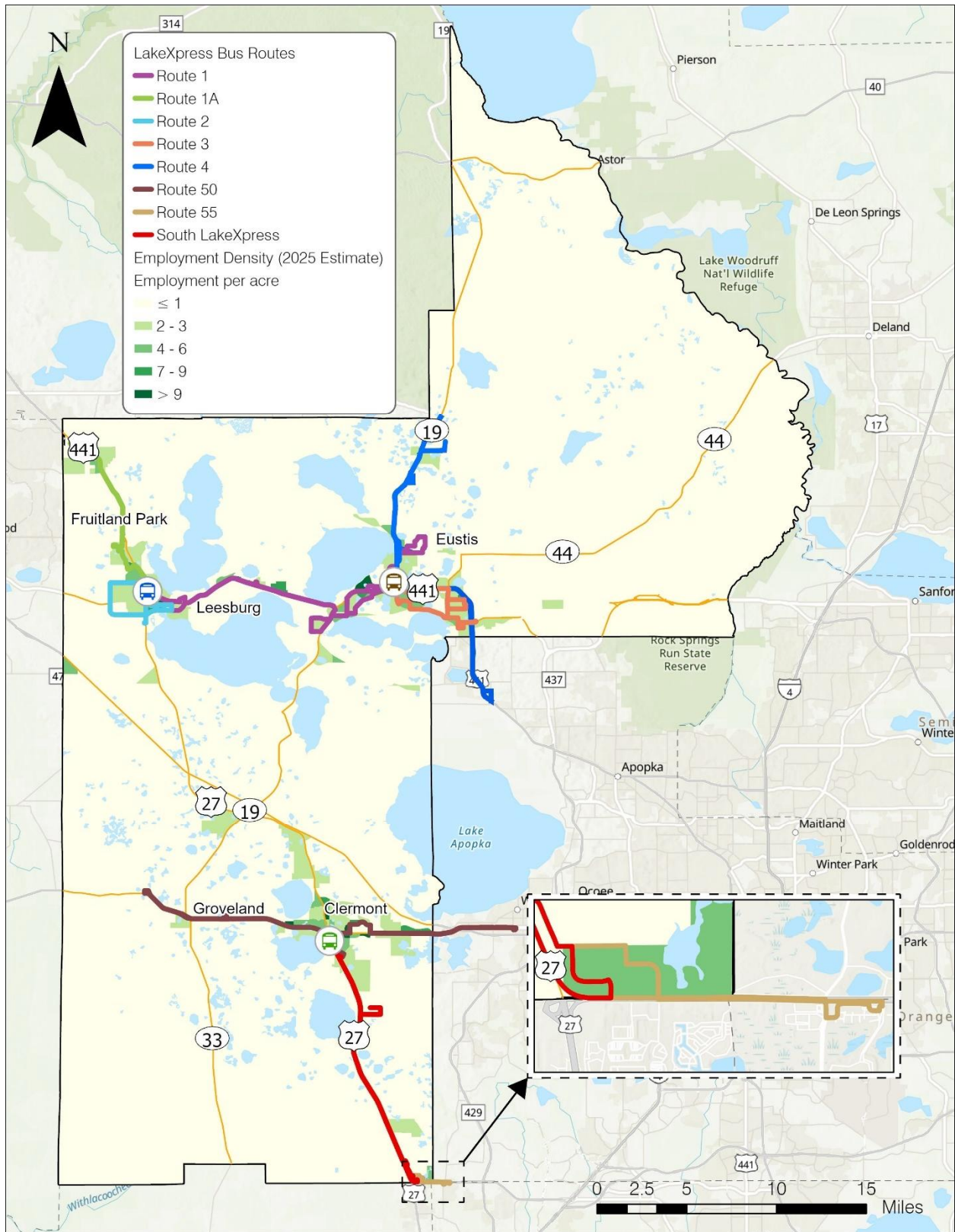


Map 7-2: Population Density (2035) with LakeXpress Routes – Lake County TAZs



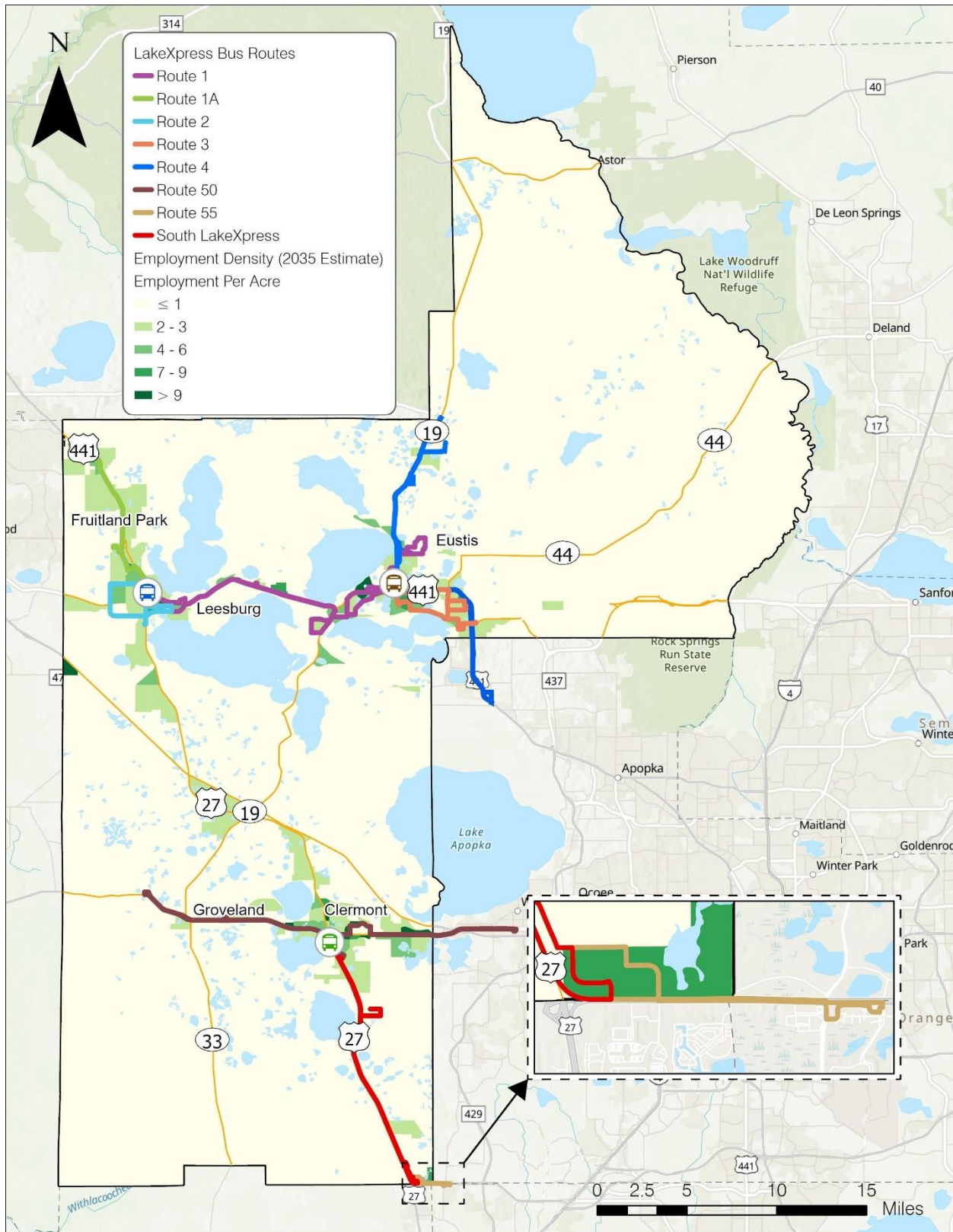


Map 7-3: Employment Density (2025) with LakeXpress Routes – Lake County TAZs





Map 7-4: Employment Density (2035) with LakeXpress Routes – Lake County TAZs





Transit Propensity

A transit propensity index was developed to identify areas of Lake County that contain concentrations of persons more likely to depend on public transit for their transportation needs. Demographic characteristics that can be used to identify higher-propensity transit users include, but are not limited to, age, poverty status, and vehicle ownership. These variables point to transportation-disadvantaged (TD) populations who may not have access to a personal vehicle or cannot drive.

This analysis utilized three demographic characteristics to understand where transit-dependent populations reside in Lake County. Table 7-1 identifies these three demographic characteristics, descriptions, and communities within Lake County with higher concentrations of these populations. As individuals age, their ability to drive may diminish, making them more reliant on others or public transit for their transportation needs. For low-income individuals, the costs associated with transportation and personal automobile ownership can be highly burdensome, leading some to forgo owning an automobile at all. Public transportation may be a more cost-effective solution for those with limited or restricted incomes.

Table 7-1: Transit Propensity Variables and Descriptors

Transit Propensity Demographic Characteristics (Equally Weighted)	Unit Description	Countywide Percentage (2021)	Top Three Communities with Highest Concentration
Elderly Population	Persons 65 and Over by Census Block Group	26.3%	Clermont Eustis Leesburg
Low-Income Population	Persons Below the Federal Poverty Line by Census Block Group	10.7%	Astora Eustis Leesburg
Zero-Vehicle Households	Households with Zero Vehicles by Census Block Group	1.6%	Clermont Eustis Leesburg

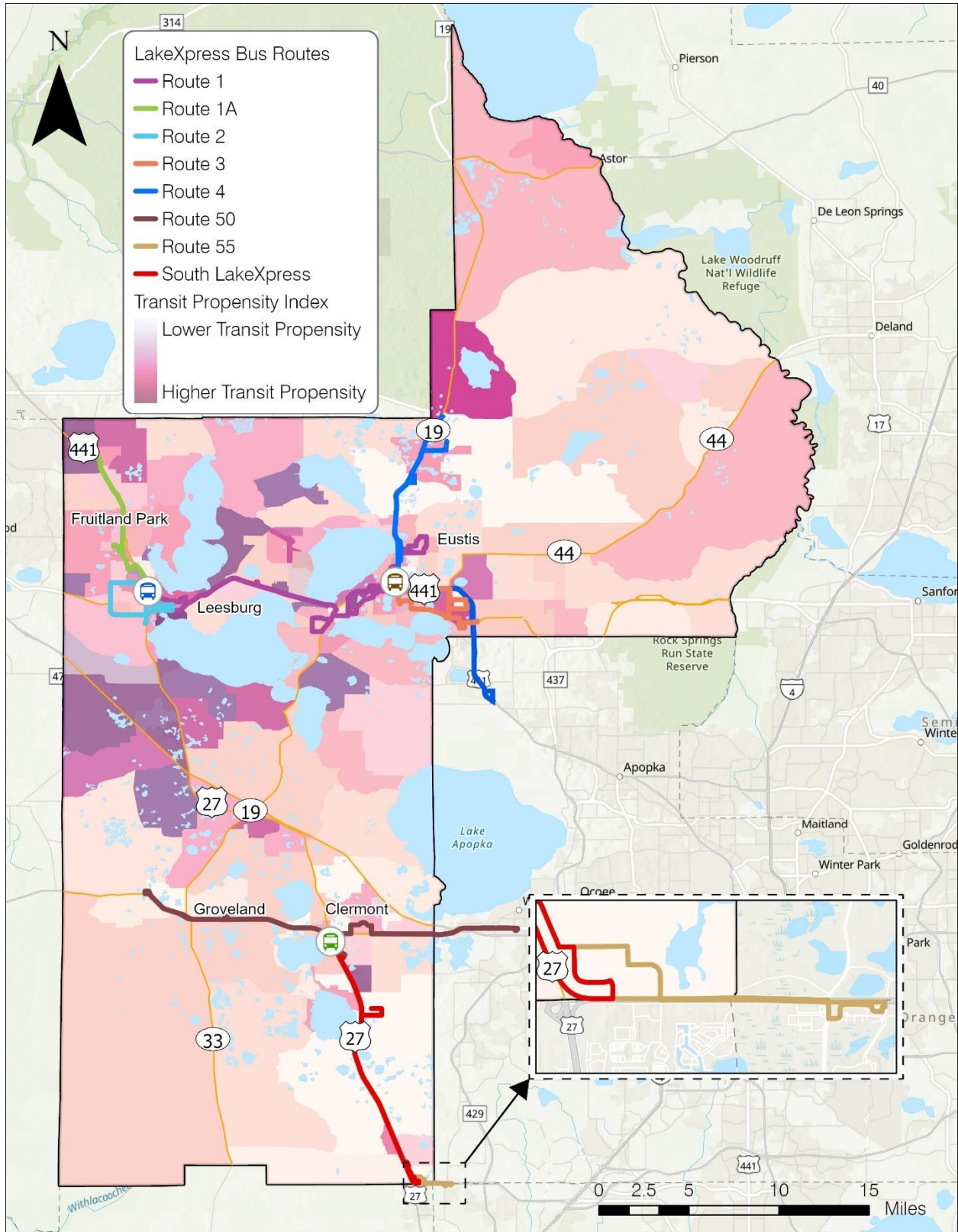
Source: ACS 5-Yr Estimates 2017-2021 (2021)

ACS Five-Year Estimates data for 2021 was utilized at the Block Group level to identify areas containing the highest concentration of transit-dependent populations. Map 7-5: Transit Propensity Index with LakeXpress Routes shows an overlay of these three equally weighted demographic variables, which visualizes where higher transit propensity populations in Lake County reside. As shown, areas of higher transit propensity include Lake County's main urban areas, such as Clermont, Eustis, and Leesburg. Additionally, less dense county areas, such as northwest of Fruitland Park, southwest of Leesburg, and northeastern communities, such as Astor Park and Altoona, showed high transit propensity. While these less dense areas may be unlikely to justify stand-alone fixed-route service, paratransit or on-demand options may be considered to serve these communities' TD populations.

The transit propensity analysis was compared to Justice40 eligible Census Tracts shown in Map 7-6. Justice40 is a Federal Government initiative that ensures that federal investments serve historically disadvantaged communities. A comparison of these maps shows consistency between areas that are higher in transit propensity as well as traditionally underprivileged communities, particularly in higher density areas such as Leesburg, Eustis, Fruitland Park, as well as in the northeast communities of the County such as Altoona and in areas directly north of the intersection of US 27 and SR 19 where population and employment density are low as indicated in Map 7-1 and Map 7-3.

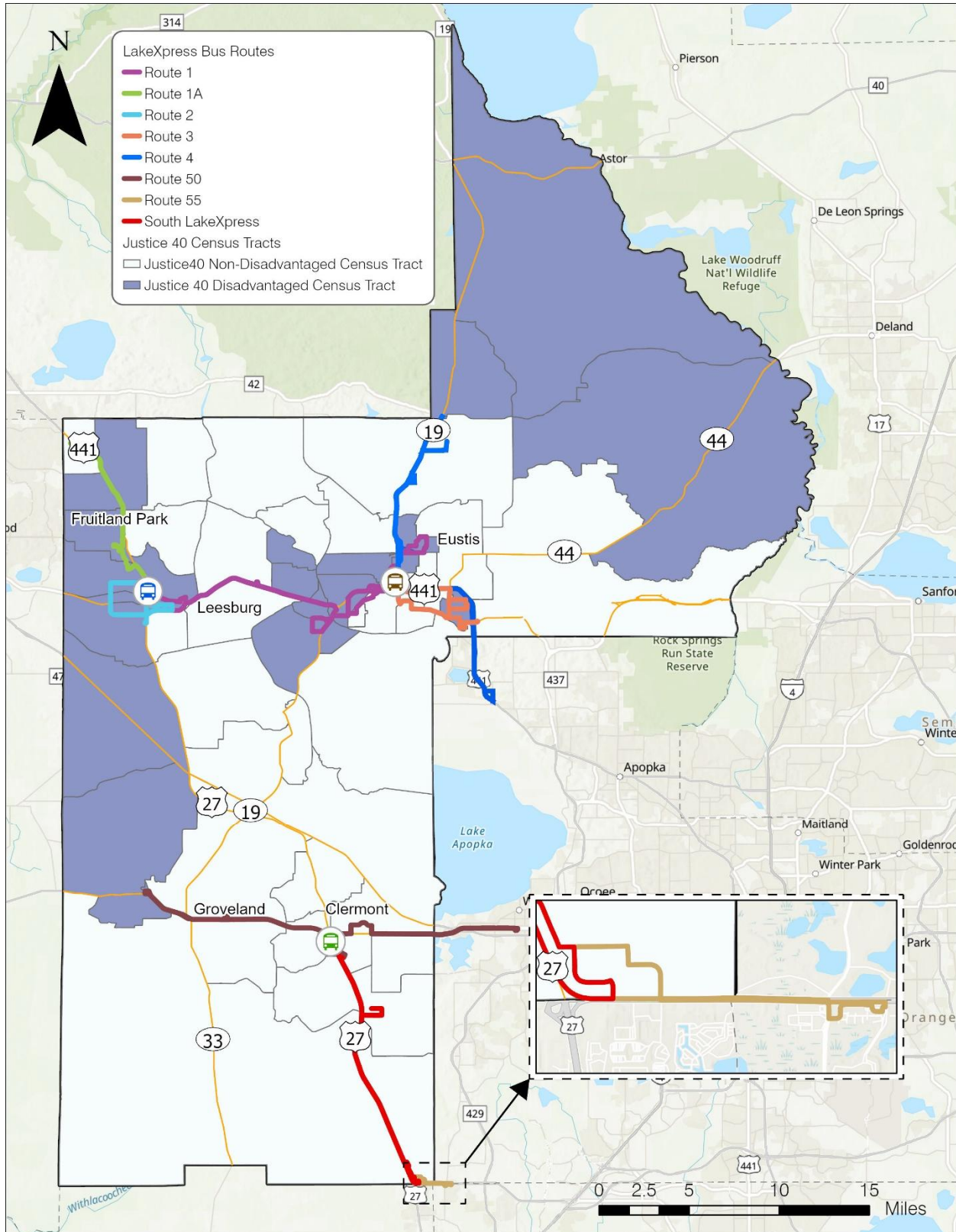


Map 7-5: Transit Propensity Index with LakeXpress Routes





Map 7-6: Justice 40 Census Tracts with LakeXpress Routes





RIDERSHIP DEMAND ANALYSIS

In addition to the transit market analysis, a LakeXpress fixed-route ridership demand analysis was conducted utilizing ridership forecasts prepared with the FDOT-approved transit demand forecasting tool, Transit Boardings Estimation and Simulation Tool (TBEST). This analysis gauges ridership demand at the route and system-wide level using a baseline of existing LakeXpress service levels.

TBEST is a comprehensive transit planning tool and ridership forecasting model capable of providing short- and mid-term transit ridership forecasts consistent with existing transit operational needs and TDP development standards. TBEST considers the following factors when producing model outputs:

- **Transit Network Connectivity:** The level of connectivity between routes within the fixed-route bus network. Greater connectivity within the fixed-route bus network allows LakeXpress to operate a more efficient service for passenger trips and a rider's ability to traverse the County.
- **Temporal and Spatial Accessibility:** The level of service frequency and distance between bus stops in the fixed-route bus network. Less frequent bus service is perceived as less reliable, leading to lower transit utilization. Similarly, the larger the physical distance between potential transit customers and their bus stop will lead to lower utilization of transit as well.
- **Time-of-Day Variations:** TBEST considers peak-period travel periods by rewarding peak times with higher ridership forecasts.
- **Route Competition and Route Complementation:** TBEST accounts for competition for ridership between routes. Routes that connect to the same destinations or anchor points or traverse the same road corridors have potential riders split between those routes. Conversely, synchronized routes that support each other in serving major destinations or transfer points benefit from that complementary relationship.

The ridership demand analysis section outlines the inputs and assumptions used to model LakeXpress service, including a description of the modeled TBEST scenario run, and summarizes the produced ridership forecasts.

Model Inputs, Assumptions, and Limitations

TBEST uses demographic characteristics of the transit service area and network as model inputs. The LakeXpress ridership forecast model utilized TBEST version 4.8 in addition to the newly released 2023 Land Use Model, allowing for more up-to-date assumptions on Lake County's current land use patterns. The TBEST Land Use Model contains parcel-level data developed by the Florida Department of Revenue (DOR) statewide tax database. The DOR parcel data utilizes land use designations and supporting attributes that allow for applying Institute of Transportation Engineers (ITE)-based trip generation rates at a parcel level as a factor in modeling travel activity. While the user may adjust the TBEST Land Use Model to allow for greater flexibility in inputting assumptions not captured by the model, no changes to the model were made for this analysis. While the TBEST model accounts for land use data and the configuration of the fixed-route system, it cannot account for roadway network conditions. Therefore, ridership forecasts cannot show direct sensitivity to roadway traffic conditions, speeds, or lane configurations. The following other considerations were made when applying the TBEST model to attain ridership forecasts:



Transit Network

A base LakeXpress fixed-route network was developed to reflect existing 2023 conditions. The most recent version of the LakeXpress GTFS file was altered to reflect the combining of LakeXpress routes 50E (Clermont to Winter Garden) and 50W (Mascotte to Clermont) into Route 50. In addition, TBEST allows for the coding of stop-level special generators that serve major trip generators such as hospitals, park-and-rides, shopping malls, and universities. While these are often employed to account for locations that may generate more transit ridership, special generators were not utilized for this analysis as they were found to create ridership levels at specific locations that were not reflective of observed existing conditions for LakeXpress (i.e., Clermont Park and Ride).

Demographic Data

Demographic data that was utilized as the base input for the model was derived from the 2020 Census geography and population characteristics, 2021 ACS 5-Year Estimate tables, 2020 Longitudinal Employer-Household Dynamics (LEHD) Employment data, and the 2022 Florida Parcel Land Use data as provided by TBEST. Using those data inputs, the model can capture market demand (population, demographics, employment, and land use characteristics) within a quarter-mile (1/4) of each stop.

Population and Employment Growth Rates

TBEST utilizes a socio-economic data growth function to project population growth and employment data. Socio-economic growth rates were assumed using the University of Florida's Bureau of Economic and Business Research (BEBR) medium growth rate projections for 2025-2030. As applied, these growth rates do not reflect fluctuating economic conditions experienced in real-time.

Microtransit Ridership Estimations

For zone-based transit services such as microtransit that may be under consideration for LakeXpress, TBEST cannot develop ridership forecasts. Therefore, microtransit alternatives were conducted utilizing a different methodology described in Appendix E.

TBEST Model Limitations

According to Rule 14-73.001 Florida Administrative Code, TBEST is an FDOT-approved model for transit ridership forecasting required for TDPs in Florida. However, while TBEST has become an essential and widely-used tool for these evaluations for transit agencies, model outputs do not account for extraneous factors such as latent transit demand that could yield higher ridership, and correspondingly, model outputs may not correctly account for actual transit demand. Additionally, TBEST cannot account for externalities such as marketing changes, changes in fare, local conditions, and other public disruptions that may lead to lowered ridership, such as the COVID-19 Pandemic.

While TBEST provides ridership projections at both the route segment and stop level, TBEST is best utilized as a comparison tool for relative ridership productivity. Consequently, model outputs are not absolute ridership projections but can be used to evaluate service alterations that LakeXpress may consider.

Due to these considerations, it is essential that LakeXpress integrates sound planning judgment and lived experience of transit operations for the agency when interpreting TBEST results.



Ridership Forecasts

Using these inputs and factoring in the considerations described above, a base model for LakeXpress was validated for 2023. Using this validated model as a base, TBEST ridership forecasts were developed for this TDP Major Update for the base planning year (2023) and a horizon year of 2033. Table 7-2 shows the TBEST-generated annual ridership forecasts, assuming no service changes occur. Overall, ridership is anticipated to grow by 23.8%.

Although the TBEST ridership projections do not project any decreases in utilization across the routes, it does not indicate substantial growth either. Since these ridership projections are based on existing daily ridership data provided by LakeXpress for FY23 year-to-date, routes such as the South Lake Express show a significantly low change in absolute ridership for the base and horizon year. The South Lake Express is a peak-hour-only service launched in December 2022. The TBEST model may not depict an accurate ridership projection for new routes such as the South Lake Express due to its infancy as a route and the time it may take to market a new route, which TBEST cannot model.

For LakeXpress to grow its ridership beyond what has been forecast, service enhancements should be targeted strategically by LakeXpress to accommodate growth and changing travel behaviors across the County. Section 8 of this TDP will identify service, capital, and technology enhancements that may allow LakeXpress to serve its customers and Lake County over the next decade.

Table 7-2: LakeXpress Fixed-Route Ridership Projections and Ridership Growth, 2023-2033

Route Name	Annual Ridership, 2023 Projection	Annual Ridership, 2033 Projection	Absolute Change, 2023 - 2033	Average 10-Year Ridership Growth
Route 1	58,650	72,260	13,610	23.2%
Route 1A	41,055	50,494	9,439	23.0%
Route 2	23,460	29,289	5,829	24.8%
Route 3	19,890	24,776	4,886	24.6%
Route 4	15,300	18,886	3,586	23.4%
Route 50	27,042	33,367	6,325	23.4%
Route 55	7,905	10,134	2,229	28.2%
South Lake Express	255	338	83	32.5%
Total:	193,557	239,544	45,987	23.8%



Section 8 : Transit Alternatives and Evaluation

As LakeXpress plans for its future, transit needs and alternatives were developed, representing the program for future transit needs over the next ten years. The following alternatives to be discussed were developed without consideration of funding constraints and define a vision for the future of LakeXpress transit service.

These alternatives were developed based on a comprehensive needs assessment utilizing data gathered and discussed in previous sections of this TDP. A prioritization matrix of identified transit alternatives was created to establish the 10-year implementation and financial plans for this TDP.

DEVELOPMENT OF TRANSIT NEEDS

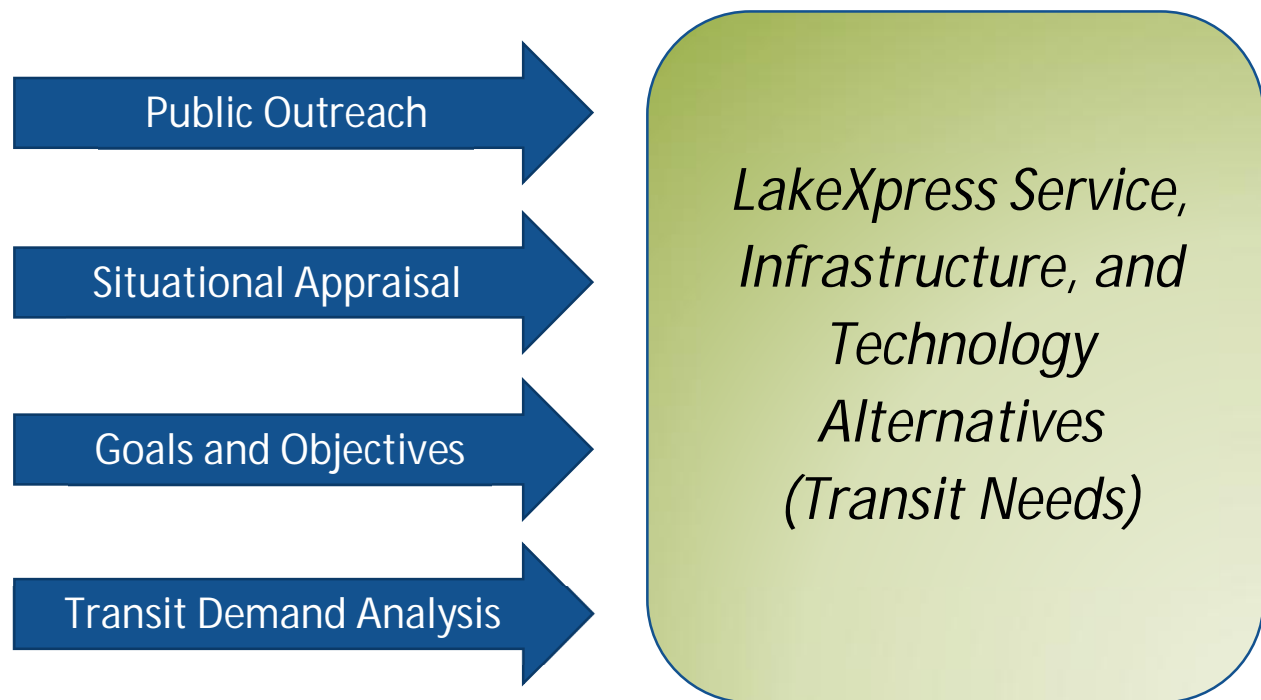
The transit alternatives that were developed for this 2023-2033 TDP Major Update consist of enhancements to the existing LakeXpress system that seek to increase ridership and enhance the experience of LakeXpress customers. The alternatives were developed based on data gathered through the following techniques:

- **Public Outreach:** As discussed in Section 4, a comprehensive public engagement process guided the development of this TDP. Public workshops, grassroots events, stakeholder interviews, and on-board surveys were all tools utilized to discuss priorities for improving LakeXpress service over the next ten years. Primarily, onboard surveys and appearances at public events allowed for meaningful conversations with LakeXpress customers regarding how the agency meets their needs and the improvements they would like to see going forward.
- **Situation Appraisal:** As discussed in Section 5, a comprehensive review of the operating environment in which LakeXpress operates allowed for an improved understanding of the system and a foundation for service improvements that can be explored.
- **Goals and Objectives:** As discussed in Section 6, an overview of the existing and new policy guidance for LakeXpress was conducted. The developed objectives and policies allow for improved focus on achieving community goals, as highlighted by LakeXpress customers, staff, and concerned stakeholders.
- **Transit Demand Analysis:** As discussed in Section 7, assessing the transit market and demand allowed for an enhanced understanding of areas within Lake County that are forecasted to have greater transit demand in the future. Ridership forecasts using TBEST allowed for an understanding of potential growth rates for LakeXpress utilization. Additionally, a comprehensive analysis utilizing TBEST ridership forecasts and Replica trip origin and destination data that shows the ridership potential for implemented service enhancements will be provided in this section as well.

