

# LAKE COUNTY TRANSIT DEVELOPMENT PLAN



Submitted To:



**LAKE COUNTY**

DEPARTMENT OF  
COMMUNITY SERVICES

*Public Transportation Division*



Prepared By:

**WilburSmith**  
ASSOCIATES

In Association with:



**The Lake County Transit Development Plan was developed with the thoughtful and generous assistance of a number of organizations and individuals that we would like to recognize here:**

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City of Clermont	Town of Montverde
City of Eustis	City of Mount Dora
City of Fruitland Park	City of Tavares
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**Lake~Sumter Metropolitan Planning Organization Board  
Citizens' Advisory Committee  
Technical Advisory Committee  
Bicycle/Pedestrian Advisory Committee  
Lake County Transportation Disadvantaged Coordinating Board  
LakeXpress Task Force**

**T. J. Fish, AICP, Executive Director, Lake~Sumter MPO  
Michael F. Woods, Transportation Planner, Lake~Sumter MPO  
Thomas W. Burke, P.E., AICP, Senior Transportation Planner, Lake~Sumter MPO  
Francis Franco, Transportation Concurrency & GIS Manager, Lake~Sumter MPO  
Susan Goldfuss, Executive Assistant, Lake~Sumter MPO  
Nancy Valenzano, Administrative Assistant, Lake~Sumter MPO**

**Kenneth Harley, Public Transportation Director, Lake County Public Transportation  
David P. Hope, Fixed Route Coordinator, Lake County Public Transportation  
Susan K. Dugan, CPPB, Senior Contracting Officer, Lake County Procurement Services**

<b>Jim McLaughlin, WSA</b>	<b>Joel Rey, TOA</b>
<b>Eric Holeman, WSA</b>	<b>Elisabeth Schuck, TOA</b>
<b>Jim Baker, CTG</b>	
<b>Milbrey Heard, CTG</b>	
<b>Sharon Hollis, CTG</b>	
<b>Jenifer Palmer, WSA</b>	
<b>Jeffrey Hosko, WSA</b>	
<b>Evan Bigos, WSA</b>	
<b>Abra Horne, WSA</b>	
<b>Peter Ogonowski, WSA</b>	

**LAKE COUNTY  
TRANSIT DEVELOPMENT PLAN**

*Prepared for:*

**Lake County Board of County Commissioners  
Lake County Public Transportation  
Lake-Sumter Metropolitan Planning Organization**

**2008 Major Update**

By

**Wilbur Smith Associates**  
3191 Maguire Boulevard, Suite 200  
Orlando, Florida 32803  
ph (407) 896-5851, fax (407) 896-9165

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## EXECUTIVE SUMMARY

This Transit Development Plan (TDP) is the first ten-year plan prepared for Lake County. It is a strategic plan that is used to guide transit planning, development, and operations over the planning horizon from FY 2009 through FY 2020. The TDP is required by the Florida Department of Transportation (FDOT) in order to maintain eligibility for Public Transit Block Grant (PTBG) program funds. The annual update to the TDP is required under Florida Statute 341.052 (Chapter 14-73) to show how community goals for public transportation are being implemented. A major update of the TDP is required every five years. The last major update was a five-year TDP prepared in 2005. This major update covers the planning horizon of 2009-2020.

In addition to the State mandate, the TDP also can assist in meeting several objectives, as indicated in “*A Manual for the Preparation of Transit Development Plans*,” prepared by the Center for Urban Transportation Research (CUTR) as updated in 2001. These objectives include:

- “(1) *To establish a basis for coordination among transportation planning efforts by stating priorities for the transit agency;*
- (2) *To level the playing field for transit and highway projects in metropolitan areas, just as the Intermodal Surface Transportation Efficiency Act (ISTEA) did and the Transportation Equity Act for the 21<sup>st</sup> Century (TEA 21) does at the federal level;*
- (3) *To provide a clear justification for funding requests; and*
- (4) *To identify and state a vision for the near-term future direction of the transit agency.”*

This document fulfills the state mandate, while also meeting the above-referenced objectives. The TDP has been organized so that it may be updated continually to reflect the most recent capabilities for funding identified improvements based upon new and emerging funding opportunities and partnerships. The most critical issue facing the Lake County Public Transportation Division is funding for existing fixed-route bus service as well as proposed service enhancements identified in this TDP.