Figure 8-1 shows a diagram summarizing the components of the following transit needs plan. Based on these strategies, alternatives were developed and categorized into three groups: service, technology, and capital infrastructure enhancements.



Figure 8-1: LakeXpress Transit Needs Development Process



SERVICE ALTERNATIVES

Service alternatives that were analyzed include enhancements to existing routes, such as changes to route configuration, improved frequency, extended service spans, and weekend service. Additionally, new service alternatives were explored to serve and connect communities in Lake County not served by transit services.

Existing Service Improvements

Improved fixed-route frequencies, service hours, and new weekend service were enhancements identified as significant needs. The following targeted improvements were identified for the LakeXpress system:

- **Expand Service Span to 10:00 PM for All Existing Fixed Routes:** Extended weekday service was identified as a need for existing and potential customers who work, go to school, or run errands at later hours. Most LakeXpress routes operate until 8:00 PM, with only the 50 and the 55 running later hours. Later night service was also identified as the third highest priority from the onboard survey results.
- **Higher Frequency Service for Routes 1 & 2:** More frequent service on higher-performing routes would provide existing and potential LakeXpress customers with more reliable and faster service. Improving frequency from 60 to 30 minutes for Routes 1 and 2 was identified as a critical priority. Additionally, the on-board survey results identified frequency improvements as the second highest priority of LakeXpress riders.
- **Weekend Service Expansion for Routes 1, 1A, 2, & 3:** All LakeXpress service operates on weekdays. Weekend service on specific higher-performing routes should reflect current weekday operating conditions for these routes. Expanding service to the weekend was identified as the top priority of LakeXpress riders from the on-board survey results.



Route Modifications

- **Route 4 Modifications:** Route 4 runs service from Altoona in northern Lake County to Zellwood in Orange County, facilitating a connection to the LYNX transit system, Route 44. Based on existing ridership trends, removing service from Route 4 into Altoona and having the route service Altoona to the Mount Dora Walmart would allow for more frequent service along with targeting areas of Route 4 that demonstrate more transit propensity and densities. This modification is proposed to be coupled with the new on-demand microtransit service described below.
- **Route 50 Modifications:** The current Route 50 acts as one of three primary fixed routes in south Lake County, serving Mascotte in Southeast Lake County towards Winter Garden in Orange County. A proposal to have the Route 50 end service at the Lake County line before entering Orange County is proposed to allow for improved performance for the Route (i.e., improved on-time performance and better connections at the Clermont Park and Ride). Additionally, alternative service via an express route connecting Clermont to Winter Garden would mitigate the reduction of Route 50 service into Orange County (See Winter Garden Express below).

New Services and Expansions

- **Extension of Route 1A to Summerfield (Marion County):** Route 1A currently serves The Villages' Spanish Springs Station in north Lake County to Leesburg. A proposal to operate Route 1A towards the community of Summerfield, approximately 2 miles north of the Route's northern terminus, has been a priority suggestion for current riders who would like to see service into Marion County. In addition, service requests by stakeholders in Lady Lake include deviations to improve access to disadvantaged neighborhoods west of US 27. The 1A extension into Summerfield would continue operating at a 60-minute frequency.
- **New Express Service Connecting Leesburg to Clermont (27 Express):** A commonly identified gap in the LakeXpress fixed-route network was the lack of connection between the northern and southern portions of the County. A proposed express service that connects Leesburg from the Citizens Transfer Center towards the Clermont Park-and-Ride would allow for improved interconnectivity across the LakeXpress system. Furthermore, this new service would connect to the growing Ford Commerce Park. The proposed 27 Express service span would operate similarly to the current span for the South Lake Express, operating during peak-hour times.
- **Winter Garden Express:** The Route 50 modifications described above would be complemented with a new express route. This route would operate during peak hours of the day. It would better serve the commuter market traveling into Orange County for employment.
- **Microtransit Services:** Besides the fixed route network, proposed on-demand microtransit zones allow current and potential LakeXpress riders to experience enhanced mobility options. Microtransit programs can provide riders with better first and last-mile connections to their destinations. LakeXpress can develop the ability to allow microtransit customers to make same-day reservations to enhance the practicality and attractiveness of the services. The following microtransit zones have been suggested in Lake County:
 - **Wolf Branch Microtransit Zone:** A weekday on-demand service zone operating from 6:00 AM to 7:00 PM for the Wolf Branch Innovation District area, located east of Mount Dora is proposed to support the new development expected to grow over the coming decade. This new service would be coupled with the Route 4 modification described above.

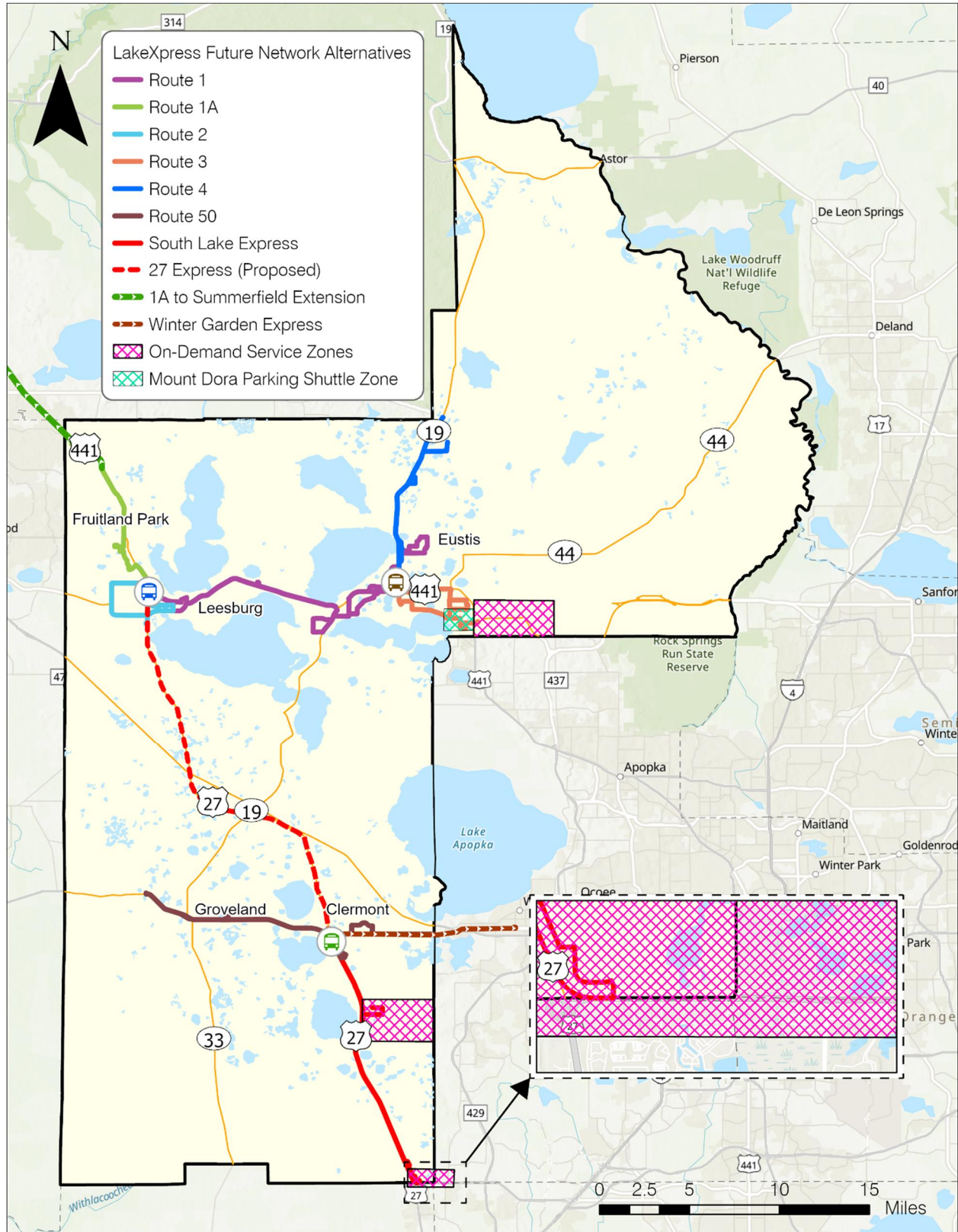


- **Wellness Way MicroTransit Zone:** A weekday on-demand service zone that would operate from 6:00 AM to 7:00 PM for the Wellness Way area, a significant development within incorporated and unincorporated Clermont east of US Highway 27, which is expected to grow as a major commercial and residential hub within Lake County. This service would connect those within the Wellness Way region to employment and retail hubs within the zone.
- **Four Corners Microtransit Zone (Replacement of Route 55):** A weekday on-demand zone for the Four Corners area that would operate from 6:00 AM to 7:00 PM is proposed as a replacement for Route 55, which currently operates in the area. The existing Route 55 operates during morning and evening peak hour times at 30-minute frequencies. Replacing the Route with a microtransit zone will allow for greater flexibility for riders within the zone.
- **Mount Dora Parking Shuttle:** A Friday through Sunday parking shuttle service that would operate from 11:00 AM to 11:00 PM for Downtown Mount Dora has been a consideration for residents and stakeholders in the community as a potential way to ease parking and travel issues for residents and tourists visiting Lake County. This shuttle would connect various parking lots within the city and allow riders to get around Downtown Mount Dora more easily.

Map 8-1: LakeXpress Future Network Alternatives Map shows the entire network of LakeXpress Service Alternatives that were discussed.



Map 8-1: LakeXpress Future Network Alternatives Map





TECHNOLOGY ALTERNATIVES

Technological improvements adopted by LakeXpress can help improve the rider experience and improve operational efficiency. The following technology enhancements were identified as critical priorities for LakeXpress operations:

- **Wi-Fi on Buses:** Adding Wi-Fi capabilities to LakeXpress vehicles would allow riders to easily access the internet and enable bus riders without cellular service plans to access LakeXpress trip planning tools within the agency's available real-time bus tracking application. Additionally, the on-board survey effort identified adding Wi-Fi capabilities to buses as a priority.
- **Mobile Ticketing Application:** Currently, all LakeXpress buses use cash-only boxes for fare collection, which results in riders having to pay with the exact amount of the total cash fare (i.e., no change provided). Passes are requested and available via mail. A mobile ticketing application with an on-board validator will expand fare payment options for bus riders. Working in concert with wifi on-board the buses, the mobile ticketing tool will further enable broader access to the system.
- **Zero-Emission Fleet Transition Plan:** To consider the transition towards zero-emission vehicles for their fleet, a fleet transition plan would be required to be completed by LakeXpress. A fleet transition plan is a pre-requisite for applying for FTA grant programs 5339(b) (Grants for Buses and Bus Facilities Competitive Program) and 5339(c) (Low or No Emission Program).
- **Fixed-Route CAD/AVL Enhancements: (Real-time Tracking)** Enhancements to the CAD/AVL system would allow for improved real-time bus tracking and data collection. Additionally, the on-board survey found that LakeXpress riders were unaware of or dissatisfied with the current real-time bus information system. Riders would like to see more easily accessible bus real-time location and arrival information to plan their travel better.

CAPITAL ALTERNATIVES

Capital improvements are needed to accommodate LakeXpress operations as the system grows in ridership, staffing levels, and fleet size. New facilities and improved infrastructure in strategic areas can help accommodate this growth in the future. The following capital needs were identified as critical priorities for LakeXpress operations:

- **Existing Fleet Replacement:** As discussed in the Goals and Objectives section, LakeXpress desires to maintain a 6-year average age for all fixed-route rolling stock. Implementing the agency's comprehensive fleet replacement strategy and TAM plan will support the effort to achieve that goal over the next ten years.
- **South County Satellite Operations Facility:** It has been the goal of LakeXpress to open a satellite operations facility that would better support South County routes. A proposed location near the intersection of US 27 and Independence Boulevard in Groveland would be able to accommodate bus staging and light-duty preventative maintenance activities, along with small-scale dispatch and administrative functions; this is important as the system grows and as new service enhancements are added to the South Lake area.
- **Bus Stop Infrastructure and Amenities:** Improved bus stop infrastructure, including new shelters, benches, and ADA-compliant bus stop pads, will improve accessibility and comfort for LakeXpress riders. Bus stop improvements should be prioritized at high-use stops (i.e., high ridership stops). Improvements to bus stops should also aim to improve lighting, visibility to bus

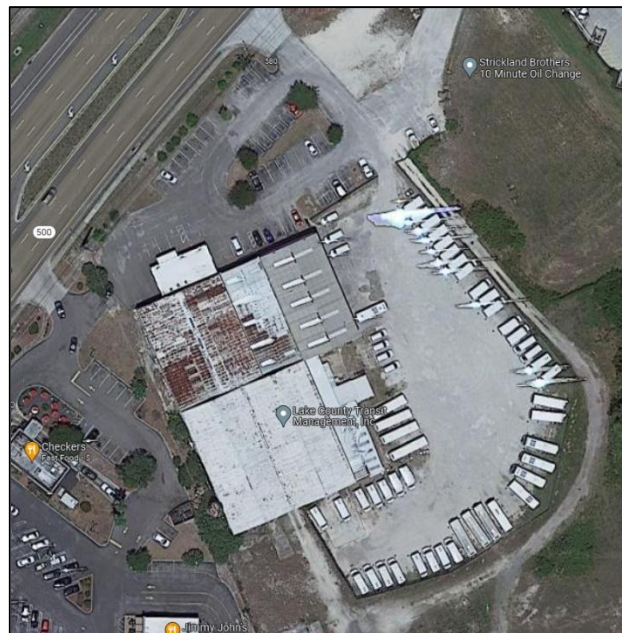


drivers, and ADA accessibility. Investments in bus stop improvements would enhance the experience of LakeXpress riders while potentially attracting new riders.

- Sidewalk Improvements Near Bus Stops: Similar to concerns about improved bus stop infrastructure, improved sidewalk connections would allow safer and more comfortable walking conditions for riders accessing their bus stop. Sidewalk connections should be strategically considered as part of new developments or redevelopments along LakeXpress bus routes, as upfront sidewalk installations and improvements are less costly and more feasible.
- Enhancements at Existing Transfer Centers: Facility enhancements at Ardice and Citizens Transfer Centers and at the Clermont Park-and-Ride were identified as key priorities by LakeXpress riders and operators. Specifically, adding passenger seating, bathrooms, shade features, and an office/breakroom for operators would allow a more comfortable experience for all transfer center users. Additionally, the inclusion of bathrooms at transfer facilities has been identified as a top priority by operators to avoid using off-site bathrooms and ensure buses don't run late due to operator breaks.

- New Administration and Operations Facility: A major capital need identified for LakeXpress is the development of a new Administration and Operations Facility. Currently, both functions occur at two locations, about 20 minutes apart. They are not adequate for meeting the future growth of the system. Furthermore, the current operations facility presents several operational and financial challenges, including the following:

- Leased Property – Any improvement to the current location requires additional approvals and negotiations with the existing landowner.
- Off-Site Refueling – No on-site fueling facility requires the LakeXpress vendor to use off-site commercial refueling stations. Using general retail and commercial refueling establishments does not allow for savings on bulk fuel purchases in the quantities needed to run the LakeXpress system.
- Inadequate Parking and Driveways – The gravel bus parking areas and driveways are incompatible with heavy-duty bus operations, require additional maintenance given vehicle weights, and add more wear and tear to fleet vehicles.
- Constrained Space – The current location is not suited for system expansion. In fact, the existing operation is constrained by the existing space, including parking, maintenance activities, and maneuvering vehicles on the property.





SERVICE ALTERNATIVES METHODOLOGY

Both quantitative and qualitative methods were used to develop, evaluate, and prioritize the service alternatives discussed in this section. Prioritizing these service alternatives provides LakeXpress a tool to choose which alternatives to implement, given limited resources and potential funding requests that may be available in the future.

The remainder of this section will review the evaluation criteria to prioritize the service alternatives and the methodology utilized.

Evaluation Criteria

Table 8-1 provides the alternative analysis criteria, including measures utilized, descriptions of measures, and weightings applied to properly rate each alternative. These criteria were each assigned a score of either 1 (Low), 3 (Medium), or 5 (High) to determine their overall priority ranking.

Table 8-1: Alternative Analysis Criteria and Weighting

Criteria	Measure	Description
<i>Community Support</i>	Public Input	Level of expressed interest based on public outreach and survey results.
	Stakeholder Input	Level of expressed interest from community leaders.
<i>Ridership Potential</i>	Transit Propensity	Service to locations in Lake County exhibiting higher transit propensity.
	Ridership Projections	Ridership projections for fixed-routes from TBEST and microtransit ridership estimations.
<i>Regional Connectivity</i>	Intra-County Connections	Promotion of service between different communities within Lake County.
	Inter-County Connections	Promotion of service between Lake County and other adjacent counties.

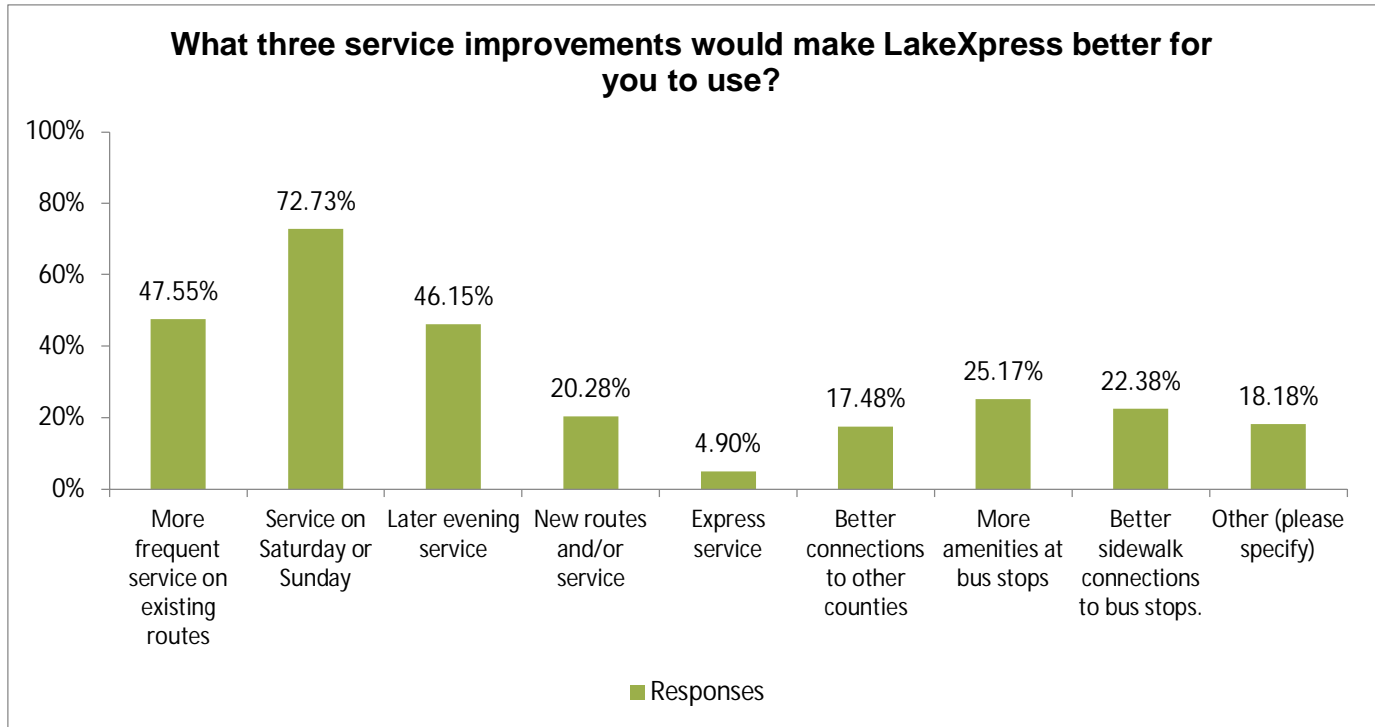
Community Support

Community support was scored based on the public outreach efforts detailed in this TDP. Through public meetings, grassroots events, stakeholder interviews, and onboard rider surveys, numerous opinions on service improvements were discussed and contributed to how potential alternatives were developed and scored. Figure 8-2: On-Board Survey Responses for Top Service Improvements shows the results from the on-board survey, showing the top three priorities for LakeXpress riders being more frequent, evening, and weekend service. Based on these results, weekend service was scored as the highest priority. At the same time, higher frequency and evening service were also scored highly.

Additionally, community stakeholder support was gauged to identify top priorities. Leaders from the town of Lady Lake in the northwest portion of the County identified extending Route 1A into Marion County as a top priority identified by their residents. City leaders also identified a weekend parking shuttle for downtown Mount Dora as a solution to alleviate parking issues and traffic throughout Downtown Mount Dora on weekends by residents and tourists. The development of the 27 Express Route connecting Leesburg to Clermont, along with additional weekend service, were also identified by County leaders as top transit priorities.



Figure 8-2: On-Board Survey Responses for Top Service Improvements



Ridership Potential

Evaluating ridership potential provides insight into whether new service or existing route adjustments are feasible. Ridership estimations are best applied when treated as forecasts and not exact measurements. Transit ridership is influenced by extraneous factors that may not be captured by ridership forecasting or estimation techniques. The goal of estimating potential ridership changes associated with future network changes is to make assessments based on sound planning judgment and best-available data resources. To assess ridership potential, the transit propensity analysis as well as ridership forecasts were utilized.

Map 8-1 shows the transit propensity map overlaid with the future alternatives network and provides insight into whether those changes will best serve those most in need of transit. The existing Route 1A and a potential route extension into Marion County serve high-propensity transit users, particularly elderly communities within Lady Lake, Fruitland Park, and the Villages. Enhanced frequency from 60 to 30 minutes for Routes 1 and 2 serve higher propensity areas in Leesburg and Eustis. Service for high transit propensity areas of Mount Dora on weekends also scored highly. In addition, the proposed 27 Express route runs through high-propensity areas south of Leesburg.

Table 8-2: LakeXpress Future Network Ridership Estimations shows the TBEST ridership projections for the LakeXpress future network compared to the existing network in 2033. Routes 1, 1A, and 2 all have the highest forecasted total growth in ridership. This growth can be attributed to the higher frequency, evening service, and weekend service for Routes 1 and 2, while weekend and evening service, as well as extending into Marion County, allow for increased ridership on Route 1A. A separate methodology was utilized for the microtransit ridership projections using Replica trip origin-destination data. The microtransit ridership estimation methodology is provided in Appendix E.



Map 8-2: Transit Propensity with LakeXpress Future Alternative Network Overlay

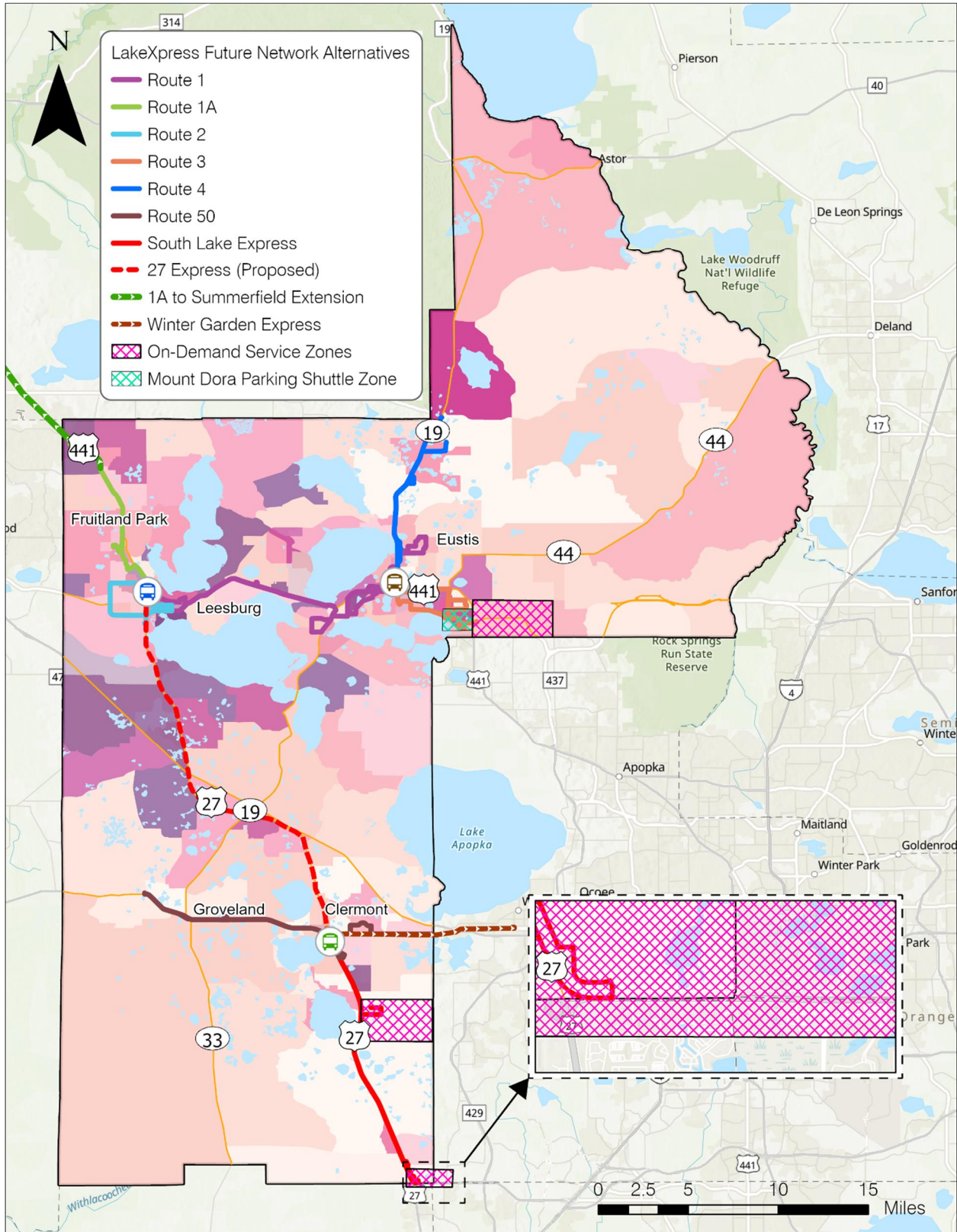




Table 8-2: LakeXpress Future Network Ridership Estimations

Route Name	2033 Baseline Annual Ridership (Weekday Only)	2033 Future Network Improvements Annual Ridership	2033 Baseline vs. Future Network Improvements Percent Change	2033 Future Network Improvements Annual Weekday Ridership	2033 Future Network Improvements Annual Weekend Ridership
Route 1 ¹	72,260	111,543	54%	98,945	12,598
Route 1A ¹	50,494	66,319	31%	56,742	9,577
Route 2 ¹	29,289	56,960	94%	51,149	5,811
Route 3 ¹	24,776	30,819	24%	25,533	5,286
Route 4 ^{1 3}	18,886	12,450	-34%	12,450	--
Route 50 ¹	33,367	37,214	12%	37,214	--
Route 55 ^{1 3}	10,134	0	-100%	--	--
South Lake Express ¹	338	349	3%	349	--
27 Express ¹	--	1,669	N/A	1,669	--
Winter Garden Express ¹	--	3,662	N/A	3,662	--
Four Corners Microtransit ²	--	5,013	N/A	5,013	--
Wolf Branch Microtransit ²	--	1,846	N/A	1,846	--
Wellness Way Microtransit ^{2 4}	--	--	--	--	--
Mount Dora Parking Shuttle ²	--	2,957	N/A	2,957	--
Total:	239,544	330,180	--	297,529	33,272

¹ Estimated using TBEST Ridership Forecasting Tool

² Estimated using Replica Microtransit Ridership Estimation

³ Reductions in ridership for Route 4 and Route 55 are the result of truncation and or/replacement of service by microtransit alternatives

⁴ Due to the Wellness Way area's lack of current development and population, the Microtransit ridership estimation process yielded negligible results (See TDP Appendix E for a summary of the on-demand ridership forecasting tool methodology).

Regional Connectivity

Future network alternatives were also ranked based on the extent to which regional connections were provided. Regional transit was assessed within the following two frameworks of regional connectivity:

- Intra-County Connections: Service alternatives that promote connection between different communities within Lake County.
- Inter-County Connections: Service alternatives that promote connection between counties adjacent to Lake County, such as Sumter, Marion, Volusia, Seminole, Orange, Osceola, and Polk Counties.

Regional connections are essential to allowing transit riders to travel greater distances, furthering access to employment, education, and other life-sustaining resources. For intra-county connections, alternatives were assessed based on how well they facilitated movement across different communities within Lake County. The proposed 27 Express service was given the highest possible score due to its potential to be the only transit connection between the north and south portions of the County. Additionally, service expansions for existing routes were also given a high score due to improving travel speeds and spans of service for Routes that connect across multiple communities.



Inter-county connections were considered as well to factor in improved multi-county transit networks. The Route 1A extension into Summerfield and the Winter Garden Express were given high scores for this criterion as both routes promote access to Marion and Orange Counties, respectively. The Four Corners area microtransit zone was also awarded a high score due to its serving both Lake and Orange Counties.