This TDP will help Lake County to achieve multiple goals, including:

1. Develop a multimodal transportation system that supports the community vision.
2. Expand transportation choices and improve local and regional mobility.
3. Maintain the throughput and level of service of regionally significant facilities.
4. Reduce travel by single occupant vehicles and per capita vehicle miles traveled.
5. Maintain and enhance the accessibility of the transportation system for all users, including young, elderly, disabled, and economically disadvantaged persons.

By identifying strategies to increase mobility and enhance access to transit, this TDP will help the community implement its vision for a multimodal transportation network and an improved quality of life. The strategies identified in this TDP are consistent with the goals and objectives identified in the following documents: (1) the adopted Lake County Comprehensive Plan (LCCP); (2) the draft 2025 LCCP; (3) the Lake~Sumter Metropolitan Planning Organization's (Lake~Sumter MPO) Long-Range Transportation Plan (LRTP); (4) Lake~Sumter MPO Transportation Improvement Plan (TIP); (5) the East Central Florida Strategic Regional Policy Plan (SRPP); (6) the Florida Department of Transportation's (FDOT) 2025 Florida Transportation Plan; and (7) FDOT's Transit 2020 Plan: A Strategic Plan for Public Transportation. As such, this TDP will help to translate Lake County's transit vision into reality.

The TDP includes ten sections which are briefly described below:

**Section 1** provides an overview of the study area and study area characteristics, including existing transit services, environmental features, and economic factors affecting the study area. This section also includes further detail on TDP requirements, as well as a description of internal and external factors that influence the current update.

**Section 2** presents the Lake County Vision Statement, and considers historical trends for the area, existing transit services, demographics and partnership opportunities in the region. The vision that emerged from this investigation is one that seeks to continue providing high quality public transit to those who need it, while also pursuing a long-term strategy of providing premium services along major transportation corridors to attract new riders.

**Section 3** presents the transit goals and objectives recommended as part of the TDP Update. These goals and objectives focus on continuing to provide quality service to the transportation disadvantaged, and emphasize strategies to improve transit services in a cost-effective and cost-feasible manner.

Strategies are identified that promote transit services through greater marketing and increased local coordination, as well as efforts to coordinate transit improvements at the local and MPO levels. Promoting land use patterns that support transit, including the clustering of mixed-uses and other transit-oriented designs in medium and large-scale planned developments, are also discussed.

**Section 4** describes existing plans, programs, and documents relevant to Lake County, and ensures that this TDP is consistent with other related transportation and land use plans. Long-term planning documents such as the state's Long-Range Transportation Plan (LRTP) are considered with local policies such as the Lake~Sumter MPO Corridor Constraint Policy to cover all pertinent goals, objectives, and policies that were considered for consistency purposes as this TDP was developed.

**Section 5** summarizes existing conditions for the service area, including explanations of existing routes, population and demographics trends for the years 2000 and 2020, transportation disadvantaged information for 2000, as well as information on housing and employment densities to identify transit-supportive areas. Future needs are summarized and focus on corridors, community circulators, and regional travel. A table summarizes the recommendations of previous planning studies.

**Section 6** reviews the results of the public outreach efforts related to the TDP update and presents the results of public input. Public outreach was extensive, and strategies included stakeholder interviews, on-board transit passenger surveys, transit operator surveys, public workshops, online surveys, and discussion groups. Results of the public involvement activities are also utilized in subsequent sections to determine transit service marketing needs, and to establish the recommended transit alternatives for this TDP.

**Section 7** provides a summary of transit marketing activities, along with recommendations for publicizing public transportation services in Lake County. In addition, a performance monitoring program is presented, including four performance measures to help measure the efficiency and effectiveness of public transportation in Lake County. Peer systems are also identified in this section for use in subsequent

monitoring activities, and may be used in later analyses once more transit data becomes available for comparative purposes.