Prioritization of Service Alternatives and Discussion

Using the above criteria, each alternative was assigned an overall score to determine which alternatives should be prioritized based on community support, ridership potential, and regional connectivity. Table 8-3: Service Alternatives Prioritization Matrix and Scores highlight the scoring breakdown of each alternative for each criterion utilizing a score of either 1 (Low), 3 (Medium), or 5 (High). The cumulative score for each alternative is also shown in the Table. Through developing a multi-criteria evaluation process, service alternatives are assessed based on quantitative and qualitative measures.

As shown in Table 8-3, top-ranked choices help bolster the vision that LakeXpress and its rider hold on improving the transit experience and accommodating future transit demand growth. The prioritization matrix is one of many tools that help justify service enhancements by LakeXpress. However, these priorities should be balanced with funding considerations and future growth patterns in Lake County. The prioritization of these service alternatives can help guide LakeXpress staff and stakeholders to identify steps to implement the transit needs of the present and future population of Lake County.



Table 8-3: Service Alternatives Prioritization Matrix and Scores

Alternative	Community Support		Ridership Potential		Regional Connectivity		Total Score
	Public Support	Stakeholder Support	Transit Propensity	Projected Ridership	Intra-County Connection	Inter-County Connection	
Weekend Service Expansions for Routes 1, 1A, 2, & 3	5	5	3	5	5	1	24
Route 1A to Summerfield Extension	3	5	5	3	3	5	24
Express Service from Leesburg to Clermont (27 Express)	5	5	5	1	5	1	22
30 Minute Frequency Service for Routes 1 & 2	3	3	5	3	5	1	20
Expanded Service Span to 10:00 PM for All Existing Fixed-Routes	3	3	3	5	5	1	20
Mount Dora Parking Shuttle	3	5	5	3	1	1	18
Four Corners Microtransit	3	3	1	3	1	5	16
Route 50 into Orange County Replaced with Winter Garden Express	1	3	1	3	3	5	16
Wellness Way Microtransit	1	5	1	1	3	1	12
Wolf Branch Microtransit	1	3	3	1	3	1	12
Route 4 from Mount Dora to Zellwood Section Removed	1	3	1	1	1	1	8



Section 9 : Ten Year Financial and Implementation Plan

A finance plan was developed to help understand funded and unfunded needs. The financial plan evaluates costs and revenues for service (i.e., operating) and capital needs. Understanding available funding also facilitates the development of a reasonable implementation plan for TDP priorities. This section presents cost, revenue, and policy assumptions used to develop the TDP financial and implementation plans. Expenses are then compared against projected revenue for existing revenue sources to identify the unfunded need for operating and capital. Financial summaries and supporting charts and figures are presented to visually represent and understand the scale of funded versus unfunded needs.

FINANCIAL PLAN ASSUMPTIONS

Operating Cost Assumptions

Several assumptions were developed to forecast operating costs for the 10-year planning horizon of the TDP. The basis of those assumptions includes the adopted Lake County FY 2024 budget, discussions with LakeXpress staff, and historical cost information.

- Total FY 2024 operating costs are based on the adopted Lake County FY 2024 budget.
- The operating cost for the existing and new fixed routes and on-demand services is \$107.35 per vehicle revenue hour. It is based on annual vehicle revenue service hours and annual operating costs from the FY 2022 NTD report.
- The revenue service hours for the existing and new fixed routes and on-demand services are based on FY 2022 service hours, projections for new services implemented in FY 2023 (i.e., South Lake Express), and estimated service hours established for the service alternatives.
- The annual operating cost for ADA and TD paratransit services is based on the FY 2024 operating budget and adjusted to the year of expenditure dollars.
- Annual administration costs are based on the FY 2024 operating budget and adjusted to the year of expenditure dollars.
- All operating costs are reflected in year of expenditure dollars using a conservative 2.5% inflation rate. The conventional approach assumes the operational cost increases over time due to increases in energy costs and wages.

Capital Cost Assumptions

Similar to operating costs, reasonable assumptions were developed for projecting capital costs. Sources included the LakeXpress grant applications, discussions with LYNX staff, and reviewing peer facility development costs for estimating expenses associated with LakeXpress facility needs.

- The FY 2024 capital costs are based on the FY 2024 budget.
- New vehicle costs are assumed to include necessary fleet expansion to implement the 10-year service alternatives and replace vehicles in the existing fleet. The fleet replacement assumes a 12-year life span for heavy-duty fixed-route vehicles and a 5-year life span for cutaway paratransit, on-demand, and support vehicles. The vehicle unit cost assumption, and the size of the total fixed-route, on-demand, paratransit, and support vehicle fleet are shown in Table 9-1.
- Stop amenities and sidewalk infrastructure costs are based on an estimated annual lump sum allocation of \$500,000.



Table 9-1: Vehicle Cost and Total Fleet

	Vehicle Cost (2023\$)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Heavy Duty, Fixed-Route	\$607,000	16	17	21	21	21	21	22	22	22	22
Cutaway, On-Demand	\$185,000	0	0	0	0	1	2	2	3	3	3
Cutaway, Paratransit	\$185,000	32	32	32	32	32	32	32	32	32	32
Minivan, Paratransit	\$50,000	10	10	10	10	10	10	10	10	10	10
Support SUV	\$32,000	6	6	6	6	6	6	6	6	6	6
Support Truck	\$54,000	1	1	1	1	1	1	1	1	1	1
Total Fleet		65	66	70	70	71	72	73	74	74	74

- Capital costs for transfer center upgrades and new operations facilities include design and construction costs. They are based on current typical industry costs for similar-scale facilities. The design and construction costs are distributed over four years, depending on the project size. The following are the respective facility costs in 2023 dollars:
 - Transfer Center Upgrades, \$2,000,000
 - Clermont Bathroom Renovations, \$1,000,000
 - New Administrative and Operations Facility, \$100,000 (Planning), \$30,000,000 (Design and Construction)
 - South County Operations Facility, \$5,000,000
- Technology equipment costs, including CAD/AVL upgrades, mobile data terminals, and mobile ticket program validators, are based on a conservative estimate derived from current costs.
- All capital costs are reflected in year of expenditure dollars using a conservative inflation rate of 3.5% for vehicle purchases and 4% for all other capital expenses.

Operating and Capital Revenue Assumptions

Operating and capital revenue assumptions were developed to identify and project available funding sources over the 10-year TDP implementation period. Revenue assumptions and projections are based on historical grant award information provided by LakeXpress staff and the FY 2024 operating budget.

- The total combined operating and capital budget for FY 2024 reflects a balanced budget of \$15,519,437. The operating budget in FY 2024 is higher than the budget (and revenue) assumed in later years because it reflects unexpended balances and federal grants from previous years.
- FTA Section 5307 grant funding is based on the FY 2023 5307 apportionment and the LYNX suballocation. Based on previous year grant awards, the grant is assumed to be split between operating revenue (65% federal award, 15% local match) and capital revenue (20%).
- FTA Section 5311 grant funding for operating revenue is based on the FY 2024 Lake-Sumter MPO TIP (50% federal, 50% local). The estimated capital revenue is assumed to cover the cost of one Gillig vehicle per year (80% federal, 20% local).
- FTA Section 5310 grant funding is assumed to cover the cost of three cutaway vehicles per year (80% federal, 20% local).
- FTA Section 5339 grant funding is estimated based on the FY 2022 pending award.
- Public Transportation Block Grant (PTBG) funding is assumed in the plan based on the FY 2024 Lake-Sumter MPO TIP (50% state, 50% local)



- The TD trip and Equipment grant funding is assumed in the plan based on the FY 2023 award (90% state, 10% local)
- Other state funding sources include the Motor Fuel tax.
- The local funding sources include an Interfund Transfer which is assumed to include the local match for state and federal awards, advertising revenue, and paratransit service charges.

PHASED IMPLEMENTATION PLAN

Based on the prioritization of service alternatives and discussion with stakeholders and project review committee, the phased implementation plan was established as shown in Table 9-2. Table 9-2 lists each project's name, provides a description of the proposed change, and also indicates operating cost, vehicle expansion requirement, along with an indication of whether the project is an unfunded need.



Table 9-2: Phased Implementation Plan

Service Improvement	Description	Implementation Year	Annual Operating Cost (2023\$)	Expansion Vehicle Requirement	Unfunded Need? (Y/N)
Phase 1 (2024 - 2028)					
Implement 27 Express	Implement peak hour express service on US 27 between the Citizens Transfer Station and Clermont Park and Ride	2025	\$380,000	2	N
Add Weekend Service to Routes 1, 1A, 2, and 3	Implement Saturday and Sunday service	2026	\$1,100,000		Y
Route 1A Extension	Extend Route 1A to Summerfield in Marion County	2026	N/A		N
Later Evening Service	Extend service hours to 10 PM on weekdays on all routes	2027	\$632,000		Y
Enhance Service Frequency on Routes 1 and 2	Enhance service frequency to every 30 minutes on Routes 1 and 2	2027	\$1,570,000	4	Y
Four Corners On-Demand	Replace Route 55 with new on-demand microtransit service	2028	\$337,000	1	N
Phase 2 (2029 - 2033)					
Route 4 Realignment	Realign Route 4 to end southbound service at the Mount Dora Walmart	2029	N/A		N
Wolf Branch On-Demand	Implement new on-demand microtransit replacement service into Wolf Branch and Zellwood	2029	\$337,000	1	Y
Wellness Way On-Demand	Implement new on-demand microtransit replacement service In the Wellness Way area	2029	\$337,000	1	Y
Route 50 Realignment	Realign Route 50 to end eastbound service at the Orange County line	2030	N/A		N
Winter Garden Express	Implement peak hour express service along SR 50 between the Clermont Park and Ride to Winter Garden in Orange County	2030	\$154,000	1	Y
Mount Dora Shuttle	Implement new on-demand microtransit service in Downtown Mount Dora	2031	\$206,000	1	Y



OPERATING COSTS AND REVENUES

Table 9-3 summarizes annual operating statistics and operating costs for the fixed route and paratransit services in the 10-year TDP implementation plan. In addition to the costs shown in Table 9-3, LakeXpress' annual operating costs include TD service which is reflected in the operating summary in Table 9-5.

Table 9-3: 10-Year TDP Fixed Route and On-Demand Annual Summary

		# of Routes	Annual Service Hours	Annual Operating Cost (2023\$)	Total Fleet Size
Existing Services		8	37,100	\$4.1 M	16
10-Year Service Alternatives	Fixed Route	9	68,000	\$7.5 M	22
	On-Demand	4	11,000	\$1.2 M	3*

*On demand fleet size assumes expansion vehicles. Route 55 is assumed to be replaced by the Four Corners on-demand service.

Currently, the LakeXpress operation is funded by a mix of local, state, and federal revenue sources, as shown in Figure 9-1. Importantly, 13 percent of that revenue comes from local sources (i.e., advertising, charges for other services, and the general fund). \$1.275 million is budgeted from the Lake County General Fund in FY 2024. This is significant in that it reflects LakeXpress ability to leverage a small proportion of local dollars to support the majority of the operating budget with state and federal dollars.

As shown in Figure 9-2, operating revenues over the 10-year TDP planning horizon will continue to consist of a mix of revenue sources. The estimate of local, state, and federal operating revenue for the entire 10-year planning horizon of the TDP was determined using the matching fund assumptions indicated earlier in this section. The majority of operating revenue is assumed to come from federal sources, approximately 50 percent. Local funding is estimated to be approximately 28 percent and state funding makes up approximately 22 percent over the 10-year period.

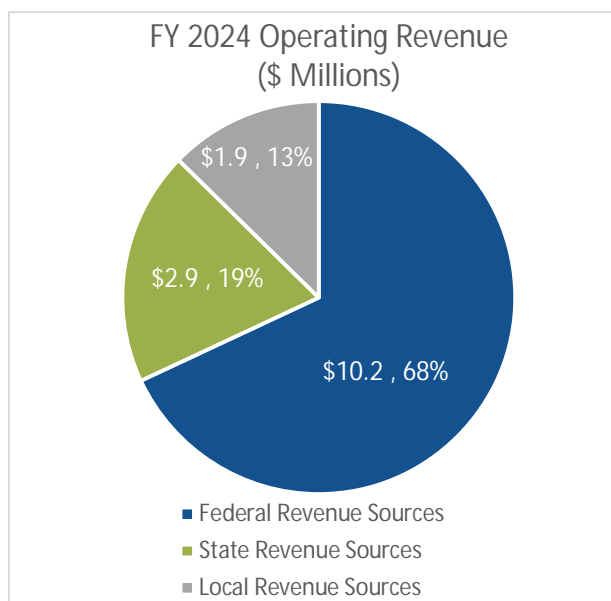


Figure 9-1: FY 2024 Operating Revenue

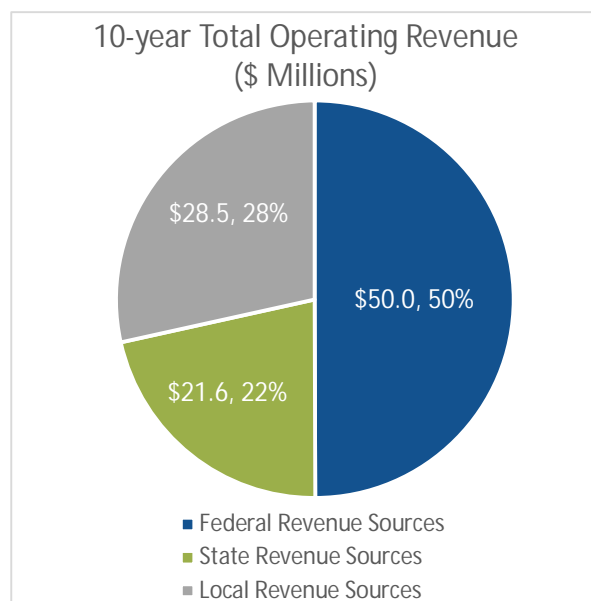


Figure 9-2: 10-Year Operating Revenue



The total cost of the proposed TDP service plan shown in Table 9-5 is \$154 million. Based on that total operating expense, there is approximately \$54 million of unfunded operating needs. Unfunded needs reflect increases in service and service levels over the 10-year TDP horizon. The 10-year unfunded need is shown in Figure 9-3.

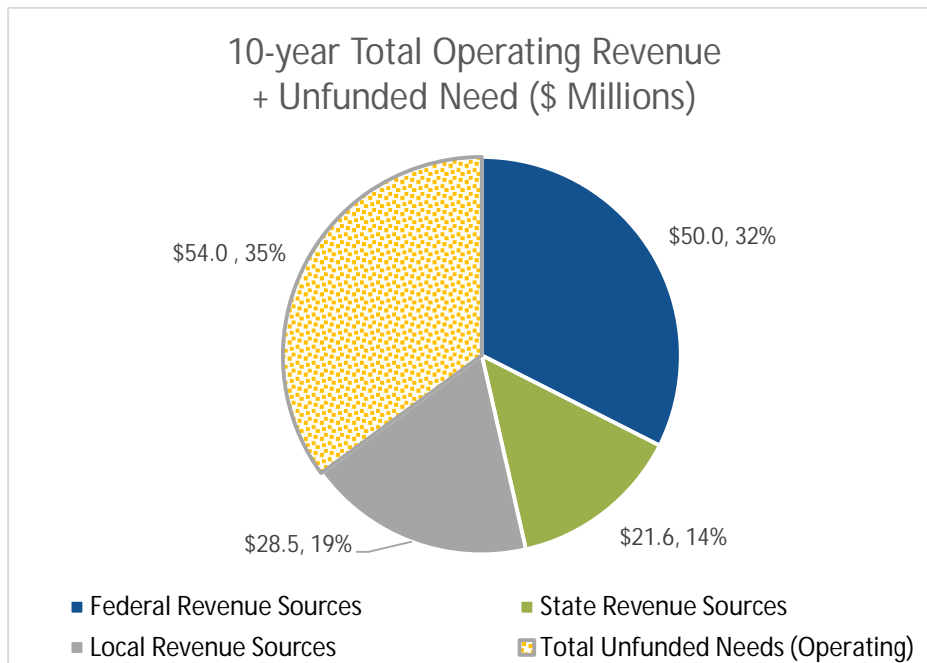


Figure 9-3: 10-year Operating Revenue Sources and Unfunded Need

CAPITAL COSTS AND REVENUES

The estimated total capital cost for the 10-year needs is approximately \$80.2 million, as shown in Table 9-4. Based on the capital revenue projected over the ten years shown in Figure 9-4, the unfunded capital program needs is approximately \$43 million. Increases in capital expenses in FY 2024 and FY 2025 can be attributed to developing the new operations and maintenance facility. In later years, much of the year-to-year cost differential can result from fleet replacement and the development of the South Lake satellite operations facility. These expenses are consistent with the most prominent capital expense categories shown in Table 9-4.

Table 9-4: 10-Year TDP Capital Cost (YOE)

	2024 to 2028	2029 to 2033	10-Year Total
Fleet Replacement	\$6,206,000	\$12,539,000	\$18,745,000
Fleet Expansion	\$3,562,000	\$1,885,000	\$5,447,000
Facility Improvements	\$4,750,000	\$3,816,000	\$8,566,000
New Operations Facilities	\$26,854,000	\$16,555,000	\$43,409,000
Technology Upgrades	\$2,216,000	\$1,834,000	\$4,050,000
Total	\$43,588,000	\$36,629,000	\$80,217,000

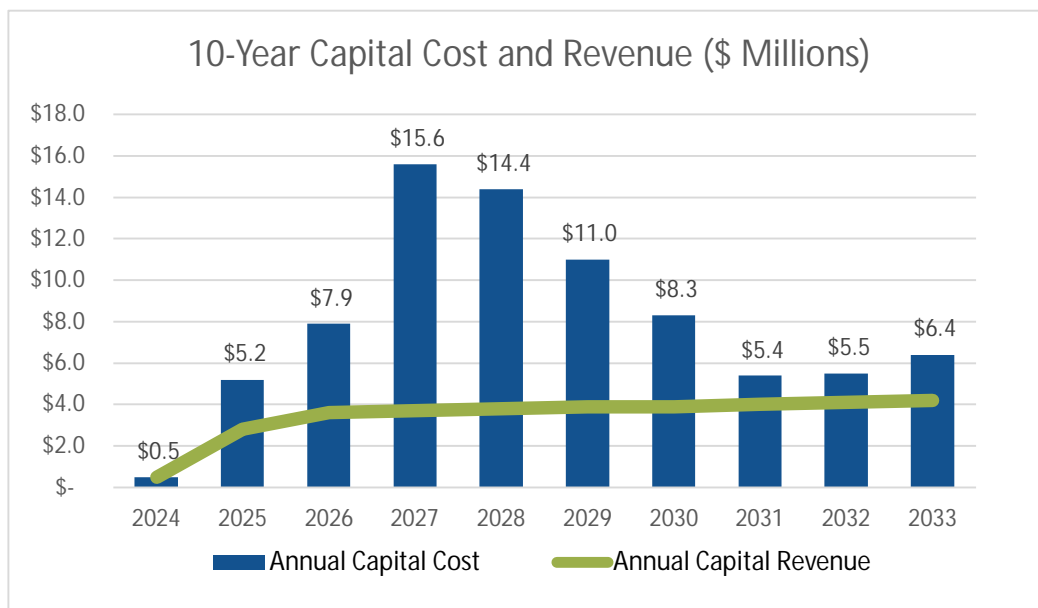


Figure 9-4: Annual Capital Cost and Revenue from FY 2024 to FY 2033

10-YEAR COST/REVENUE SUMMARY

Table 9-5 and Table 9-6 summarize the plan’s annual operating and capital costs and supporting revenues. As shown, the plan would cost \$154 million to operate and includes another \$80 million in capital costs. The operating costs would be funded with a mix of local, state, and federal sources and fare-based revenues generated by existing and added transit services, equating to \$100 million in 10-year operating revenue. This results in \$54 million of unfunded operating needs. The capital plan reflects a 10-year revenue estimate of \$34.5 million, resulting in unfunded needs in the amount of \$46 million.

Table 9-5: 10-Year TDP Financial Plan Operating Cost and Revenue Summary

Operating Cost											
Fiscal Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Existing Service											
Fixed Route	\$5,360,272	\$4,289,379	\$3,608,389	\$3,698,599	\$3,537,098	\$3,238,115	\$2,285,129	\$2,342,257	\$2,400,814	\$2,460,834	\$33,220,885
Paratransit	\$5,340,694	\$5,474,211	\$5,611,067	\$5,751,343	\$5,895,127	\$6,042,505	\$6,193,568	\$6,348,407	\$6,507,117	\$6,669,795	\$59,833,834
Administration	\$665,587	\$699,282	\$716,764	\$734,684	\$753,051	\$771,877	\$791,174	\$810,953	\$831,227	\$852,008	\$7,626,606
Reserves	\$3,652,884										
Proposed New Service											
Fixed Route	\$0	\$235,833	\$2,167,498	\$4,621,973	\$4,737,522	\$5,243,370	\$6,591,834	\$6,756,630	\$6,925,546	\$7,098,684	\$44,378,890
On Demand	\$0	\$0	\$0	\$0	\$380,949	\$780,945	\$800,469	\$1,071,451	\$1,098,237	\$1,125,693	\$5,257,744
Annual Operating Cost	\$15,019,437	\$10,698,705	\$12,103,718	\$14,806,598	\$15,303,746	\$16,076,812	\$16,662,173	\$17,329,698	\$17,762,941	\$18,207,014	\$153,970,844
Operating Revenue											
Fiscal Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Federal Revenue Sources											
5307	\$10,219,349	\$3,531,089	\$3,601,711	\$3,673,745	\$3,747,220	\$3,822,164	\$3,898,607	\$3,976,580	\$4,056,111	\$4,137,233	\$44,663,809
5311	\$0	\$543,330	\$554,197	\$565,281	\$576,586	\$588,118	\$599,880	\$611,878	\$624,116	\$636,598	\$5,299,984
State Revenue Sources											
PTBG	\$1,987,311	\$950,149	\$969,152	\$988,535	\$1,008,306	\$1,028,472	\$1,049,042	\$1,070,023	\$1,091,423	\$1,113,252	\$11,255,666
TD Trips	\$822,777	\$856,018	\$873,138	\$890,601	\$908,413	\$926,581	\$945,112	\$964,015	\$983,295	\$1,002,961	\$9,172,910
Motor Fuel	\$105,000	\$109,242	\$111,427	\$113,655	\$115,928	\$118,247	\$120,612	\$123,024	\$125,485	\$127,994	\$1,170,615
Local Revenue Sources											
Interfund Transfer	\$1,275,000	\$2,403,459	\$2,451,529	\$2,500,559	\$2,550,570	\$2,601,582	\$2,653,613	\$2,706,686	\$2,760,819	\$2,816,036	\$24,719,853
Advertising Fees	\$110,000	\$114,444	\$116,733	\$119,068	\$121,449	\$123,878	\$126,355	\$128,883	\$131,460	\$134,089	\$1,226,359
Mid-Fla Community	\$110,000	\$114,444	\$116,733	\$119,068	\$121,449	\$123,878	\$126,355	\$128,883	\$131,460	\$134,089	\$1,226,359
Medicaid Waiv Sv Ag	\$90,000	\$93,636	\$95,509	\$97,419	\$99,367	\$101,355	\$103,382	\$105,449	\$107,558	\$109,709	\$1,003,384
Other Transport Fees	\$300,000										\$300,000
Annual Operating Revenue	\$15,019,437	\$8,715,811	\$8,890,128	\$9,067,930	\$9,249,289	\$9,434,275	\$9,622,960	\$9,815,419	\$10,011,728	\$10,211,962	\$100,038,938
Total Unfunded Needs (Operating)	\$0	\$(1,982,893)	\$(3,213,590)	\$(5,738,668)	\$(6,054,457)	\$(6,642,538)	\$(7,039,213)	\$(7,514,279)	\$(7,751,213)	\$(7,995,052)	\$(53,931,905)
Rollover Balance	\$0	\$(1,982,893)	\$(5,196,484)	\$(10,935,152)	\$(16,989,609)	\$(23,632,147)	\$(30,671,361)	\$(38,185,640)	\$(45,936,853)	\$(53,931,905)	

Table 9-6: 10-Year TDP Financial Plan Capital Cost and Revenue Summary

Capital Cost											
Fiscal Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Vehicles											
Bus Fleet Replacement			\$272,745	\$2,089,639			\$1,544,547	\$1,922,541	\$1,654,557	\$2,187,486	\$9,671,516
Bus Fleet Expansion		\$650,234	\$2,691,967		\$219,722	\$227,412	\$772,274	\$243,610		\$642,175	\$5,447,393
Paratransit Fleet Replacement		\$2,774,473	\$205,113	\$424,584	\$439,444	\$411,801	\$3,530,575		\$504,272	\$782,882	\$9,073,143
Facilities											
Stop Amenities, Infrastructure, Sidewalks	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$5,000,000
Transfer Center Upgrades			\$2,249,728								\$2,249,728
Clermont Bathroom Renovations							\$1,315,932				\$1,315,932
New Admin / Operations Facility											\$36,343,719
Conceptual Design Study		\$108,160									
Design and Construction			\$1,687,296	\$12,283,515	\$12,774,855	\$9,489,893					
South County Ops Facility							\$328,983	\$2,394,996	\$2,490,796	\$1,850,305	\$7,065,080
Technology											
AV Study		\$108,160									\$108,160
Zero Emission Evaluation					\$121,665						\$121,665
Para/FR CAD/AVL upgrade		\$757,120									\$757,120
Para/FR CAD/AVL Annual Maintenance		\$162,240	\$168,730	\$175,479	\$182,498	\$189,798	\$197,390	\$205,285	\$213,497	\$222,037	\$1,716,953
MDTs on Para		\$13,628	\$14,173	\$14,740	\$15,330	\$15,943	\$16,581	\$17,244	\$17,934	\$18,651	\$144,224
Mobile Ticket Program w/ validators		\$113,568	\$118,111	\$122,835	\$127,749	\$132,858	\$138,173	\$143,700	\$149,448	\$155,426	\$1,201,867
Annual Capital Cost	\$500,000	\$5,187,582	\$7,907,862	\$15,610,792	\$14,381,263	\$10,967,705	\$8,344,454	\$5,427,376	\$5,530,503	\$6,358,962	\$80,216,499
Capital Revenue											
Fiscal Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Local Revenue Sources											
5311 - Local Match		\$115,484	\$117,794	\$120,150	\$122,553	\$125,004	\$127,504	\$130,054	\$132,655	\$135,308	\$1,126,507
5310 - Local Match		\$126,305	\$128,831	\$131,407	\$134,035	\$136,716	\$139,450	\$142,239	\$145,084	\$147,986	\$1,232,054
Federal Revenue Sources											
5307	\$200,000	\$1,086,489	\$1,939,383	\$1,978,170	\$2,017,734	\$2,058,088	\$2,099,250	\$2,141,235	\$2,184,060	\$2,227,741	\$17,932,150
5310	\$300,000	\$461,938	\$471,176	\$480,600	\$490,212	\$500,016	\$510,016	\$520,217	\$530,621	\$541,234	\$4,806,030
5339		\$461,254	\$470,479	\$479,889	\$489,486	\$499,276	\$509,262	\$519,447	\$529,836	\$540,433	\$4,499,362
5311		\$505,218	\$515,323	\$525,629	\$536,142	\$546,864	\$557,802	\$568,958	\$580,337	\$591,944	\$4,928,216
Annual Capital Revenue	\$500,000	\$2,756,688	\$3,642,985	\$3,715,845	\$3,790,162	\$3,865,965	\$3,943,285	\$4,022,150	\$4,102,593	\$4,184,645	\$34,524,320
Total Unfunded Needs (Capital)	\$0	(\$2,430,895)	(\$4,264,877)	(\$11,894,947)	(\$10,591,101)	(\$7,101,739)	(\$4,401,169)	(\$1,405,225)	(\$1,427,910)	(\$2,174,317)	(\$45,692,179)
Rollover Balance	\$0	(\$2,430,895)	(\$6,695,771)	(\$18,590,718)	(\$29,181,819)	(\$36,283,558)	(\$40,684,727)	(\$42,089,953)	(\$43,517,863)	(\$45,692,179)	



Appendix A

TDP Public Involvement Plan



LakeXpress
2023 Transit Development Plan Major Update

Public Involvement Plan

July 3, 2023

Prepared For:
Lake County Office of Transit Services
P.O. Box 7800
Tavares, FL 32778

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LAKEXPRESS FY 2023 Transit Development Plan Major Update Public Involvement Plan

Overview

LakeXpress started transit operations in May 2007, offering two fixed-route services in Lake County. By 2015, the agency welcomed aboard the two-millionth rider. In 2023 LakeXpress operates eight fixed-routes, providing service throughout the county and connections into Orange, Osceola, and Polk Counties.

Currently, LakeXpress operates eight fixed service routes. Beyond the system's fixed route services, LakeXpress also offers Lake County Connection, a door-to-door paratransit service to meet the additional needs of the community.

Project Background

LakeXpress offers Lake County residents and visitors quality transit connections and supports the central Florida region's goals to provide a multimodal mobility network for all users. Establishing a quality Transit Development Plan (TDP) Major Update is critical in the progress toward reaching these goals. The TDP is required by the Florida Department of Transportation (FDOT) per Sections 339.135 and 339.155 of Florida Statutes. The Plan is a ten-year strategic plan that functions as a guide for providing and further developing public transportation within the LakeXpress service area. It is essential for obtaining state funding for transit operations and activities (Section 341.052 F.S.). With the TDP, LakeXpress seeks to enhance the current transportation system and develop strategies to become a more substantial economic development partner within the community.

This Public Involvement Plan (PIP) has been developed per Florida Rule 14-73.001, which requires the creation of a TDP to include public input. The formal PIP is then submitted for review and approval by the local FDOT District ("the Department," as referenced in the Rule) before the PIP can be implemented. The pertinent language from the Rule is as follows:

"The TDP preparation process shall include opportunities for public involvement as outlined in a TDP public involvement plan, approved by the Department, or the local Metropolitan Planning Organization's (MPO) Public Involvement Plan." – Florida Rule 14-73.001

The following plan has been developed to illustrate how LakeXpress will engage the public and stakeholder groups to inform the TDP Major Update.

Public Involvement Plan Purpose and Goals

Public involvement in transportation planning is essential for a transparent and inclusive plan development process that reflects the community's desires. LakeXpress utilizes the approved local MPO (Lake-Sumter MPO) public involvement process as a framework and guide for educating the public on transportation issues, disseminating information relative to the TDP, and soliciting public input through

various means. Further, the PIP was created to provide a quality public outreach process during the TDP process. This plan will ensure the regional community is offered ample opportunity to engage in the process, participate in project dialogue, and assist with informing leadership of the local perspective related to project elements.

This strategic engagement plan has been developed to provide direction and serve as an implementation guide for community and stakeholder outreach activities. This PIP highlights traditional public relations (PR) and communications methods in addition to LakeXpress digital delivery platforms such as websites and social media handles. COVID has influenced how we communicate and share information with the public. Consequently, this PIP outlines virtual and digital engagement strategies to reach persons who have difficulty or cannot attend in-person activities.

As the TDP development process proceeds, the PIP will evolve to reflect subsequent research, stakeholder input, and other external/environmental factors.

Goals of the Public Involvement Plan

Following established PIP standards from the Florida Department of Transportation "Guidance for Preparing & Reviewing a Transit Development Plan" (2022), the central goals of the LakeXpress TDP Public Involvement Plan include:

- **Promote** greater awareness and understanding of LakeXpress and the TDP process;
- **Encourage** inclusive and comprehensive public input throughout the TDP planning process;
- **Develop** the LakeXpress TDP around the public feedback received through the process; and
- **Enhance** the LakeXpress public participation process through continued process observation and incorporation of new approaches.

How will we achieve these goals?

Build on Prior County Transit Development Planning Efforts

Use prior efforts and results as a springboard for ongoing efforts and new initiatives to ensure continuity and consistency in plan structure and direction.

Actively Engage the Community and Provide Input Opportunities for All Stakeholders

Identify and provide information to all Lake County citizens, visitors, and interested stakeholder agency groups. Provide options for engagement in the public involvement and outreach process, focusing on traditionally under-represented or under-served populations within the planning area.

Inform and Communicate TDP Process and LakeXpress Strategic Vision

Provide holistic and accurate information about the TDP Major Update to citizens and interested stakeholder agency groups as the update progresses.

Traditionally Under-Represented & Under-Served Populations

Title VI of the Civil Rights Act of 1964 bars discrimination based on race, color, and national origin in programs and activities that receive federal funds. Considering Environmental Justice (EJ) in LakeXpress activities is critical for developing the TDP Major Update and supports compliance with Title VI

requirements. During transportation decision-making, EJ considers underserved groups such as transit-dependent, low-income, aging, and other marginalized populations. As part of the TDP Major Update, LakeXpress will identify EJ areas for consideration in the study and employ suitable outreach techniques to encourage their participation.

To achieve the desired outcome and gather valuable input from the intended communities, the public involvement and outreach activities outlined in this PIP will be carefully tailored to different populations in the community. The aim is to ensure that the objective is accomplished and that meaningful feedback is obtained from the target populations.

Public Involvement Activities

The public participation strategies included in this section are intended to reach and encourage feedback and participation from LakeXpress users, potential users, interested community members, and stakeholder organizations.

A project website will be developed and maintained throughout the plan update. The website will serve as a hub of information, allowing interested stakeholders to receive general information, view development status, and provide several opportunities for giving feedback to LakeXpress. Additional engagement methods may generally include user surveys, distribution of newsletters or other printed informational materials, social media and email notices, coordination with ongoing projects, and outreach to Environmental Justice and Title VI populations.

Public involvement activities have been organized into three categories:

1. Gathering Public and Stakeholder Feedback
2. Promotion & Outreach
3. Social & Digital Media Engagement

Gathering Public and Stakeholder Feedback

Obtain public input from the community, stakeholders, and internal audiences on the current LakeXpress transit experience.

Plan Review Committee Meetings

A Plan Review Committee (PRC) will be established to monitor and provide input to the TDP Major Update Process. Members of the PRC will likely include members from LakeXpress and Lake County Administration, including the following:

- LakeXpress Operations Supervisor and/or Transit Coordinator;
- LakeXpress Operations (RATP Dev USA, Inc Management);
- Lake-Sumter MPO staff;
- Lake County Economic Growth; and/or
- Lake County Housing and Community Services.

The PRC will meet up to six times throughout the TDP development and may review each step of the TDP process and provide input on the development of the public participation process.

Stakeholder Feedback

The following stakeholder list consists of those affected by the decisions undertaken in this TDP Major Update. As such, and as part of the public outreach process, LakeXpress will make efforts to communicate and coordinate with each stakeholder. In addition, stakeholder interviews may be performed as needed and as requested throughout the development of the TDP Major Update.

- Florida Department of Transportation (FDOT) District 5
- Lake-Sumter MPO
- Lake County
- City of Clermont
- City of Eustis
- City of Fruitland Park
- City of Groveland
- City of Lady Lake
- City of Leesburg
- City of Mascotte
- City of Minneola
- City of Montverde
- City of Mount Dora
- City of Tavares
- City of Umatilla
- Lake County School Board
- CareerSource Central Florida
- Elevate Lake
- South Lake Chamber of Commerce
- Mount Dora Area Chamber of Commerce
- Lake-Sumter State College
- Advent Health
- Orlando Health
- UF Health

LakeXpress Internal Coordination

Key staff from the LakeXpress organization will be engaged to solicit informed input, discuss possible TDP service enhancements, and understand what may be additionally necessary to implement the Plan strategically to achieve plan goals and objectives.

Board of County Commissioners and MPO Committees

Two presentations will be prepared and delivered to the Lake County Board of County Commissioners (BCC). The first presentation is anticipated to consist of a summary of the TDP, the TDP development process, and public outreach activities conducted to date. The second presentation will be prepared to inform and gather the Board's input on the complete 10-year TDP implementation plan. Contingent on feedback received during the plan development process, one-on-one briefings with Commissioners may be considered.

The MPO Board and its Committees (i.e., Technical Advisory and Citizens Advisory Committees) will also receive presentations on the TDP process and proposed service alternatives. These presentations are an integral and strategic approach to plan adoption as the entire Lake County BCC sits on the MPO Board, effectively creating three opportunities for the TDP-adopting agency Board members to provide feedback on the plan.

Public Workshops

Public workshops will be promoted to provide information and educate the public on LakeXpress improvements and enhancements. These workshops will engage attendees and give exposure to updates to the TDP. Three (3) workshops will be conducted in three different county areas, likely in Clermont *OR* Groveland, Leesburg, and Mt. Dora *OR* Eustis. Feedback and comments on any materials

discussed outside these meetings, including via email or social media, will also be captured and summarized within the project report.

As needed, materials for these workshops will be translated into Spanish and made available upon request. Spanish-speaking staff will also be available during the workshops to provide translation services. Other languages are also available upon request.

Public workshops will be held in centrally located places and will be accessible by transit. Workshops will be held hybrid, allowing the public to attend virtually or in person. If necessary, due to an emergency (e.g., natural disaster or pandemic outbreak), LakeXpress may use an alternate method of hosting public meetings and workshops that are ensured to comply with Federal Transit Administration (FTA) Title VI guidelines.

Project Management

A Project Management Team (PMT) consisting of LakeXpress and Consultant staff has been established to monitor and guide the TDP Major Update process and provide review and approval of the many technical details of the project.

Measurement:

Interview findings (quantitative and qualitative); workshop attendance and participation; survey and comment results

Promotion & Outreach

Create community interest, involvement, and support for the LakeXpress TDP.

Promotional Materials

To support strong engagement with the project, a combination of visual communication materials will be developed and distributed to the community. These materials may include:

- Special informational flyers or newsletters
- TDP fact sheets
- Display boards to be shown at events or workshops
- Project presentations to be delivered at partner meetings and workshops

The materials will be distributed through various outlets and available at public meetings, workshops, and/or community outreach activities. Any presentation materials developed will be made available for all sessions and public workshops. Materials will be offered in Spanish and other languages upon request. All materials will be posted to the project website when developed, remaining for the duration of the TDP Major Update development process.

Alternative methods of distributing information may include:

- Bus shelter posters (unused space)
- Behind the driver notices

- Rider “Take One” handout’s on board buses

As part of the promotional materials, the public will be invited to participate in an online survey tool that will mirror the format and content of similar surveys to be distributed at public workshops and in-person efforts described below.

In-Person Outreach

In-person outreach allows staff to engage with riders face-to-face to receive meaningful input in an informal setting or via digital surveys. Efforts will be made to engage LakeXpress users at LakeXpress Transfer Stations and aboard LakeXpress vehicles. Reaching bus riders is a critical piece of the public outreach effort. To receive input and gain access to a large number of existing riders, similar survey materials as those shared at the public workshops will be distributed.

Rider-specific outreach efforts will include information tables or displays at transfer stations during peak periods and representatives of LakeXpress conducting one-on-one surveys via tablet at those sites or on vehicles. Riders could also participate in the survey at a different time via a weblink or QR code.

Grassroots Outreach Activities

Public workshops serve two purposes: they spread awareness of the plan and gather general feedback. Consequently, grassroots engagement efforts will be performed in a manner that allows for a broad section of the community to react to service proposals in the plan.

Grassroots opportunities may include but are not limited to information tables or stands at community events in different County locations. The Project team will work with LakeXpress staff to determine appropriate venues and events consistent with the TDP schedule.

Legal Advertisements

LakeXpress advertises official meetings in various publications depending on the type and locations of the sessions. Legal advertisements are incorporated into newspapers of general circulation, such as the Orlando Sentinel, preceding each designated session. These notifications will also be published in Spanish in compliance with Executive Order 13166 Access to Services for Persons with Limited English Proficiency (LEP). The notice will also be available on the LakeXpress website for translation into other languages and on the LakeXpress social media channels (Facebook, Twitter, and Instagram).

Measurement

Outreach event listing, number of active participants, and comments received.

Social & Digital Media Engagement

Encourage additional engagements with the project through digital platforms and social media campaigns.

Digital Media & Communication

The TDP team will create digital media content and messaging targeting stakeholders who may not actively participate in the outreach process. Items to be publicized via digital media include project updates, links to project reports and graphics, project schedules, outreach, and meeting announcements.

Digital media methods will also encourage engagement in the TDP process, allowing for questions, concerns, and other comments to be reviewed and responded to promptly.

Social Media

Social media is to be an essential outlet for communicating plan outreach activities. Broad public record statutes and public access (i.e., Sunshine Laws) require a thoughtful, professional approach to engaging public dialogue on social media platforms. Only approved content relevant to the TDP development process will be distributed on LakeXpress social media channels following the agency's social media communications policies and guidelines.

- Messaging will be distributed on existing LakeXpress social media channels as warranted
 - Facebook
 - Twitter
- Social media posts will be targeted, informative, and timely
- Local partners will be encouraged to share social media content

Website

The project website will be a crucial tool for all interested individuals and groups to learn about the TDP process and proposed enhancements or changes that may result from the planning effort. Documents will be available for review, and there will be multiple options for providing comments to the project team.

The site will include project content including reports, updates, graphics, event and meeting schedules, and updated news and outreach announcements. This content will be updated regularly throughout the project. This website content will include the following:

- Study purpose and overview
- Project documents
- Fact sheets and other informational materials
- Public workshop materials
- Project schedule
- Periodic project updates
- Interactive elements, such as a link to the online survey
- Contact information or contact form for comments
- Promotional web banner

Measurement

Website Google Analytics for page views/visitors; Facebook likes; Twitter followers; hashtags; email sign-ups; and virtual/in-person meeting participation.

Documentation of Public Involvement Activities

The results of the public outreach activities described in this PIP will be summarized and documented in the TDP report. Summaries of these activities will be included, along with the survey results, level of participation, and documentation of all organizations reached, including those that actively participated in the plan development process.

As demonstrated through this PIP, regular updates to the various LakeXpress and Lake County committees, including the Lake County Board of County Commissioners, will be provided over the plan development process to educate, inform, and offer the opportunity to gather feedback and input from all stakeholders.

Accessibility

All public materials developed for this project will be available in an accessible format upon request by contacting the TDP Plan consultant at:

- (727) 328-4299,
- Florida Relay,
 - (800) 955-5770 for voice calls,
 - (800) 955-8771 for TTY calls,
- Ryan.Suarez@Kimley-Horn.com.

Individuals requiring accessible formats to participate in real-time events must request them at least two business days before the event.

All publicly distributed materials will be posted on the TDP website. In addition, all formal public forums will be recorded and posted on the TDP website.

Schedule of Activities

A schedule for the public outreach activities identified for the LakeXpress Transit Development Plan Major Update is included in Figure 1.

Figure 1: LakeXpress 2023 Transit Development Plan (TDP) Public Involvement Plan Schedule

Project Schedule			June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
1	Project Management and Administration										
	1.1	Management of Scopt, Schedule, and Budget									
	1.2	Monthly Reporting and Invoices									
	1.3	Establish Plan Review Committee and Meetings									
2	Public Engagement										
	2.1	Prepare Public Involvement Plan									
	2.2	Implement Public Involvement Plan Activities									
		<i>Develop Printed Outreach Materials and Social Media Content</i>									
		<i>Survey</i>									
		<i>Stakeholder Interviews</i>									
		<i>Public Workshops</i>									
		<i>BCC Presentations</i>									
		<i>MPO and Committees</i>									
	2.3	Prepare Summary of Public Involvement Activities									
3	Current and Future Conditions										
	3.1	Data Collection									
	3.2	Document and Evaluate Demographic, Employment, and Land Use Trends									
	3.3	Review Existing Transportation, Transit, and Land Use Plans and Policies									
	3.4	Situation Appraisal									
	3.5	Assessment of Existing Transit Services									
	3.6	Conduct Peer Review of Existing Transit Services									
	3.7	Goals, Objectives, and Performance Measures									
4	Transit Demand Analysis										
	4.1	Forecast Ridership Analysis									
	4.2	Market Assessment									
5	Alternatives Development and Evaluation										
	5.1	Service Improvements									
	5.2	Capital Improvements									
	5.3	Technology, Policy, and Other Improvements									
		On Demand Service Planner									
	5.4	Service Alternatives Evaluation									
		Access2Opportunity									
6	Financial and Implementation Plan										
	6.1	Financial and Implementation Plan									
7	Fare Analysis										
	7.1	Fare Analysis									
8	TDP Documentation										
	8.1	Prepare Draft and Final TDP Report and Executive Summary									

■ Project Review Committee
 ■ FDOT Submittal
 ■ On-Board Survey
■ Board/Committee Presentations
 ■ PIP/Technical Memorandum / TDP Submittal



Appendix B

TDP Public Outreach Materials

Lake County Transit Development Plan

WE WANT YOUR FEEDBACK!



Help us identify public transportation service priorities for Lake County residents and visitors.

Workshops will be held in-person and virtually. Scan the QR code or visit <https://ridelakexpress.com/news/tdp> for more information and to access the virtual meeting options.

Groveland

Wednesday, September 6

4:30 PM – 6:30 PM

E. L. Puryear Building

243 South Lake Avenue

Mount Dora

Thursday, September 7

4:30 PM – 6:30 PM

Community Building

Green Room

520 North Baker Street

Leesburg

Monday, September 11

4:30 PM – 6:30 PM

Venetian Center

1 Dozier Circle

For more information, please contact Bill Hearndon, Transit Operations Supervisor, at (352) 901-0965 or bill.hearndon@lakecountyfl.gov



Lake County Plan de Desarrollo de Transito

Provee Tus Ideas!



Ayúdenos a identificar las prioridades del servicio de transporte público para los residentes y visitantes del condado de Lake. Tres talleres se realizarán de manera en persona y virtual. Escanea el código QR o visita <https://ridelakexpress.com/news/tdp> para obtener más información y acceder a las opciones de reunión virtual.

Groveland

Miercoles, Septiembre 6

4:30 PM – 6:30 PM

E. L. Puryear Building

243 South Lake Avenue

Mount Dora

Jueves, Septiembre 7

4:30 PM – 6:30 PM

Community Building

Green Room

520 North Baker Street

Leesburg

Lunes, Septiembre 11

4:30 PM – 6:30 PM

Venetian Center

1 Dozier Circle

Para más información, contacte a Bill Hearndon, el Transit Operations Supervisor de LakeXpress, Bill.Hearndon@lakecountyfl.gov, (352) 901-0965.



WELCOME! ¡BIENVENIDOS!

Please sign-in and take a handout. If you need translation services, please let us know.
Por favor, regístrese y tome un documento. Díganos si usted necesita un traductor.

What is the Purpose of Today's Workshop?

Lake County and **LakeXpress**, the County's transit service provider, need your help to identify public transportation service priorities for current and future Lake County residents and visitors.



What is a Transit Development Plan (TDP)?

The TDP is a 10-year plan for that guides community investment in public transportation services. The Florida Department of Transportation (FDOT) requires each transit agency to produce a TDP in order to receive State funding to improve its transit services.



Why is Lake County Updating its TDP?

In addition to conducting annual progress reports, **LakeXpress** must update the Lake County TDP every 5 years to identify new transportation needs in the community, prioritize improvements, and determine the amount of funding needed to make service improvements, such as more frequent service or new bus routes.





How Do We Know Where Improvements Are Most Needed?

1 Where People Live

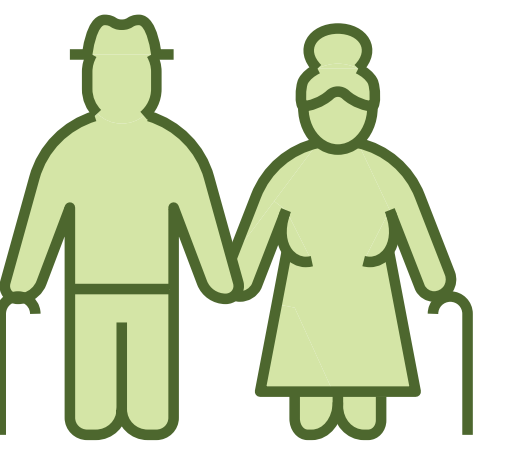
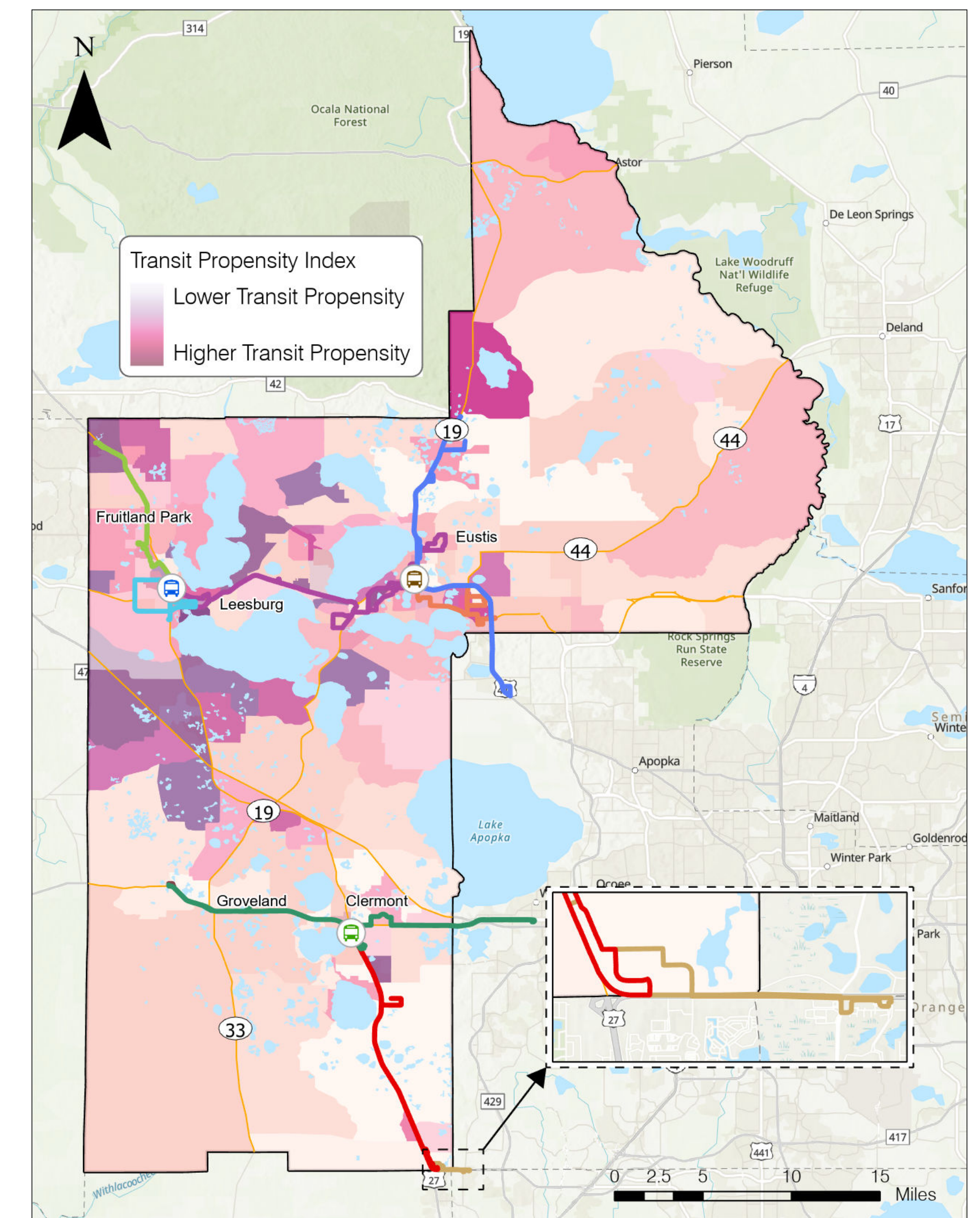
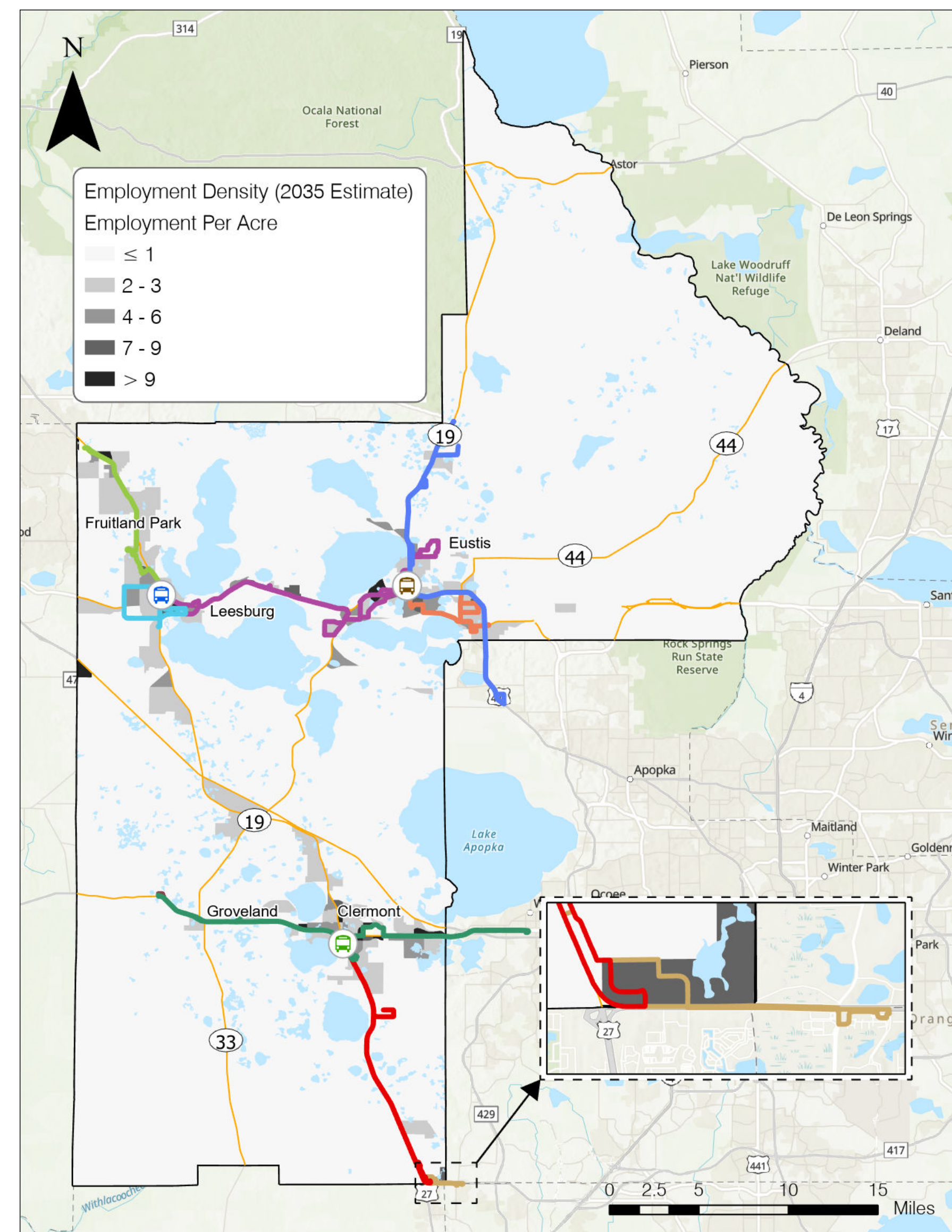
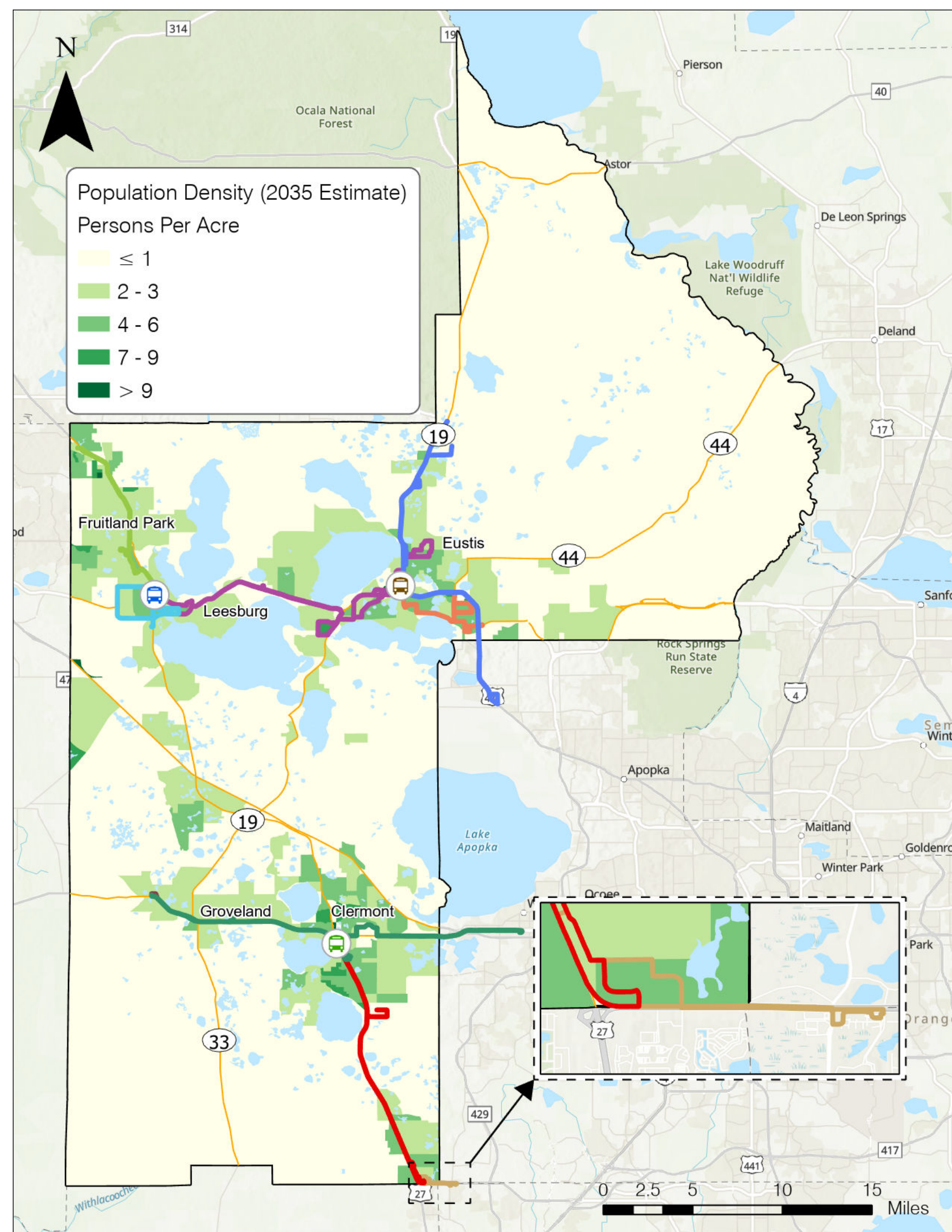
Future **Population Density** helps us determine the areas that will have the greatest amount of people over the next **10** years.

2 Where People Work

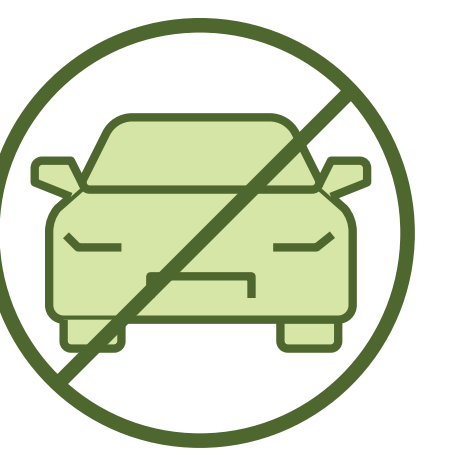
Future **Employment Density** helps us determine the areas that will have the greatest amount of employment opportunities over the next **10** years.

3 Where People Are in Need

A **Transit Propensity Index** helps us determine where people are most in need of **LakeXpress** public transportation services based on **3** population characteristics:



Elderly Population



Households without a Vehicle



Household Income

Areas with the Most People (2035)

1. Clermont
2. Eustis
3. Four Corners
4. Lady Lake
5. Leesburg

Areas with the Most Jobs (2035)

1. Clermont
2. Eustis
3. Four Corners
4. Leesburg
5. Mount Dora

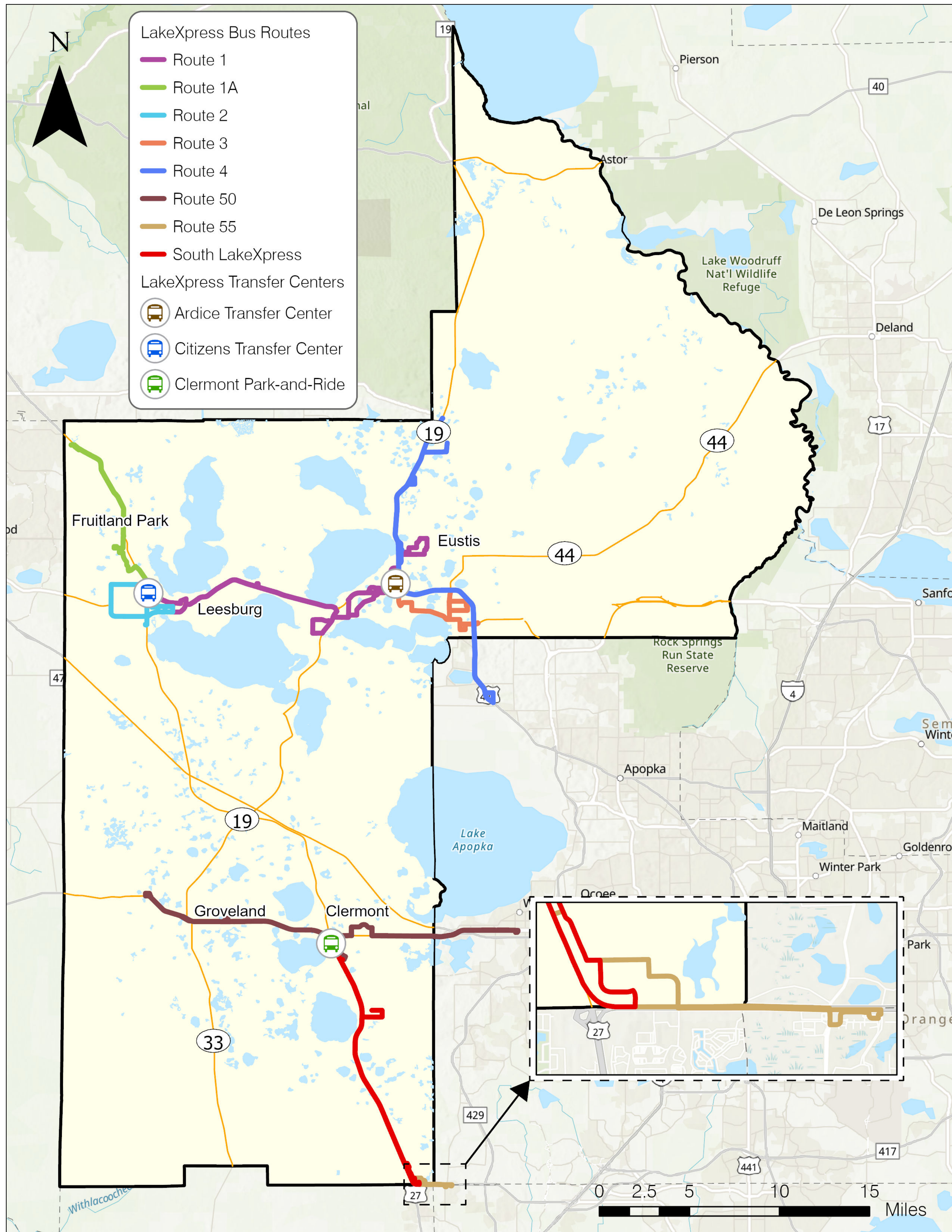
Areas with the Greatest Transit Need

1. Altoona
2. Eustis
3. Clermont
4. Lady Lake
5. Leesburg

Lake County Transit Development Plan (TDP)



What Services Does LakeXpress Offer Today?



Route #	Route Name	Frequency	Monday - Friday Service Hours
1	Leesburg to Eustis	60 min	6:00am - 7:50pm
1A	The Villages to Leesburg	60 min	5:49am - 7:39pm
2	Leesburg Circulator	60 min	6:00am - 6:50pm
3	Mount Dora Circulator	60 min	6:38am - 7:31pm
4	Altoona to Zellwood	120 min	7:11am - 7:09pm
50	Mascotte to Winter Garden	60 min	5:30am - 9:00pm
55	Four Corners to U.S. Highway 192	30 min	6:00am - 8:58am 5:00pm - 9:58pm
South Lake Express	Clermont to Four Corners	60 min	6:00am - 8:54pm 5:00pm - 7:54pm

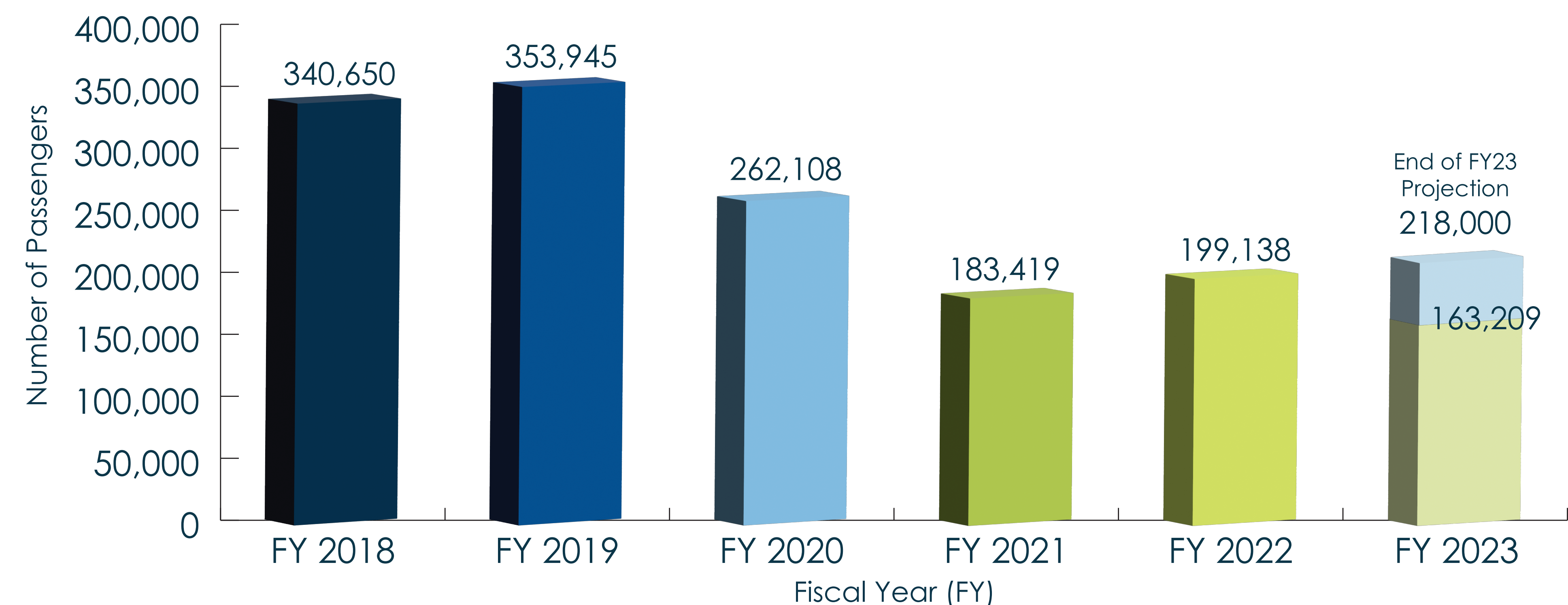
8 Fixed Routes

30 to 120 Minute Frequencies

199,138 Passenger Trips (2022)

\$5,500,000 Operating Expenses

Ridership Trends (2018-2023)



Lake County Transit Development Plan (TDP)

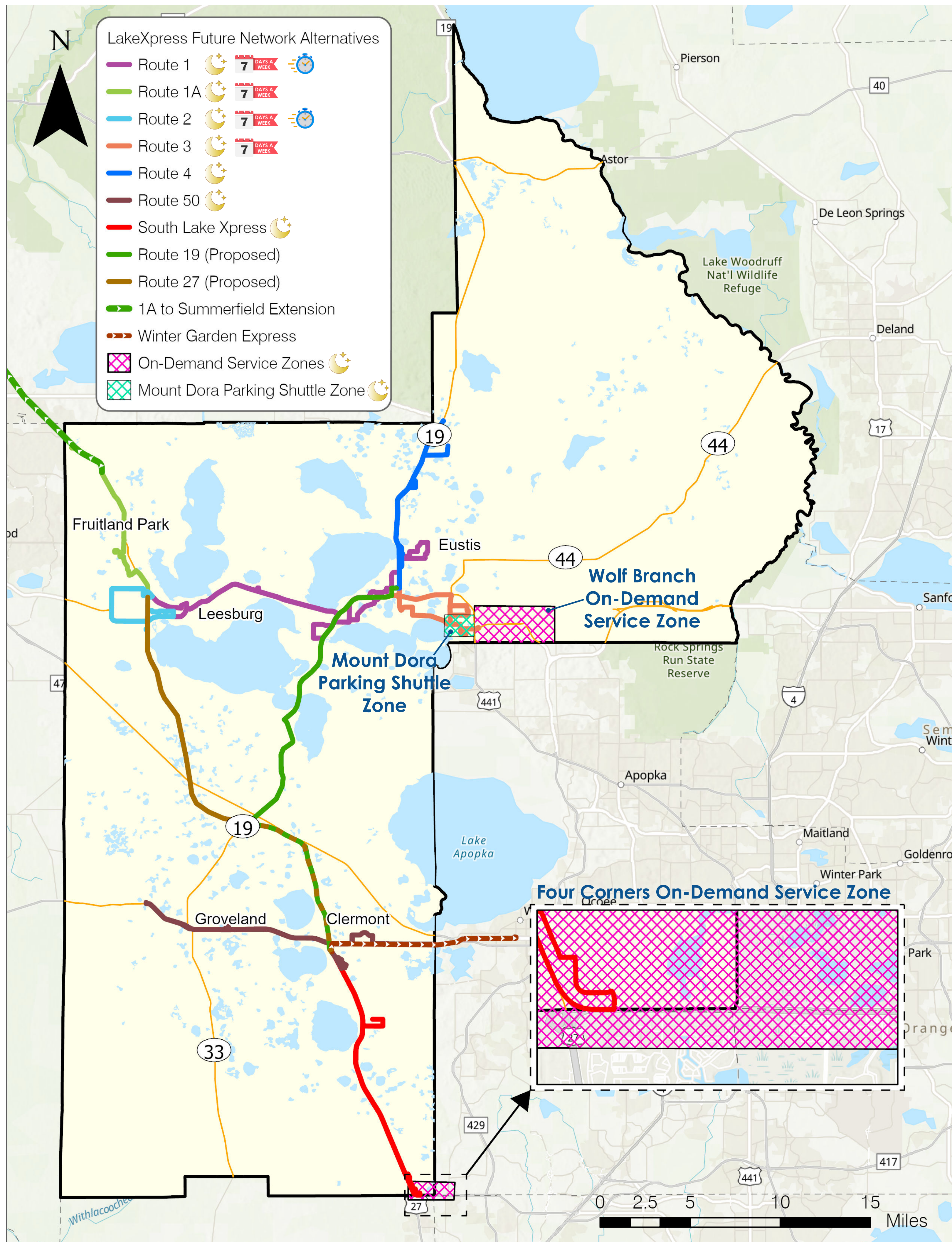


What Services Should LakeXpress Offer In the Future?

Directions: We need your input to prioritize improvements to existing services! Use the stickers to indicate which proposed improvements are most important to you.

Proposed Improvements

Place Stickers Here



Late Night Service

Extended service to end at 10:00 P.M. for all LakeXpress fixed-route services.

Weekend Service

Weekend service expansion for Routes 1, 1A, 2, and 3.

More Frequent Service

Higher frequency service for Routes 1 and 2.

Route 4 Modifications

Modify Route 4 to run north from the Mount Dora Walmart to Altoona.

Route 50 Modifications

Modify Route 50 to end at Lake-Orange County Line. Add an express service line to Winter Garden.

Extend Route 1A to Summerfield

Extend Route 1A 2 miles north into Marion County.

New Route 19 (Eustis to Clermont)

Weekday express service route along SR 19 from Ardice Transfer Center to Clermont Park-and-Ride.

New Route 27 (Leesburg to Clermont)

Weekday express service route along US 27 from Citizens Transfer Center to Clermont Park-and-Ride.

Wolf Branch On-Demand Service

Weekday on-demand service for the Wolf Branch Innovation District Region.

Route 55 Replaced with Four Corners On-Demand Service

Weekday on-demand service for the Four Corners Region.

Mount Dora Parking Shuttle

Friday and Weekend parking shuttle service for Downtown Mount Dora.

Lake County Transit Development Plan (TDP)



Lake County and LakeXpress, the County's transit service provider, need your help to identify public transportation service priorities for current and future Lake County residents and visitors as part of our 10-year major update to the Lake County Transit Development Plan (TDP).

Please complete the following survey to help the County and LakeXpress understand how they can better meet our community's public transportation needs over the next 10 years!

1. Please indicate how important the following potential improvements are to you.

Potential Service Improvement	Very Important	Fairly Important	Somewhat Unimportant	Not at all Important	No Opinion
Late Night Service  Extended service to end at 10:00 P.M. for all LakeXpress fixed-route services.	4	3	2	1	N/A
Weekend Service  Weekend service expansion for Routes 1, 1A, 2, and 3.	4	3	2	1	N/A
More Frequent Service  Higher frequency service for Routes 1 and 2.	4	3	2	1	N/A
Route 4 Modifications Modify Route 4 to run north from the Mount Dora Walmart to Altoona.	4	3	2	1	N/A
Route 50 Modifications Modify Route 50 to end at Lake-Orange County Line. Add an express service line to Winter Garden.	4	3	2	1	N/A
Extend Route 1A to Summerfield Extend Route 1A 2 miles north into Marion County.	4	3	2	1	N/A
New Route 19 (Eustis to Clermont) Weekday express service route along SR 19 from Ardice Transfer Center to Clermont Park-and-Ride.	4	3	2	1	N/A
New Route 27 (Leesburg to Clermont) Weekday express service route along US 27 from Citizens Transfer Center to Clermont Park-and-Ride.	4	3	2	1	N/A
Wolf Branch On-Demand Service Weekday on-demand service for the Wolf Branch Innovation District Region.	4	3	2	1	N/A
Route 55 Replaced with Four Corners On-Demand Service Weekday on-demand service for the Four Corners Region.	4	3	2	1	N/A
Mount Dora Parking Shuttle Friday and Weekend parking shuttle service for Downtown Mount Dora.	4	3	2	1	N/A

Lake County Transit Development Plan (TDP)



2. Are there any other improvements you'd like to see in *LakeXpress* transit services?

3. How often do you use *LakeXpress* transit services?

- Never
- Once a month or less
- Once a week
- More than once a week

4. Please provide any additional comments or feedback regarding *LakeXpress* services and/or the Transit Development Plan Major Update.



Lake County Transit (LakeXpress) Rider/Non-Rider Survey

Section A – All Respondents

1. How many months out of the year do you reside in Lake County?
 - a. Less than 6 months
 - b. More than 6 months but less than a year
 - c. I am a permanent resident

2. How old are you?
 - a. Under 18
 - b. 18 to 24
 - c. 25 to 40
 - d. 41 to 60
 - e. Over 60

3. What was the range of your total household income for 2022?
 - a. Under \$10,000
 - b. \$10,000 to \$19,999
 - c. \$20,000 to \$29,999
 - d. \$30,000 to \$39,999
 - e. \$40,000 to \$49,999
 - f. \$50,000 or more

4. What is your gender?
 - a. Male
 - b. Female
 - c. Prefer not to say

5. Are you of Hispanic, Latino, or Spanish origin?
 - a. Yes
 - b. No

6. What is your race? Please choose ONE.
 - a. American Indian or Alaska Native
 - b. Black/African American
 - c. White
 - d. Asian
 - e. Native Hawaiian or Other Pacific Islander
 - f. Two or more races
 - g. Other (specify): _____

7. What primary language do you speak at home? Please choose ONE.
 - a. English
 - b. Spanish



- c. Haitian Creole
- d. Portuguese
- e. French
- f. Chinese
- g. Other (specify): _____

8. Have you used LakeXpress (the bus) in the past six months? (*If yes=proceed to Section B. If no=Skip to Section C*)

Section B – Current/Recent Customers

9. How would you rate your bus service experience in the past year? Please choose ONE.

- a. Very Good
- b. Good
- c. Average
- d. Poor

10. What is the most common reason you use the bus? Please choose ONE.

- a. Work
- b. Social/Recreation/Entertainment
- c. Shopping/Errands
- d. Medical
- e. School/College
- f. Other (please specify): _____

11. How do you usually get to the bus? Please choose ONE.

- a. Walked/wheelchair. Blocks: _____
- b. Bicycled. Blocks: _____
- c. Drove and parked. Miles: _____
- d. Dropped off by friend, family, or neighbor
- e. Driven by someone who parked
- f. Other (please specify): _____

12. How often do you ride the bus? Please choose ONE.

- a. 4 or more days per week
- b. 2 to 3 days per week
- c. About 1 day per week
- d. Less than 1 day per week

13. Do you have a valid driver's license?

- a. Yes
- b. No

14. What is the most important reason you use the bus? Please choose ONE.

- a. I do not have a valid driver's license
- b. I do not have access to a car/vehicle



- c. I am unable to drive
 - d. Parking is too expensive and/or difficult
 - e. I prefer to use the bus
 - f. The bus is more convenient
 - g. The bus fits my budget better
 - h. The bus is safer and/or less stressful
 - i. Other (please specify): _____
15. If the bus were not available for your latest trip, how would you have traveled to your destination? Please choose ONE.
- a. Drive
 - b. Ride with someone
 - c. Bicycle
 - d. Taxi
 - e. I would not have made the trip
 - f. Other (please specify): _____
16. How many working cars/vehicles are at your home? Please choose ONE.
- a. 1
 - b. 2
 - c. 3 or more
 - d. None
17. How long have you been using LakeXpress bus service?
- a. 6 months or less
 - b. 7 months to 1 year
 - c. 1 to 2 years
 - d. 2 to 5 years
 - e. More than 5 years
18. What type of fare do you usually pay when you ride the LakeXpress bus? Please choose ONE.
- a. Single-ride fare (\$1.00)
 - b. Reduced single-ride fare (50¢)
 - c. 1-Day pass (\$3.00)
 - d. Reduced 1-day pass (\$1.50)
 - e. 10-ride pass (\$8.00)
 - f. Reduced 10-ride pass (\$4.00)
 - g. Unlimited 30-day pass (\$30.00)
 - h. Reduced unlimited 30-day pass (\$15.00)
 - i. Other (please specify): _____
19. What languages other than English do you speak at home? _____
20. How do you usually get information on LakeXpress bus service? Please choose ONE.
- a. Printed bus schedule



- b. Website trip planner tool
 - c. Website bus schedule
 - d. Google
 - e. Call LakeXpress
 - f. Bus drivers
 - g. Bus signs and/or shelters
 - h. Friend/relative
 - i. Other (please specify): _____
21. Do you use or own a cell phone? Please choose ONE.
- a. Yes; my cellphone has a data plan and/or Internet connectivity
 - b. Yes; my cellphone does NOT have a data plan and/or Internet connectivity
 - c. No
22. Do you have a personal bank account or credit card?
- a. Yes
 - b. No
23. What three service improvements would make LakeXpress better for you to use? Please choose THREE.
- a. More frequent service on existing routes
 - b. Service on Saturday or Sunday
 - c. Later evening service
 - d. New routes and/or service. Please describe: _____
 - e. Express service. Please describe: _____
 - f. Better connections to other counties. Please describe: _____
 - g. More amenities at bus stops. Please describe: _____
 - h. Better sidewalk connections to bus stops.
 - i. Other (please specify): _____



24. How satisfied are you with each of the following? Select a score for each characteristic.

	<i>Very satisfied</i>		<i>Neutral</i>		<i>Very unsatisfied</i>
	5	4	3	2	1
Real-time passenger information system					
Safety/security on buses and at bus stops					
Ease of bus ticket and/or pass purchase					
Vehicle and bus stop cleanliness and comfort					
Bus driver and other LakeXpress employee customer service					

THANK YOU FOR COMPLETING THE SURVEY! *(Current/recent customers will end survey here)*

Section C – Former or Never Customers

25. What do you use as your regular mode of transportation? Please choose ONE.

- a. I drive myself
- b. A friend, family member, neighbor, or someone else I know personally drives me
- c. Rideshare service (Lyft, Uber, or similar)
- d. Taxi
- e. Walk
- f. Bicycle
- g. Other (specify): _____

26. Have you ever used LakeXpress (the bus)?

- a. Yes; I used to be a regular bus user but have not used the bus in the past six months *(proceed to Q26)*
- b. Yes; I used to periodically use the bus but have not used the bus in the past six months *(proceed to Q26)*
- c. No; I have never used the bus *(skip to Q27)*

27. Why did you stop using the bus? Please choose UP TO THREE.

- a. I obtained a valid driver's license
- b. I obtained access to a car/vehicle



- c. I was previously unable to drive, but now can
 - d. I prefer to drive
 - e. I switched to using another form of transportation that is NOT a personal vehicle (driven by others, rideshare, taxi, walking, bicycling, etc)
 - f. The bus was no longer convenient
 - g. The bus no longer fit my budget
 - h. The bus no longer felt safe
 - i. Other (please specify): _____
28. What improvements to LakeXpress would convince you to use the bus? Please choose UP TO THREE.
- a. More frequent service on existing routes
 - b. Service on Saturday or Sunday
 - c. Later evening service
 - d. New routes and/or service. Please describe: _____
 - e. Express service. Please describe: _____
 - f. Better connections to other counties. Please describe: _____
 - g. More amenities at bus stops. Please describe: _____
 - h. Better sidewalk connections to bus stops.
 - i. I would NEVER use the bus
 - j. Other (please specify): _____

THANK YOU FOR COMPLETING THE SURVEY!



Encuesta de Pasajeros/No Pasajeros de Lake County Transit (LakeXpress)

1. ¿Cuántos meses al año eres residente del condado de Lake?
 - a. Sección A – Todos los encuestados
 - b. Menos de 6 meses
 - c. Más de 6 meses pero menos de un año
 - d. Soy residente permanente

2. ¿Cuántos años tienes?
 - a. Menor de 18 años
 - b. 18 a 24
 - c. De 25 a 40
 - d. 41 a 60
 - e. Mayor de 60 años

3. ¿Cuál fue el rango de ingresos totales de tu hogar en 2022?
 - a. Menos de \$10,000
 - b. \$10,000 a \$19,999
 - c. \$20,000 hasta \$29,999
 - d. \$30,000 a \$39,999
 - e. \$40,000 a \$49,999
 - f. \$50,000 o más

4. ¿Cuál es tu género?
 - a. Masculino
 - b. Hembra
 - c. Prefiero no decir

5. ¿Eres de origen hispano, latino o español?
 - a. Sí
 - b. No

6. ¿Cuál es tu raza? Por favor, elige UNO.
 - a. Indio americano o nativo de Alaska
 - b. Negro/Afroamericano
 - c. Blanco
 - d. Asiático
 - e. Nativo de Hawái u otro isleño del Pacífico
 - f. Dos o más razas
 - g. Otra razón (especificar): _____



7. ¿Qué idioma principal hablas en casa? Por favor, elige UNO.
- a. Inglés
 - b. Español
 - c. Criollo Haitiano
 - d. Portugués
 - e. Francés
 - f. Chino
 - g. Otra razón (especificar): _____
8. ¿Has usado LakeXpress (el autobús) en los últimos seis meses? *(En caso afirmativo=proceda a la sección B. Si no=Salta a la Sección C)*

Sección B – Clientes actuales/recientes

9. ¿Cómo calificaría su experiencia de servicio de autobús en el último año? Por favor, elige UNO.
- a. Muy buena
 - b. Buena
 - c. Regular
 - d. Pobre
10. ¿Cuál es la razón más común por la que usas el autobús? Por favor, elige UNO.
- a. Trabajo
 - b. Social/Recreación/Entretenimiento
 - c. Compras/Recados
 - d. Médica
 - e. Escuela/Colegio
 - f. Otra razón (especifíquese): _____
12. ¿Cómo sueles llegar al autobús? Por favor, elige UNO.
- a. Caminado/silla de ruedas. Bloques: _____
 - b. Bicicleta. Bloques: _____
 - c. Conducir y estacionar. Millas: _____
 - d. Dejado por un amigo, familia o vecino
 - e. Conducido por alguien que estacionó
 - f. Otra razón (especifíquese): _____
13. ¿Con qué frecuencia viajas en autobús? Por favor, elige UNO.
- a. 4 o más días por semana
 - b. 2 a 3 días por semana
 - c. Alrededor de 1 día por semana
 - d. Menos de 1 día a la semana
14. ¿Tiene una licencia de conducir válida?
- a. Sí
 - b. No



15. ¿Cuál es la razón más importante por la que usas el autobús? Por favor, elige UNO.
- a. No tengo una licencia de conducir válida
 - b. No tengo acceso a un coche/vehículo
 - c. No puedo conducir
 - d. El estacionamiento es demasiado caro y / o difícil
 - e. Prefiero usar el autobús
 - f. El autobús es más conveniente
 - g. El autobús se ajusta mejor a mi presupuesto
 - h. El autobús es más seguro y/o menos estresante
 - i. Otra razón (especifíquese): _____
16. Si el autobús no estuviera disponible para su último viaje, ¿cómo habrías viajado a su destino? Por favor, elige UNO.
- a. Conducir
 - b. Viaja con alguien
 - c. Bicicleta
 - d. Taxi
 - e. No hubiera hecho el viaje
 - f. Otros (especifíquese): _____
17. ¿Cuántos coches/vehículos de trabajo hay en tu casa? Por favor, elija UNO.
- a. 1
 - b. 2
 - c. 3 o más
 - d. Ninguno
18. ¿Cuánto tiempo llevas usando el servicio de autobuses de LakeXpress?
- a. 6 meses o menos
 - b. 7 meses a 1 año
 - c. 1 a 2 años
 - d. 2 a 5 años
 - e. Más de 5 años
19. ¿Qué tipo de tarifa sueles pagar cuando viajas en el autobús LakeXpress? Por favor, elige UNO.
- a. Tarifa de viaje sencillo (\$1.00)
 - b. Tarifa reducida de viaje sencillo (50¢)
 - c. Pase de 1 día (\$3.00)
 - d. Pase reducido de 1 día (\$1.50)
 - e. Pase de 10 viajes (\$8.00)
 - f. Pase reducido de 10 viajes (\$4.00)
 - g. Pase ilimitado de 30 días (\$30.00)
 - h. Pase reducido ilimitado de 30 días (\$15.00)
 - i. Otra razón (especifíquese): _____



20. ¿Cómo sueles obtener información sobre el servicio de autobús LakeXpress? Por favor, elige UNO.

- a. Horario de autobuses impresos
- b. Herramienta de planificación de viajes del sitio web
- c. Horarios de autobuses del sitio web
- d. Google (en inglés)
- e. Llame a LakeXpress
- f. Conductores de autobús
- g. Señales y/o marquesinas de autobuses
- h. Amigo/pariente
- i. Otra razón (especifíquese): _____

21. ¿Usa o posee un teléfono celular? Por favor, elige UNO.

- a. Sí; mi teléfono celular tiene un plan de datos y/o conectividad al Internet
- b. Sí; mi teléfono celular NO tiene un plan de datos y/o conectividad al Internet
- c. No

22. ¿Tiene una cuenta bancaria personal o tarjeta de crédito?

- a. Sí
- b. No

23. ¿Qué tres mejoras de servicio harían que LakeXpress fuera mejor para tu uso? Por favor, elige TRES.

- a. Servicio más frecuente en las rutas existentes
- b. Servicio los sábados o domingos
- c. Servicio nocturno más tarde
- d. Nuevas rutas y/o servicio. Por favor describe: _____
- e. Servicio exprés. Por favor describe: _____
- f. Mejores conexiones con otros condados. Por favor describe: _____
- g. Más comodidades en las paradas de autobús. Por favor describe: _____
- h. Mejores conexiones en las aceras a las paradas de autobús.
- i. Otra razón (especifíquese): _____

24. ¿Qué tan satisfecho está con cada uno de los siguientes? Seleccione una puntuación para cada característica.

	<i>Muy satisfecho</i>		<i>Neutral</i>		<i>Muy insatisfecho</i>
	5	4	3	2	1
Sistema de información en tiempo real para el pasajero					
Seguridad en autobuses y paradas					



Facilidad de compra de boletos de autobús y / o pases					
Limpieza y comodidad de las paradas de vehículos y autobuses					
Conductor de autobús y otro empleado de LakeXpress servicio al cliente					

¡GRACIAS POR COMPLETAR LA ENCUESTA! (Actual y/o clientes recientes terminarán la encuesta aquí)

Sección C – Clientes pasados o nunca clientes

1. ¿Qué utilizas como tu medio de transporte habitual? Por favor, elige UNO.
 - a. Conduzco yo mismo
 - b. Un amigo, familiar, vecino u otra persona que conozco personalmente me transporta
 - c. Servicio de viaje compartido (Lyft, Uber o similar)
 - d. Taxi
 - e. Caminar
 - f. Bicicleta
 - g. Otra razón (especificar): _____

2. ¿Alguna vez has usado LakeXpress (el autobús)?
 - a. Sí; Solía ser un usuario habitual del autobús, pero no he usado el autobús en los últimos seis meses (*proceda a Q26*)
 - b. Sí; Solía usar periódicamente el autobús, pero no he usado el autobús en los últimos seis meses (*proceda a Q26*)
 - c. No; Nunca he usado el autobús (*salta a Q27*)

3. ¿Por qué dejaste de usar el autobús? Por favor, elige HASTA TRES.
 - a. Obtuve una licencia de conducir válida
 - b. Obtuve acceso a un coche/vehículo
 - c. Anteriormente no podía conducir, pero ahora puedo
 - d. Prefiero conducir
 - e. Cambié a usar otra forma de transporte que NO es un vehículo personal (conducido por otros, viaje compartido, taxi, caminar, andar en bicicleta, etc.)
 - f. El autobús ya no era conveniente
 - g. El autobús ya no se ajusta a mi presupuesto
 - h. El autobús ya no se sentía seguro
 - i. Otra razón (especifíquese): _____



1. ¿Qué mejoras a LakeXpress lo convencerían de usar el autobús? Por favor, elige HASTA TRES.
 - a. Servicio más frecuente en las rutas existentes
 - b. Servicio los sábados o domingos
 - c. Servicio nocturno más tarde
 - d. Nuevas rutas y/o servicio. Por favor describir: _____
 - e. Servicio exprés. Por favor describe: _____
 - f. Mejores conexiones con otros condados. Por favor describe: _____
 - g. Más comodidades en las paradas de autobús. Por favor describe: _____
 - h. Mejores conexiones en las aceras a las paradas de autobús.
 - i. NUNCA usaría el autobús
 - j. Otros (especifíquese): _____

¡GRACIAS POR COMPLETAR LA ENCUESTA! *(Los clientes pasados / los que nunca han sido clientes terminarán la encuesta aquí)*



Appendix C

Survey Results



Demographic Questions

Figure C-1: Race

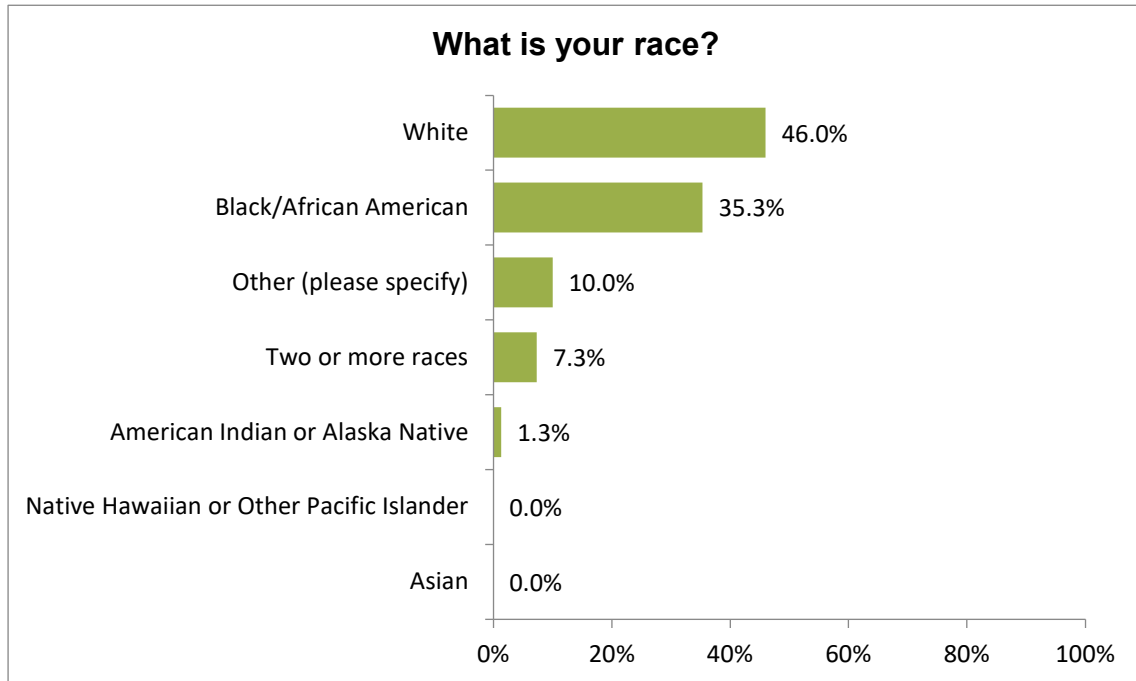


Figure C-2: Age

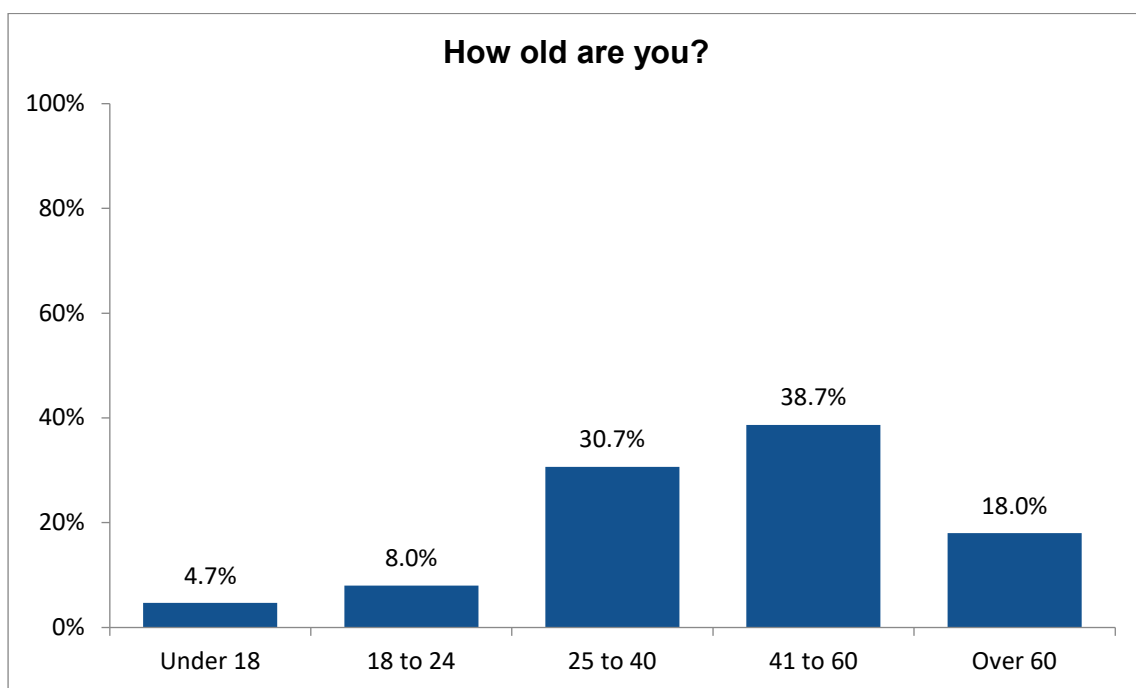




Figure C-3: Household Income

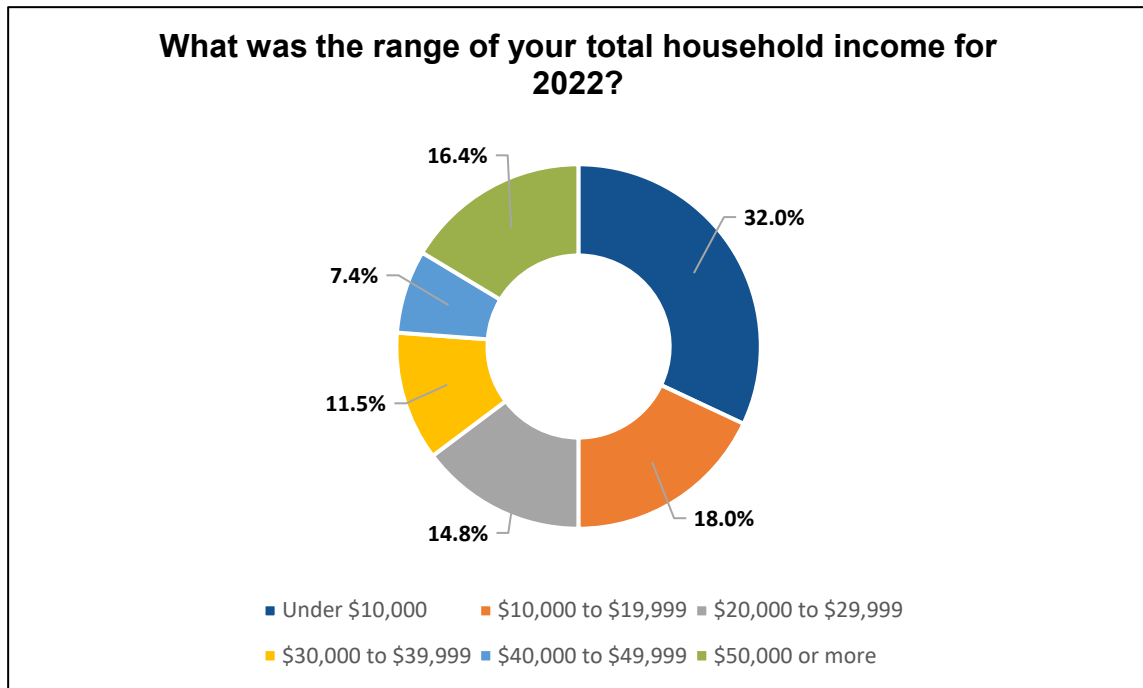


Figure C-4: Gender

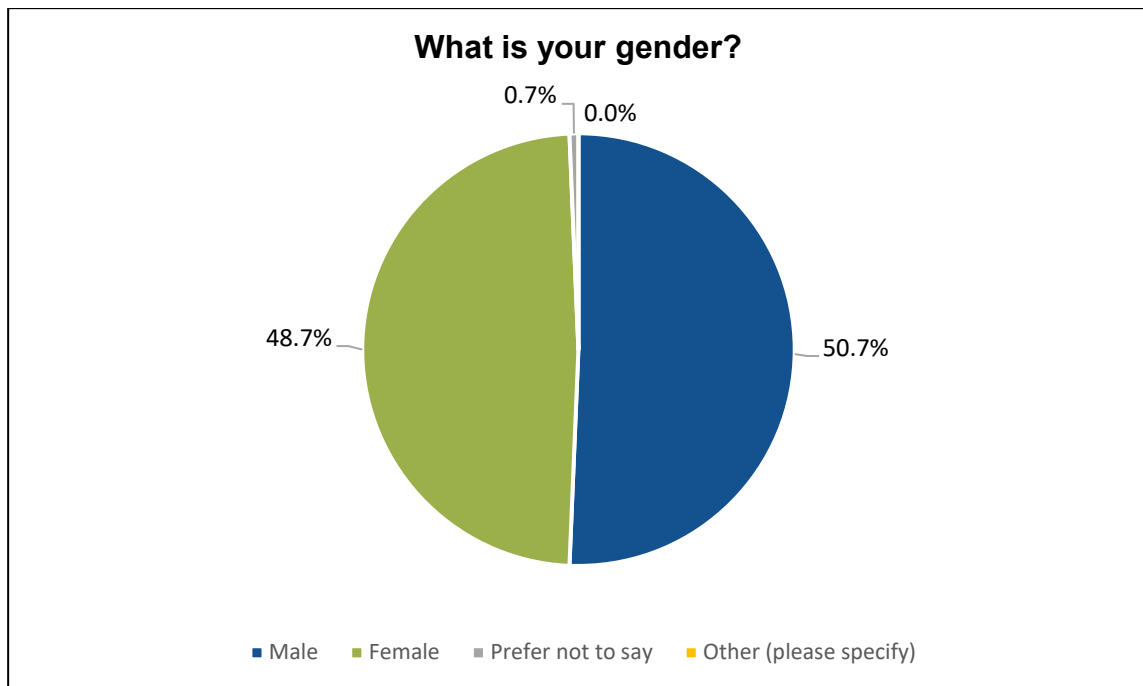
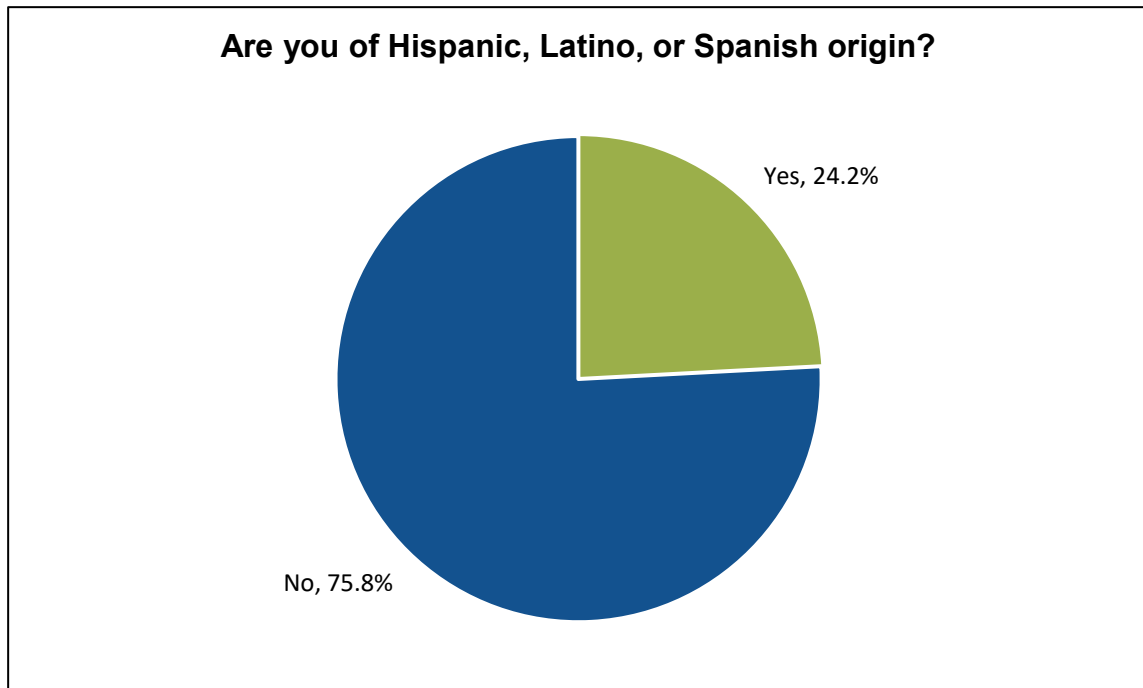




Figure C-5: Hispanic Origin



Customer Profile

Figure C-6: Purpose for Bus Use

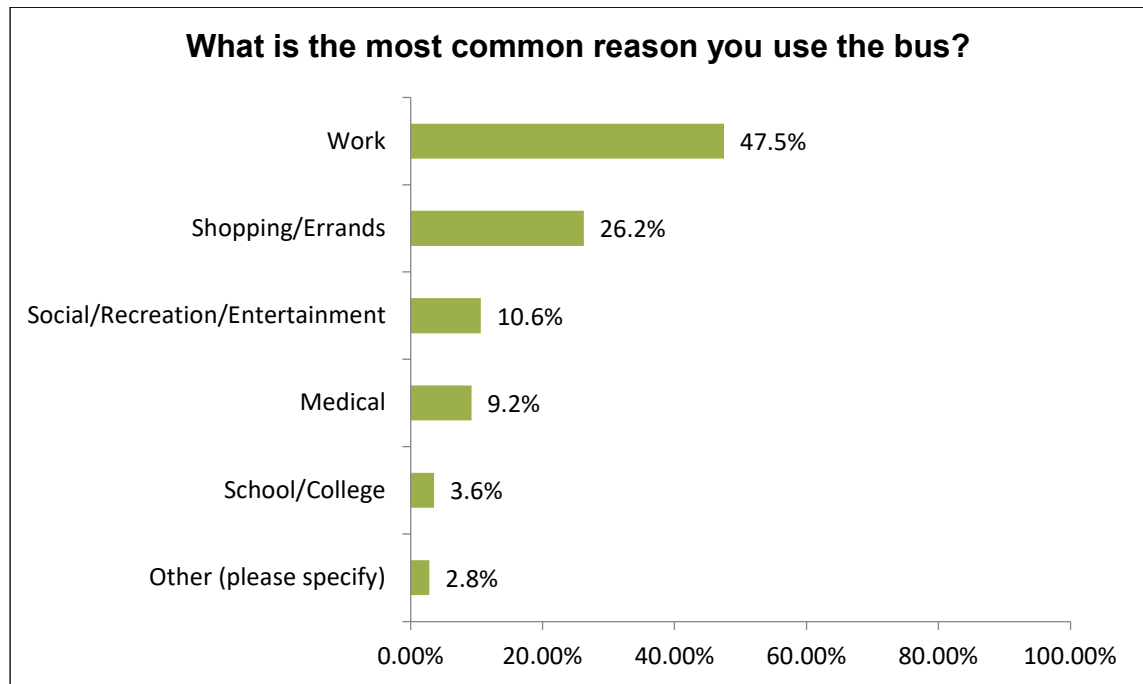




Figure C-7: Frequency of use of LakeXpress Service

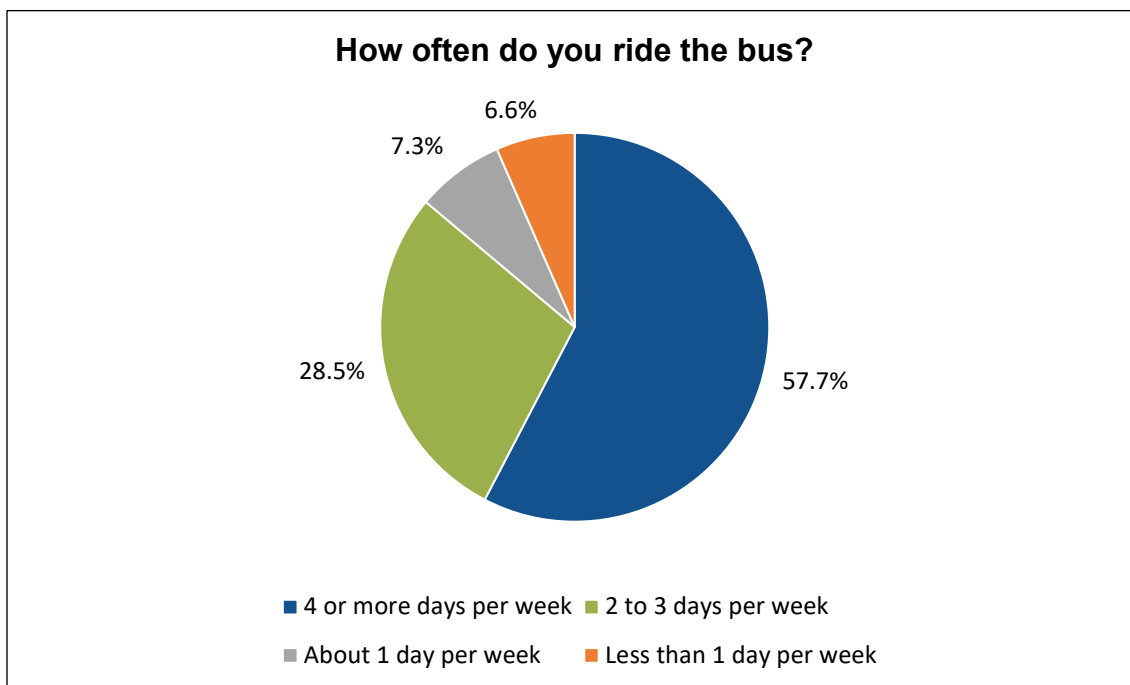


Figure C-8: Customer Service Access

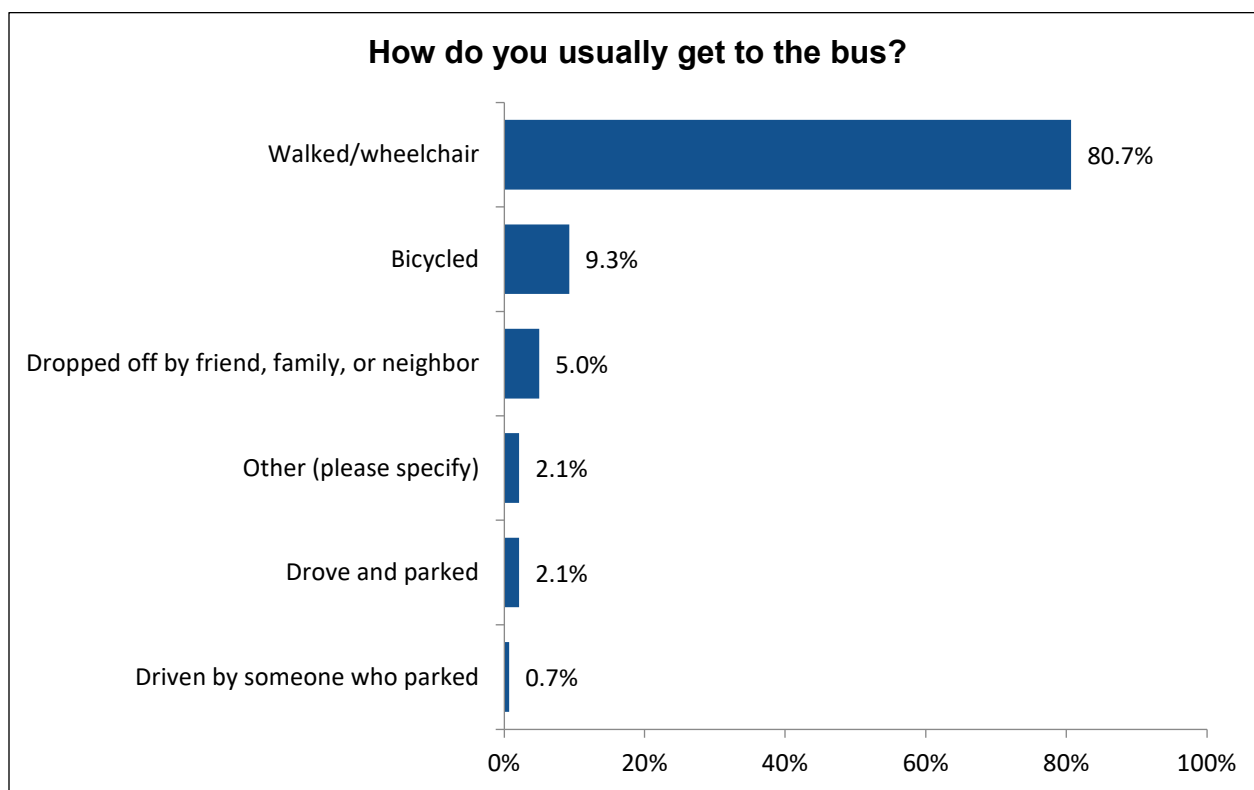




Figure C-9: Customer Transportation Alternatives



Figure C-10: Recent LakeXpress Use

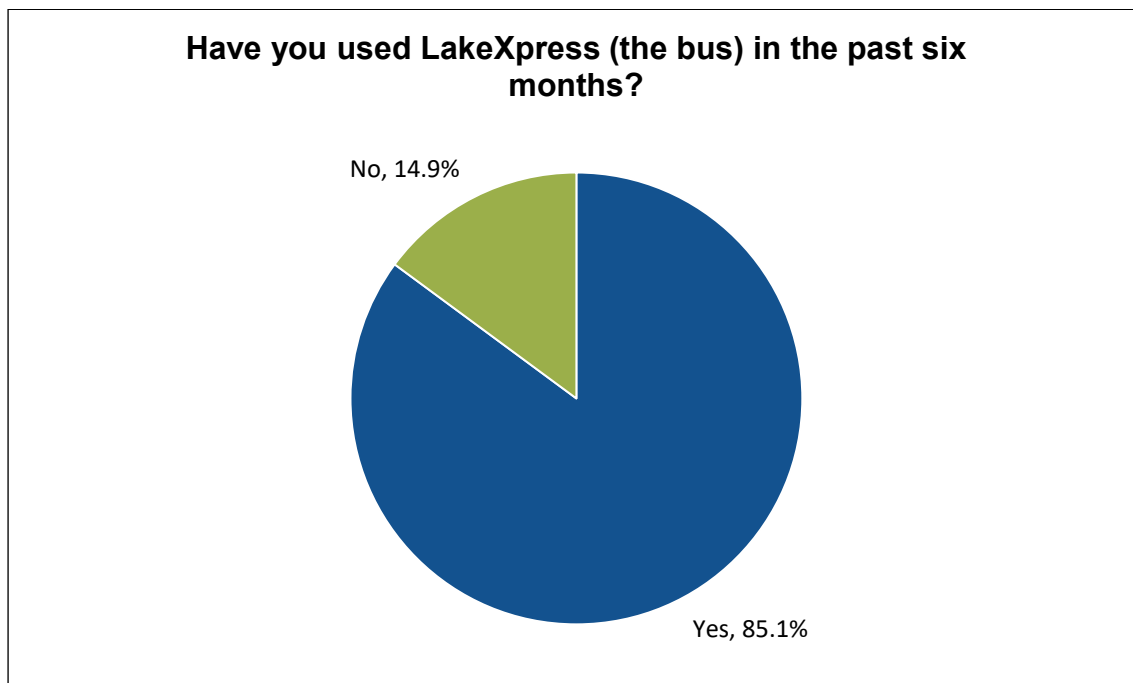




Figure C-11: Customer Bus Use

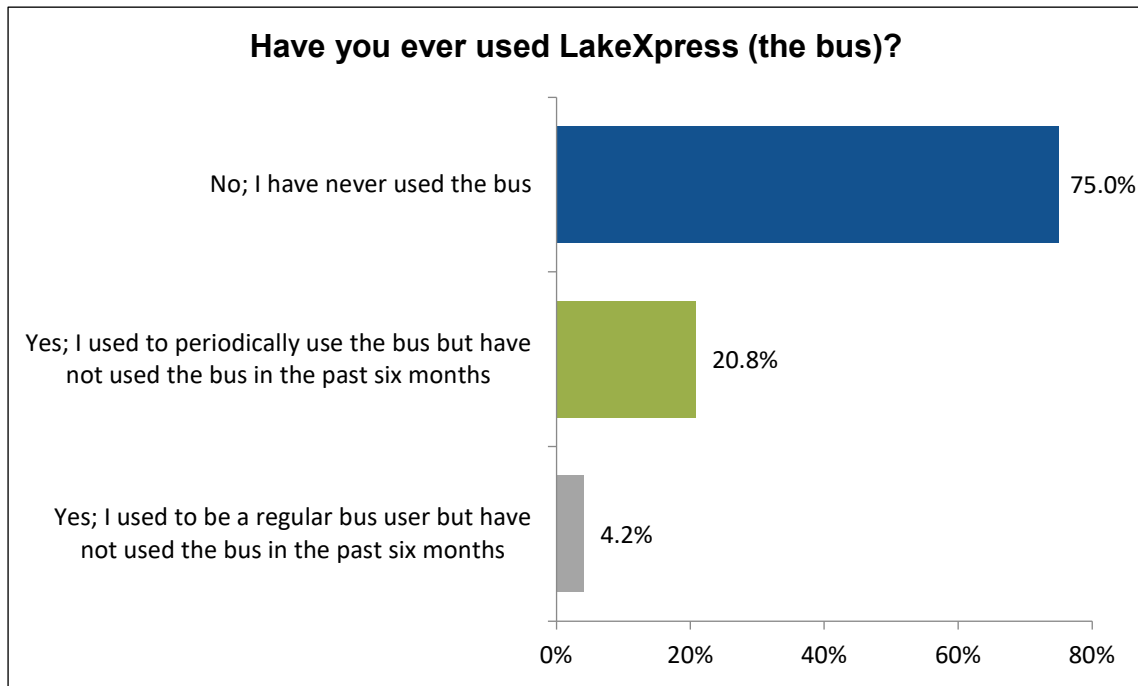


Figure C-12: Reason for stopping the use of LakeXpress service

An additional question was asked of respondents who indicated they were former LakeXpress customers. These customers were asked to identify the primary reason they stopped using the LakeXpress service.

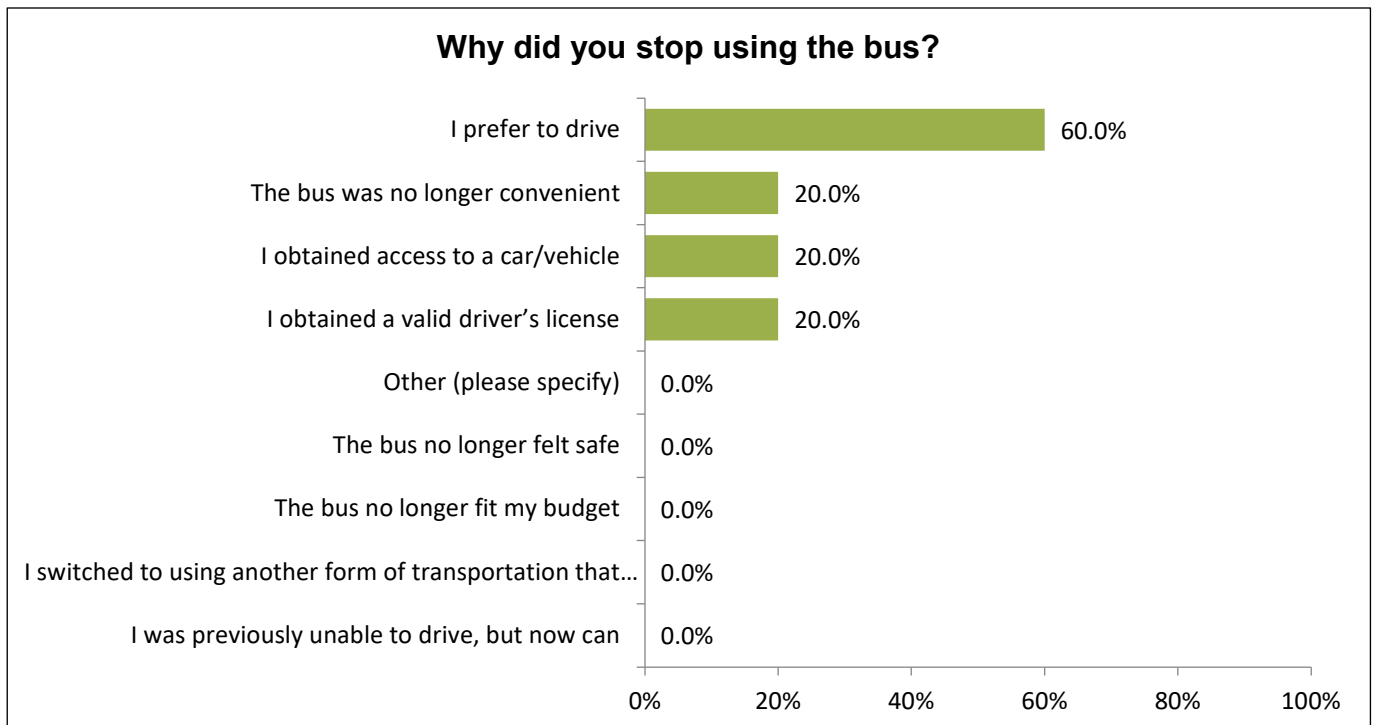




Figure C-13: Driver License

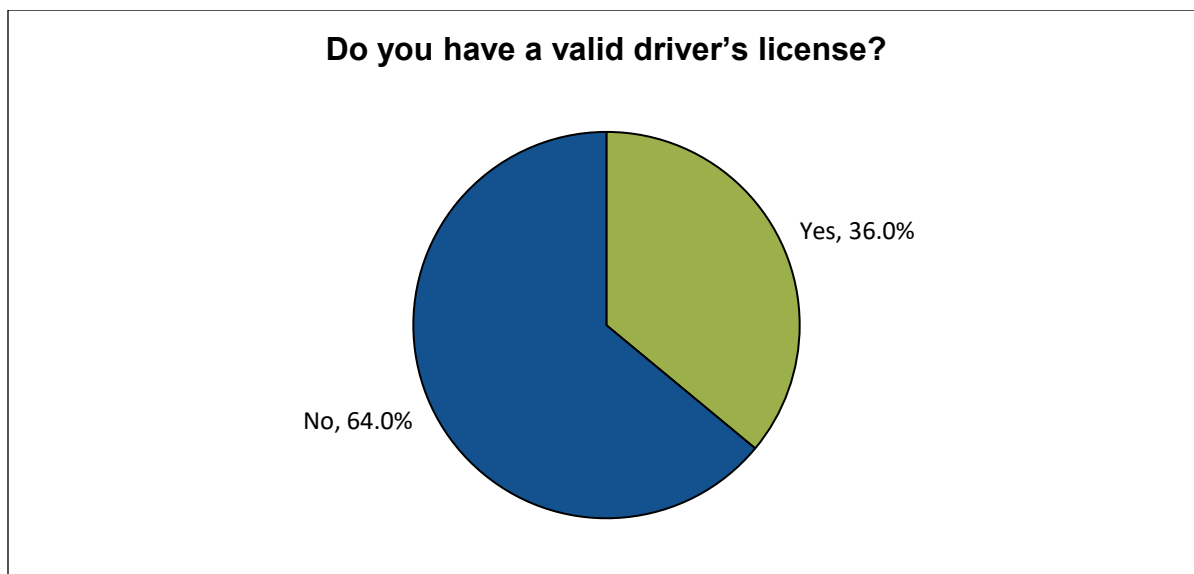


Figure C-14: Customer Service History

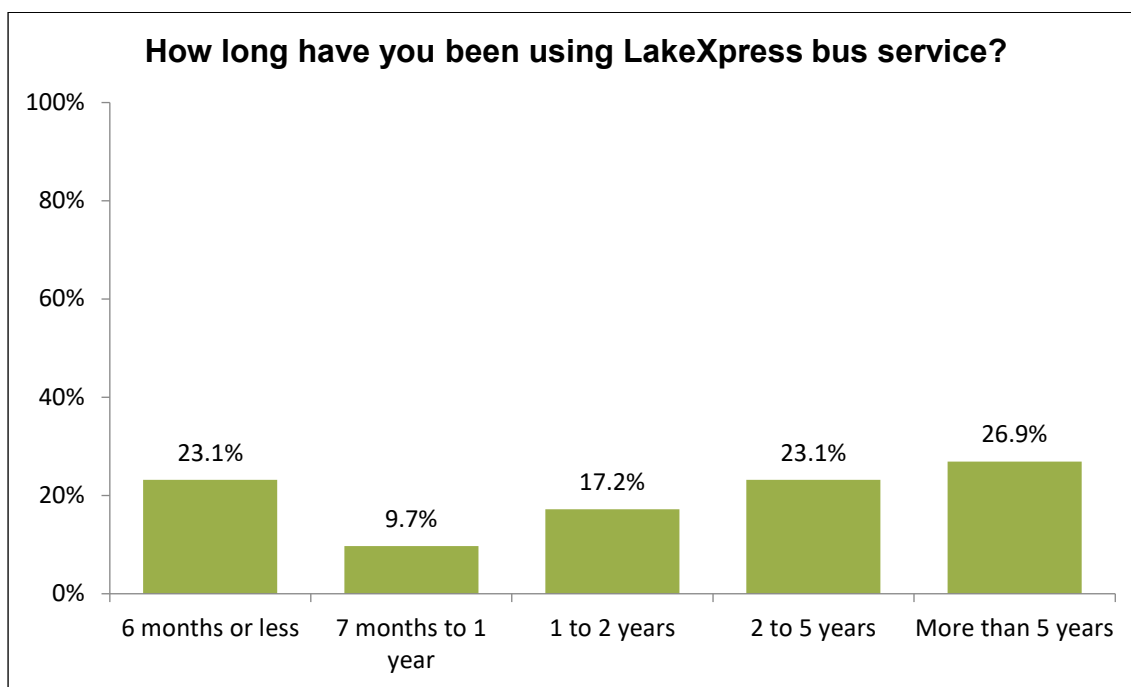




Figure C-15: Service Payment

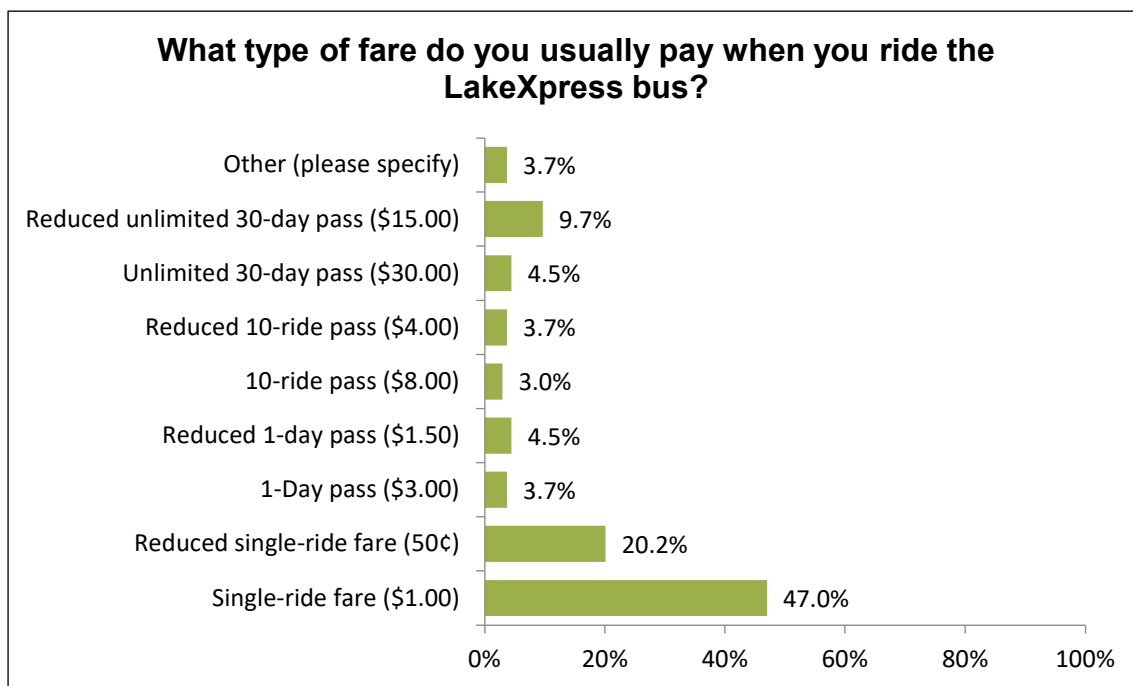


Figure C-16: At Home Transportation

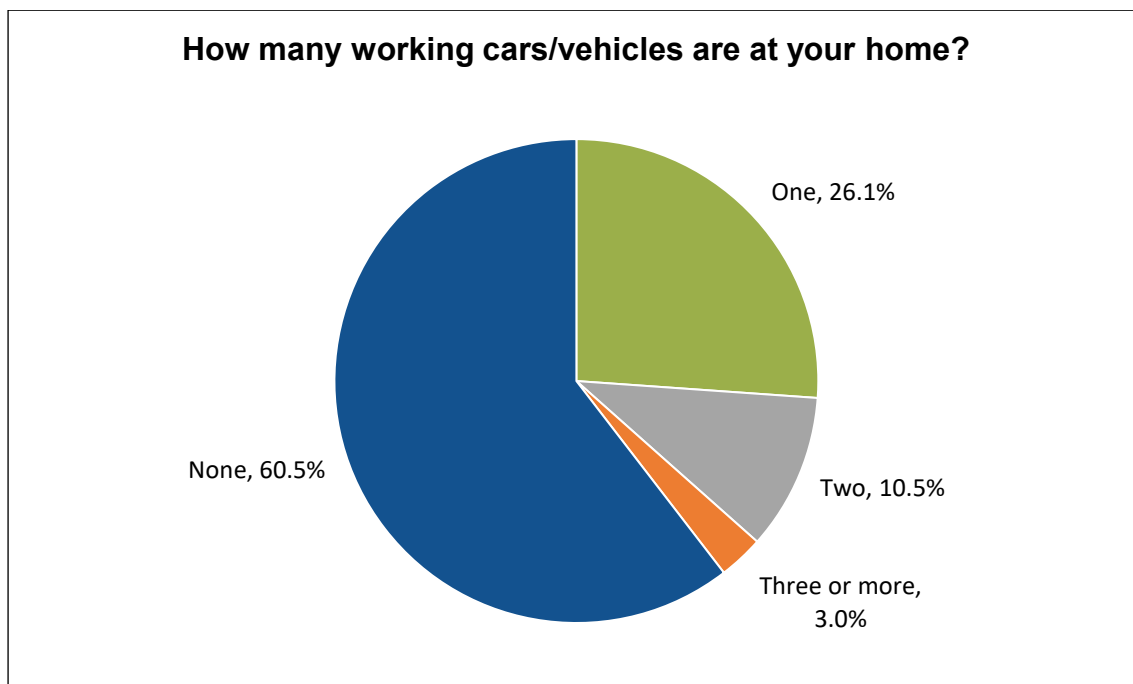




Figure C-17: Service Information

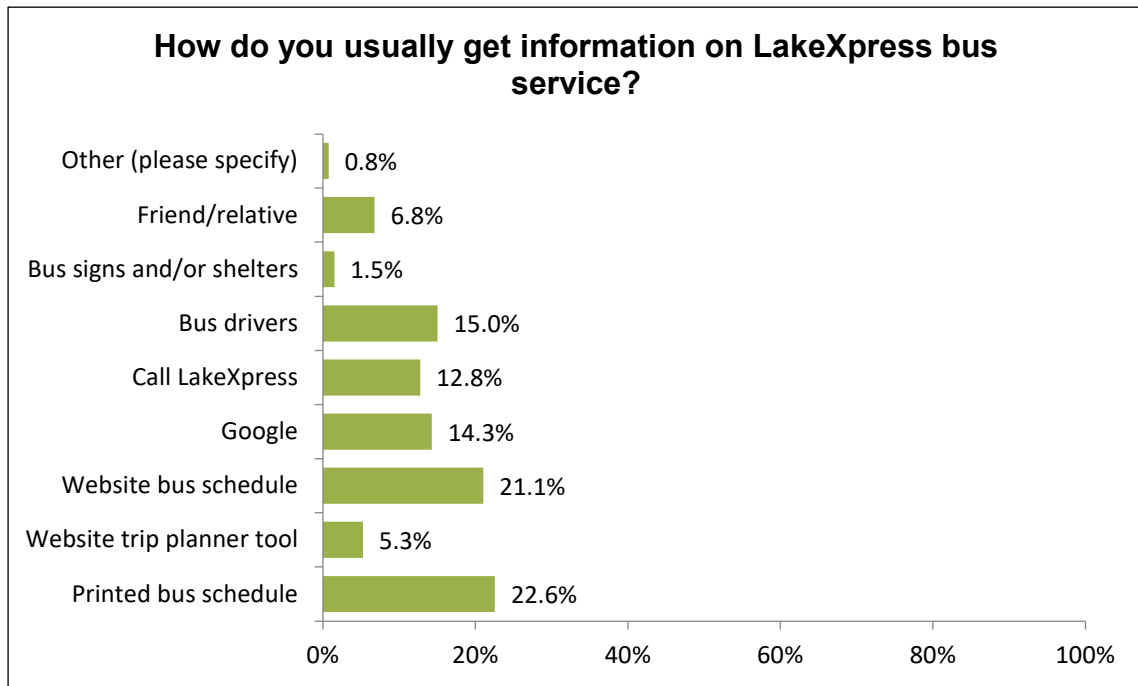


Figure C-18: Cell Phone Service

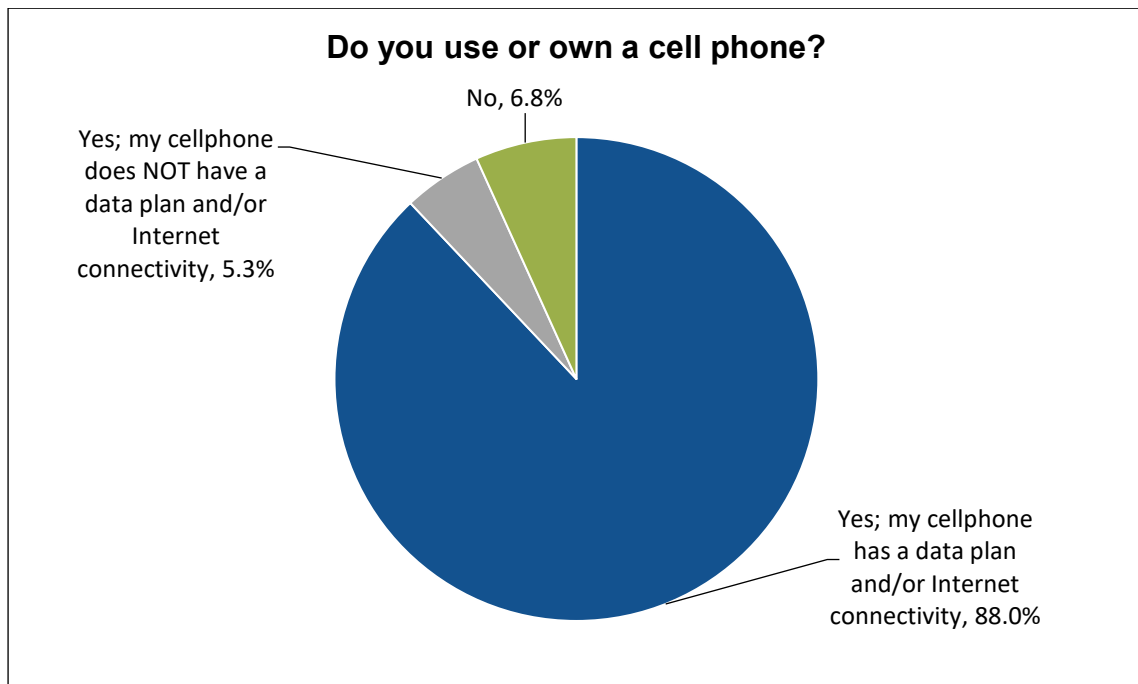
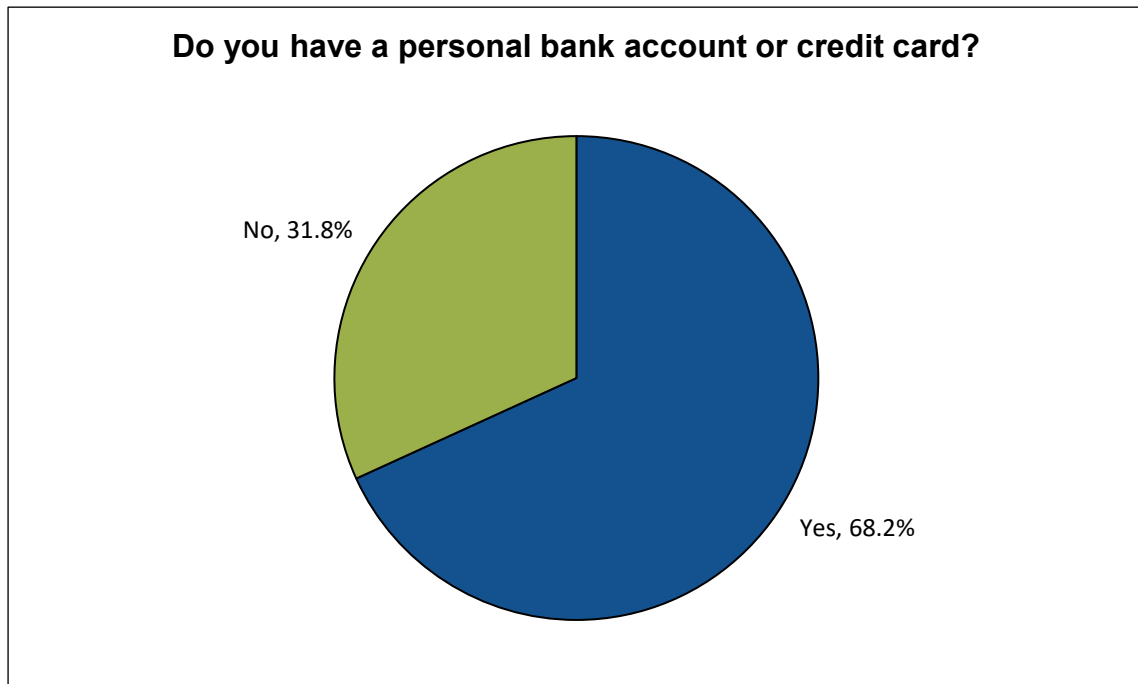




Figure C-19: Financial Information



Customer Experience

Figure C-20: Bus Service Experience

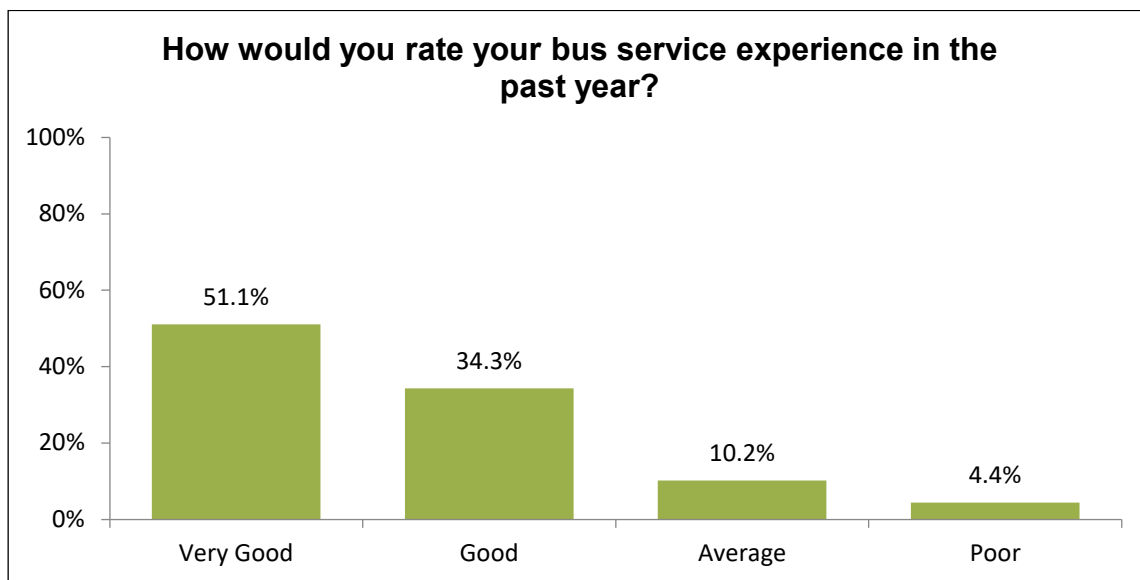
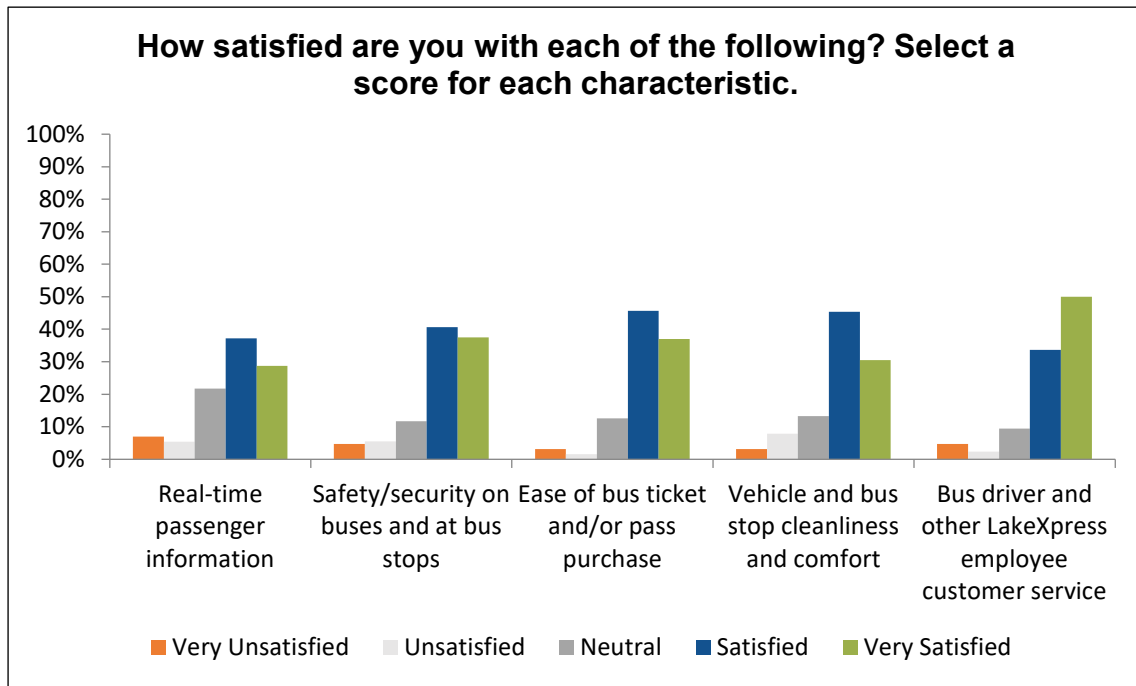


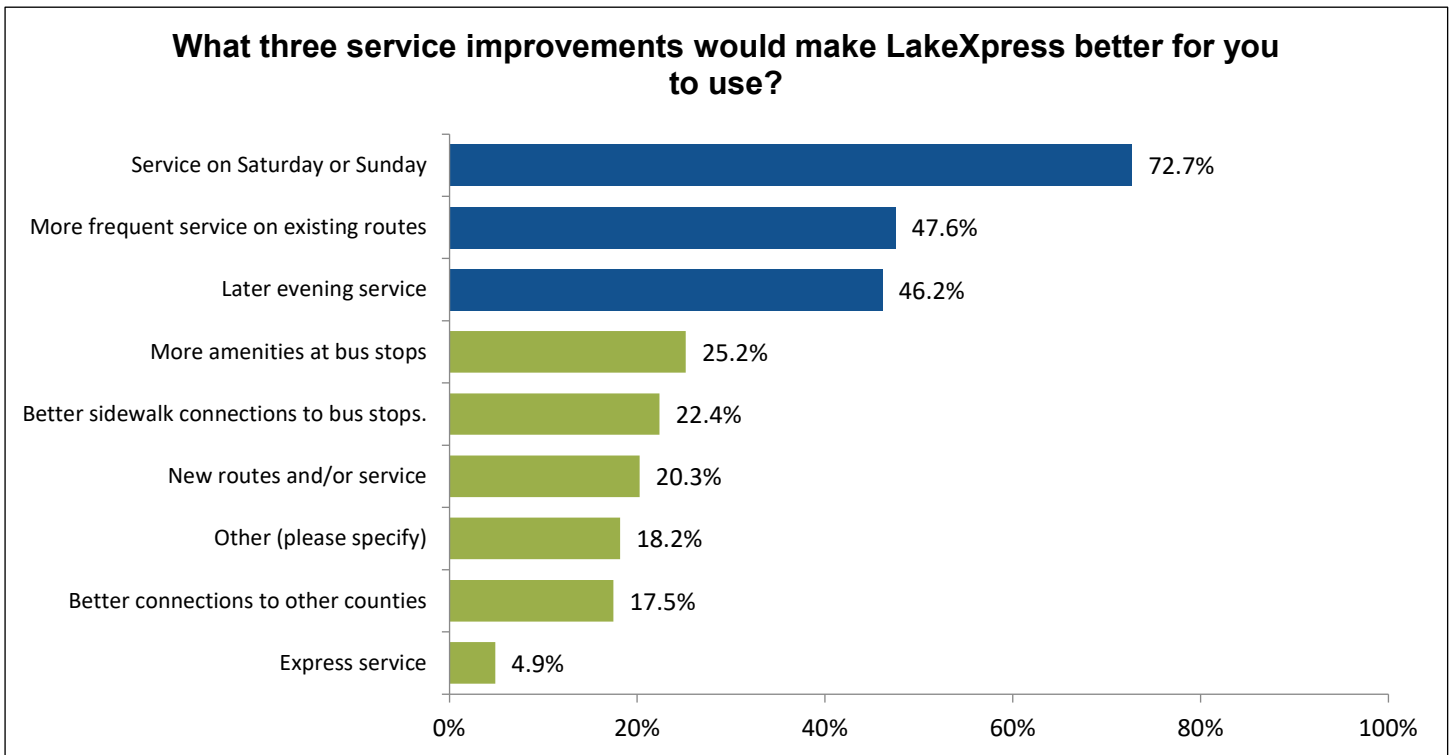


Figure C-21: Service Satisfaction



Service Alternatives

Figure C-22: Service Improvements





Appendix D

Performance Monitoring Program



Performance Monitoring Program

DEVELOPMENT AND APPLICATION OF PERFORMANCE STANDARDS

The development and application of performance standards for public transportation services enable an evaluation of various routes to determine which services require expansion, modification, or discontinuance. The process for developing performance standards and key performance indicators (KPI) generally includes the following steps:

1. Data collection and analysis
2. Identification of KPIs
3. Development of KPI Benchmarks, Standards, and Policies
4. Monitoring KPI changes, identifying and documenting causes, and making service adjustments as appropriate

Using available data from existing LakeXpress services, the above process is used to create an approach for evaluating all fixed-route services offered by the agency. This process also allows identifying specific routes and services that may require intervention. Before applying performance standards, reviewing the service routes offered within the LakeXpress system network is important. As described further below, this step is vital for evaluating service performance.

PERFORMANCE STANDARDS

The data collected and used in this process includes FY 2022 ridership and revenue hours. Using these two metrics, the Passengers per Revenue Hour measure was developed, reflecting the ridership productivity of each route. Identified as the key performance indicator for the LakeXpress service, the Passengers per Revenue Hour measure is used to evaluate the performance of each route by calculating an average Passenger per Revenue Hour figure for the entire system. That average provides a benchmark for comparison for all system services. By comparing the key performance indicators for each route against the system-wide KPIs, routes that fall above or below the given average can be quickly identified. It is important to note that not all routes that differ from the KPI average require modification or enhancement. This evaluation is intended to be used as a guideline and to identify routes that may require modification or enhancement. Consequently, routes that fall below the average KPI should not be immediately deemed as underperforming without further inquiry. This is particularly true for routes with KPIs that fall near the average measure or that perhaps have recently been implemented. It is recommended that only those routes that fall below or above a specific percentage of the average KPI be included for further evaluation.

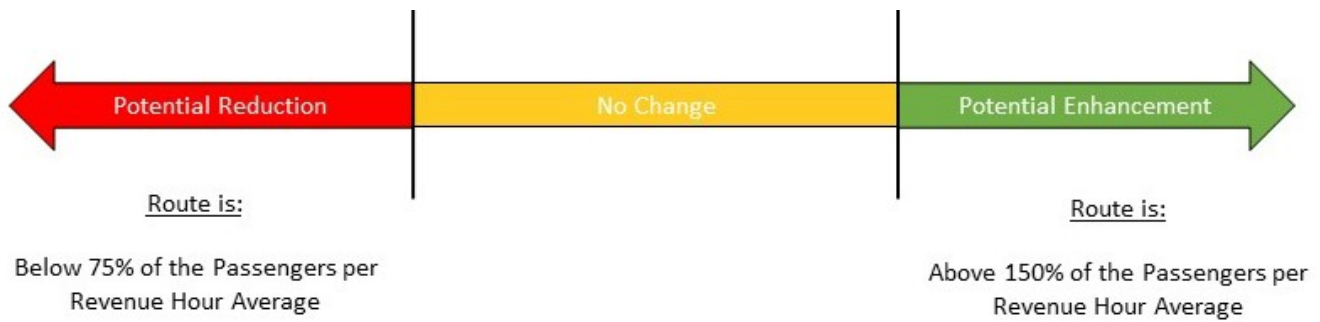
To identify routes for potential service enhancements or reductions, percentage thresholds were defined for the Passengers per Revenue Hour measure. The threshold standards are defined as the following:

- Routes that fall below the 75 percent threshold for Passengers per Revenue Hour are identified for potential service reductions (i.e., shorter service span, route realignment, reduction in service days).
- Routes that fall above the 150 percent threshold for Passengers per Revenue Hour are identified for potential service enhancement (i.e., later service, enhanced frequency, additional weekend service).

Figure D-1 illustrates the evaluation framework.



Figure D-1: Performance Evaluation Framework



LAKEXPRESS ROUTE SERVICE PERFORMANCE

The following section provides the operating characteristics of each LakeXpress route and a summary of their recent performance for FY 22. Passenger per revenue hour thresholds applied in this evaluation include the following:

- System-wide average passenger trips per revenue hour is 5.9.
- 75 percent of the system-wide average is 4.1.
- 150 percent of the system-wide average is 8.8.

Based on the performance evaluation framework, Route 2 would be a candidate for potential enhancement. Route 55 and the South Lake Express are candidates for additional review, given that their performance is lower than 75 percent of the system-wide average passenger revenue per hour. Table D-1, includes the supporting data, KPI averages, and thresholds for each service route.

Table D-1: FY 22 Service Performance

Route #	Route Name	Frequency	Monday-Friday	FY 2023 Revenue Hours	FY 2023 Ridership	FY 2023 Trips Per Revenue Hour	% of the Average
1	Leesburg to Eustis	60 min	6:00 AM–7:50 PM	7,532	48,640	6.46	110%
1A	The Villages to Leesburg	60 min	5:49 AM–7:39 PM	5,247	32,096	6.12	104%
2	Leesburg Circulator	60 min	6:00 AM–6:50 PM	2,460	25,610	10.41	177%
3	Mount Dora Circulator	60 min	6:38 AM–7:31 PM	2,472	14,588	5.9	100%
4	Altoona to Zellwood	120 min	7:11 AM–7:09 PM	2,298	11,024	4.8	81%
50	Mascotte to Winter Garden	60 min	5:30 AM–9:00 PM	5,699	26,774	4.7	80%
55	Four Corners to U.S. Highway 192	30 min	6:00 AM-8:58 AM 5:00 PM-9:58 PM	1,135	4,158	3.66	62%
South Lake Express	Clermont to Four Corners	60 min	6:00 AM-8:24 AM 5:00 PM-7:24 PM	829	319	0.38	6%



Appendix E

On-Demand Service Ridership Estimation

On-Demand Service Ridership Estimation Methodology

INTRODUCTION

On-demand services (also referred to as microtransit) encompass a variety of transportation solutions that may operate in concert with or as a replacement for fixed-route transit services. These services typically operate within a defined service area (on-demand zone), where riders must start and end their trip. On-demand service is often utilized as a first/last-mile connection to fixed-route transit or as a replacement for fixed-route transit in some operating environments. Riders typically schedule their trips half a day to a day in advance or sometimes utilize smartphone mobile apps to request, pay for, and track their ride. On-demand transit may operate as a "door-to-door" service, with passengers being taken to locations within the service area.

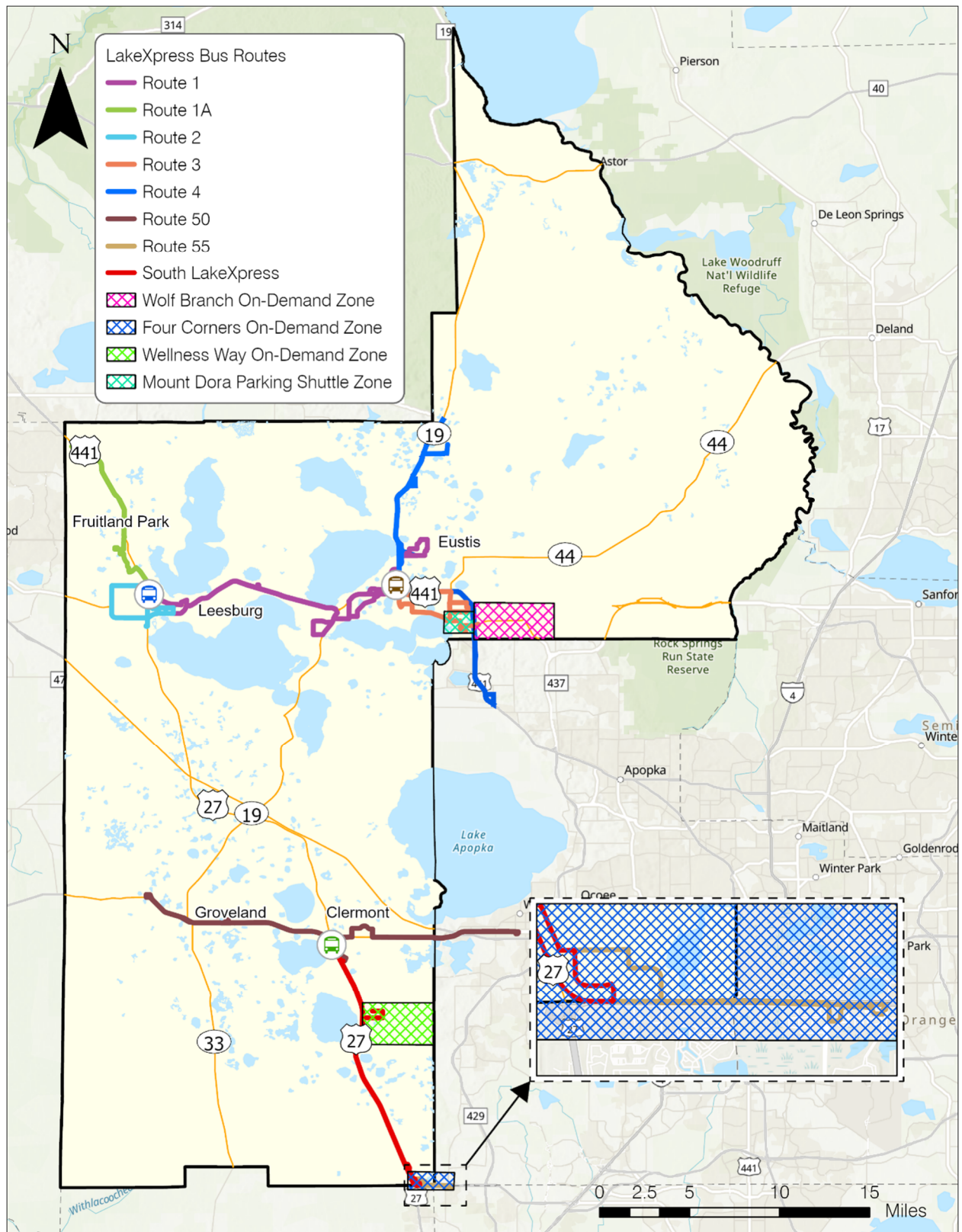
While on-demand transit services have existed and have been operated by public and private entities, existing ridership data and trends can often be challenging to acquire and, in some cases, be heavily safeguarded. Due to this, assessing on-demand transit service ridership is instead developed based on existing demographic, economic, land use, and travel pattern data. The purpose of this methodology is to describe the process that was utilized to estimate potential ridership for the following four proposed pilot on-demand transit zones in Lake County:

- **Wolf Branch Microtransit Zone:** A weekday on-demand service zone that would operate from 6:00 AM to 7:00 PM in the Wolf Branch Innovation District, located east of Mount Dora. It is proposed to support the new development which is expected to grow over the coming decade. This new service would be coupled with a modification to LakeXpress Route 4.
- **Wellness Way Microtransit Zone:** A weekday on-demand service zone that would operate from 6:00 AM to 7:00 PM in the Wellness Way area, a major development within the incorporated and unincorporated City of Clermont, east of US Highway 27. The area is expected to grow as a major commercial and residential hub within Lake County. The service would connect those within the Wellness Way region to major employment and retail hubs within the zone.
- **Four Corners Microtransit Zone:** A weekday on-demand zone in the Four Corners area that would operate from 6:00 AM to 7:00 PM. This service is proposed as a replacement for LakeXpress Route 55, which currently operates in the same proposed service area. The existing Route 55 operates during morning and evening peak hour times at 30-minute frequencies. Replacing the Route with a microtransit zone will allow for greater flexibility for riders within the zone.
- **Mount Dora Parking Shuttle:** A Friday through Sunday parking shuttle service that would operate from 11:00 AM to 11:00 PM within downtown Mount Dora has been a consideration for residents and stakeholders in the community as a potential way to ease parking and travel issues for residents and tourists visiting the area. This shuttle would connect various public parking areas within the city, allowing riders to get around Downtown Mount Dora more easily.

Map E-1 shows the locations of these proposed on-demand zones along with the existing fixed-route network. This methodology is a supplementary ridership forecasting approach to the TBEST ridership forecasts provided in Section 8 of the Lake County TDP.



Map E-1: LakeXpress Fixed-Route Network with Proposed On-Demand Zones



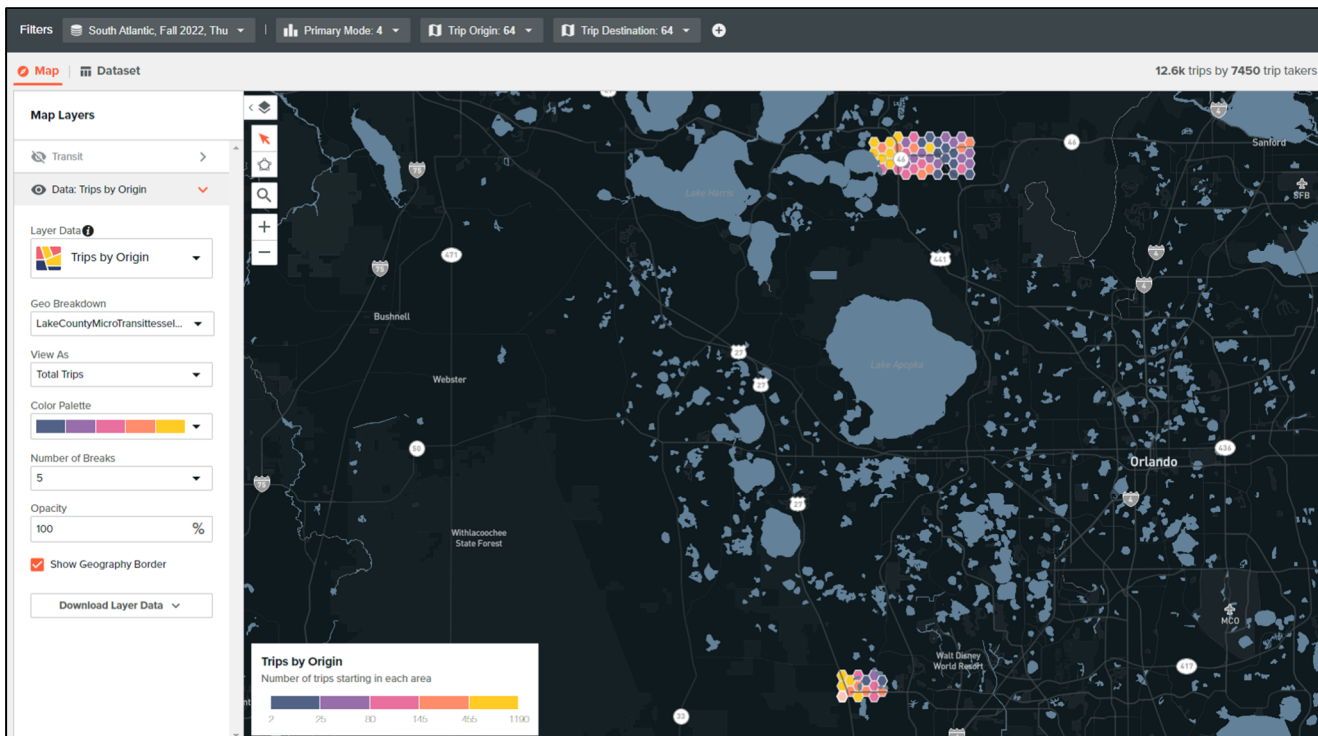


PROGRAMS AND RESOURCES UTILIZED

The following programs were required to develop ridership forecasts:

- **GIS:** Utilized to define service area sizes and locations. Polygons were drawn to represent the on-demand zones.
- **Replica:** Utilized to obtain granular travel pattern data, particularly trip origins and destinations. Service area polygons created in GIS were uploaded to Replica to understand travel patterns for trips originating and ending within the on-demand service area within the service time frame. **Figure E-1** provides a sample of the web interface for the Replica application.

Figure E-1: Replica Application Web Interface with Origin Trips Generated



Prior research and data are limited regarding on-demand transit ridership. Studies that have previously been conducted focus on obtaining transit "capture rates," which represent the percentage of on-demand transit trips that occur out of all trips taken within a zone. Microtransit and on-demand transit operators are often private entities that, historically, do not readily share ridership data. A limited number of case studies across the United States are often utilized to estimate on-demand transit capture rates. Two microtransit case studies in Gwinnett County, Georgia, and North Ogden, Utah, were used to obtain a range of capture rates that can be utilized to model potential ridership forecasts for LakeXpress On-Demand Zones, shown in **Table E-1**. While these two case studies represent operating environments and geographies different than Lake County, the following capture rates represent the best available data sources and are utilized as a baseline. The capture rates were categorized into "low," "medium," or "high" categories.



Table E-1: Microtransit/On-Demand Capture Rates

Low Capture Rate	Medium Capture Rate	High Capture Rate
0.2% ¹	0.3% ¹	0.5% ¹

¹ Source: Utah Transit Authority Microtransit Planning Project (Via, 2020) and Gwinnett County Microtransit Pilot Study (2019)

LAKEXPRESS ON-DEMAND RIDERSHIP FORECAST PROCESS

Once a baseline of on-demand transit capture rates that could be utilized was established, general service area geographies were determined for the on-demand zones to obtain total daily trip information from Replica. The locations of LakeXpress On-Demand Zones were developed through stakeholder input and general service area research. Once these general service areas were developed, the geographies were uploaded into the Replica program to obtain granular travel pattern data for origins and destinations within each zone, representing typical weekday (daily) trips that would occur in the specified seasonal timeframe of Fall 2022. Those trips were then filtered using the following criteria:

- Trips with an origin and destination within a specific on-demand service area.
- Trips that occur within each on-demand zone's service span (weekday trips from 6:00 AM to 7:00 PM for the Four Corners, Wellness Way, and Wolf Branch on-demand zones and Friday to Sunday, 11:00 AM to 11:00 PM, for the Mount Dora parking shuttle).
- Trips that utilize the following travel modes defined by Replica: auto driver, auto passenger, taxi, and transit. This data is estimated by Replica's software during standard Fall 2022 conditions, sourced from Replica's local data estimation technology.
 - Walking and biking trips were excluded as those are not considered good candidate trips that could be replaced by on-demand transit services.

Using those filters, a total number of trips internal to each zone was determined that fit within the operating framework of each on-demand zone, allowing for the application of a capture rate described above. As previously mentioned, assessing on-demand transit service ridership is not standardized and is primarily developed based on existing demographic, economic, land use, and travel pattern data. Because of this, external variables such as service promotion, land use changes, and projected population growth cannot be considered.

In the case of the on-demand zones identified in Lake County, such as in Wellness Way and Wolf Branch, these areas represent undeveloped portions of the County that are planned to have new development over the next decade. The Four Corners area is more heavily developed but is also expected to have rapid development and population growth over the next decade. Finally, the Mount Dora parking shuttle is expected to serve visitors and residents during the busier tourist season, where people attend downtown events and farmers markets. Therefore, the "high" capture rate of 0.5% was utilized to integrate the proposed development better and provide conservative ridership estimations. With these considerations, ridership estimations were developed for each candidate LakeXpress On-Demand Zone.



LAKEXPRESS ON-DEMAND RIDERSHIP FORECAST RESULTS

Table E-2 reflects the estimated transit trips per year that were calculated for each on-demand service zone. As previously discussed, these ridership forecasts can be considered conservative estimates based on the model's limitations. In the case of Wellness Way, trips are extremely low due to its lack of development and population in the area, leading to the on-demand zone generating a significantly lower number of daily trips than the other zones.

Despite these limitations, these ridership estimations can help understand the relative potential ridership of the on-demand zones compared to each other. Thus, this exercise allowed for a better understanding of which zones could be prioritized relative to the other evaluated alternatives and, in some cases, an understanding of whether certain services are feasible given existing conditions.

Table E-2: Microtransit/On-Demand Capture Rates

On-Demand Zone Name	Service Area Size (Square Miles)	Service Span	Service Days	Estimated Daily Replica Trips Within Service Span	Estimated Replica Trips Within Year	Estimated Transit Trips Per Year ³
Four Corners On-Demand	2.23	6:00 AM - 7:00 PM	Weekday	3,856	1,002,560 ¹	5,013
Mount Dora On-Demand	1.73	11:00 AM – 11:00 PM	Friday - Sunday	2,957	467,206 ²	2,336
Wolf Branch On-Demand	7.95	6:00 AM - 7:00 PM	Weekday	1,420	369,200 ¹	1,846
Wellness Way On-Demand Zone	8.06	6:00 AM - 7:00 PM	Weekday	35	9,100 ¹	46

¹ Calculated by multiplying estimated daily replica trips within the service span by the number of weekdays in 2023 (260)

² Calculated by multiplying estimated daily replica trips within the service span by the number of Fridays, Saturdays, and Sundays in 2023 (158)

³ Calculated by multiplying estimated replica trips within a year by the transit utilization rate of 0.5% described above.

DISCUSSION

As previously highlighted, on-demand and microtransit ridership estimations are challenging to produce due to a lack of available data. Despite this, the process allows a standardized methodology to assess ridership potential in On-Demand Zones relative to each other. For LakeXpress, this allows for a better understanding of which zones should be prioritized over others given limited resources (i.e., funding). Based on these results, the following are recommendations for LakeXpress to consider when introducing on-demand zones in the County:

- Due to the size and estimated ridership potential, a fleet size of one vehicle per zone would be necessary when starting.
- Start on-demand services as pilot programs based on the relative ridership potential for each (i.e., beginning in the Four Corners Zone where relative ridership is highest).



Appendix F

Farebox Recovery Report



Farebox Recovery Summary Report

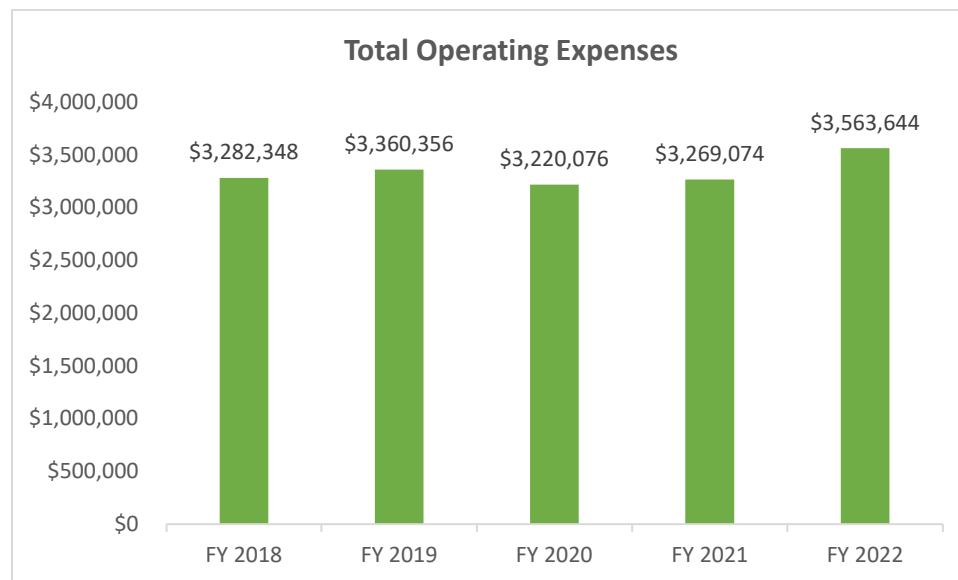
FAREBOX RECOVERY RATIO

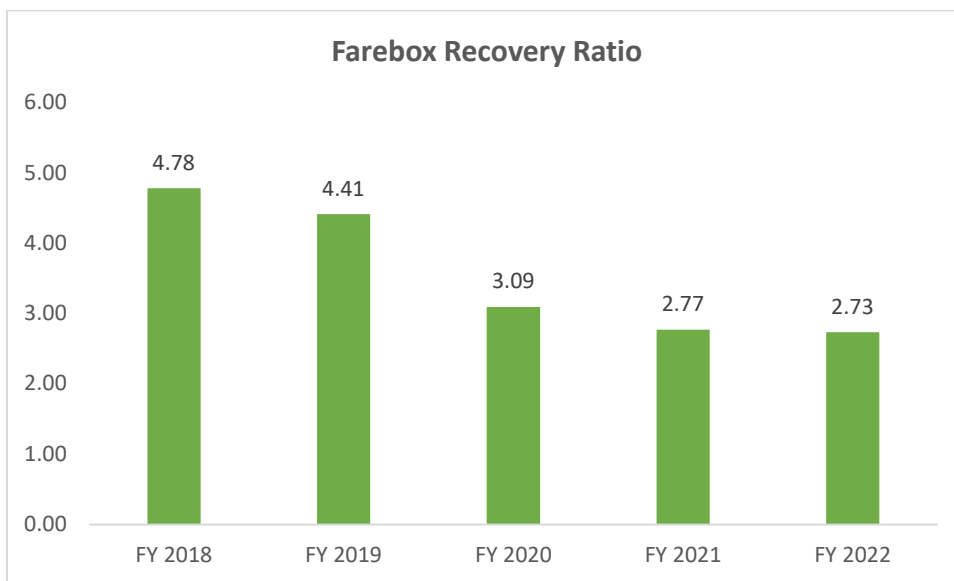
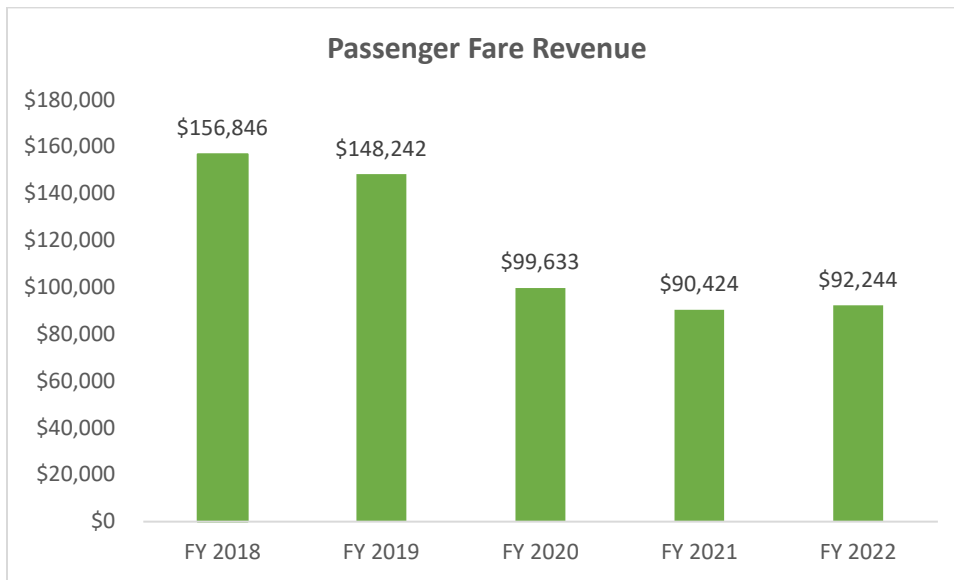
The farebox recovery ratio refers to the percent of a transit system’s total operating expenses funded through passenger fares. Farebox recovery is calculated by dividing the total fare revenue collected by total operating expenses. This value is reported by transit agencies as part of their annual National Transit Database (NTD) reporting to the Federal Transit Administration (FTA). This farebox recovery report summarizes farebox recovery data for the LakeXpress service.

CURRENT LAKEXPRESS FAREBOX RECOVERY RATIO AND TREND ANALYSIS

LakeXpress’ farebox recovery ratio in FY 2022 was 2.7 percent. That ratio reflects a reduction from pre-pandemic conditions where farebox recovery exceeded 4 percent. A five-year trend analysis was performed for this TDP Major Update to understand recent fluctuations in three key performance statistics: annual operating expenses, passenger fare revenues, and the farebox recovery ratio. Five years were evaluated, including FY 2018 through FY 2022. The bar chart series in this farebox recovery report illustrates the five-year trend for each of the three performance statistics examined. Key takeaways from a review of the performance statistic trends include the following:

- Operating expenses remained consistent between FY 18 and FY 21 before a more significant increase in FY 22.
- A sharp decline in passenger fares and the farebox recovery ratio are evident in FY 2020. That decline is consistent with national trends across all transit agencies. It is directly related to the impacts of the COVID-19 pandemic.
- Decreased passenger fares and the commensurate farebox recovery ratio started to level out in FY 2022.





COVID-19 IMPACTS ON RIDERSHIP AND FARES

Like many other transit agencies across the country, the entire LakeXpress system was impacted by COVID-19 as the pandemic led to declines in ridership and passenger revenues. A drop in demand for public transit services and reduced service operations for many agencies led to the sharpest decline in fare recovery in the last five years.

Additionally, safety measures implemented by LakeXpress to reduce the risk of COVID-19 transmission included the suspension of fares. The suspension of fares consisted of more than two months, beginning March 25, 2020, and ending May 31, 2020, further reducing passenger revenues and the farebox recovery ratio in FY 2020.



Small increases in LakeXpress fixed-route ridership were experienced in FY 2022 and FY 2023, and that growth is expected to continue and contribute to increases in fare revenues, with an eventual return in farebox recovery levels similar to the levels shown in the trend analysis for years 2018 through 2019.

STRATEGIES TO IMPROVE THE FAREBOX RECOVERY RATIO

The following is a list of strategies recommended for LakeXpress to consider for improving the farebox recovery ratio:

1. Apply the performance monitoring program defined in this TDP Major Update to improve service productivity and where resources are allocated.
2. Focus on improving the frequency of high-performing services. This is one of the highest priorities among existing bus riders and is a proven strategy that increases service efficiency.
3. Perform a fare evaluation to understand how fare policies and processes are implemented, including possible barriers, obstacles, benefits, and enhancements. A fare evaluation will also examine average fares across various fare payment options, and discounted fares can be modified to support the effort to increase the farebox recovery.
4. Deploy a mobile ticketing system. Implementing this new fare payment system is anticipated to expand access to the entire LakeXpress system of public transportation services. Expanded access provides transit-dependent and choice riders more options to pay fares.
5. Implement pre-paid fare payment programs for major employers and regional partners. LakeXpress should explore opportunities where fare payment contracts can be offered for select users. These efforts further expand access to LakeXpress service, contribute to transit use, and support efforts to increase fare revenue.