**Section 8** presents a range of alternatives reviewed in the process of this TDP Update, presents three (3) alternatives for consideration, and describes a number evaluation measures to be considered in determining a preferred alternative. These recommendations are based upon the County's goals and objectives described in *Section 3*, the existing and projected transit needs presented in *Section 5* as well as public input detailed in *Section 6*.

**Section 9** summarizes the costs associated with maintaining existing fixed-route and paratransit services as well as implementing new transit services. This section includes data on anticipated start-up and operating costs for each of the alternatives described in *Section 8*, and identifies funding sources and strategies. A forecasting methodology is detailed to provide basic assumptions utilized in cost projections.

**Section 10** presents the implementation action plan. This section includes an annual checklist to track and monitor performance as the annual TDP updates are prepared. It also describes the financial analysis that is needed to implement the recommended improvements. Lake County will need to coordinate with its funding partners to ensure that adequate financial resources are available to off-set the transition from a rural system (eligible for various operating funds) to a small urban system (with fewer operating funding opportunities). Accordingly, the implementation plan for the TDP describes methods for coordination with funding partners including cities, developers, neighboring transit providers, the FDOT, and the Federal Transit Administration.



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## Section 1.0 Introduction

The Transit Development Plan (TDP) is a planning, development, and operational guidance document based on a ten-year planning horizon. This TDP provides an assessment of existing conditions, services provided, transit needs, public transportation objectives, and steps required to implement new services. The TDP also documents the community's visions, goals, and objectives for public transportation as revealed through the public involvement process. The TDP presents Lake County Public Transportation's operating and capital improvements for the next ten year period and is intended to guide the activities, priorities, and budgets of the organization. A major update and rethinking of the TDP is conducted every five years and the information in the TDP is updated annually in the form of a progress report. The last major update was conducted for fiscal years 2005 through 2011. This version of the TDP is a major update covering fiscal years 2009 through 2020, the years for which funding is being sought. It also identifies anticipated transit improvements for the subsequent nine (9) years. In accordance with *Section 14.73.001(3)* of the *Florida Administrative Code*, the Lake County TDP must be updated every five years.

The State of Florida requires that all public transportation service providers develop a TDP to qualify for Florida Department of Transportation (FDOT) public transportation funding assistance. In reality, the TDP provides the community with an opportunity to develop a strategic and comprehensive vision to assess existing transportation services and identify goals, objectives, and proactive strategies for meeting future transportation needs. The TDP assesses the current and projected conditions within the service area in terms of transportation needs and quality of life issues and develops service plans to address those needs. In accordance with *Section 14.73.001(3)* of the *Florida Administrative Code*, this TDP will be adopted by the Lake County Board of County Commissioners. The TDP will also be presented to and approved by the Lake~Sumter Metropolitan Planning Organization (hereafter referred to as Lake~Sumter MPO) Board, its committees, and the LakeXpress Task Force.<sup>1</sup>

Ultimately, the projects identified in this TDP will be incorporated into the Lake~Sumter MPO Long Range Transportation Plan for direction in developing future mobility choices, in addition to the single-occupant vehicle. The Cost Feasible Long Range

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<sup>1</sup> This LakeXpress taskforce monitors the progress of the LakeXpress fixed-route bus service along the U.S. Highway 441 corridor.

Transportation Plan is required to consider a twenty year horizon. Federal and state requirements mandate that all transportation improvements must be coordinated through the Lake~Sumter MPO, within the adopted Cost Feasible Long Range Transportation Plan, and scheduled in the five year Transportation Improvement Program (TIP). A major component of the Long Range Transportation Plan is public transportation in the form of express bus service, fixed-route bus service, and paratransit. In the future, it is anticipated that additional premium transit modes could be offered in Lake County such as local circulators, commuter rail, light rail, bus rapid transit, and ferry service. Other transportation demand management strategies that provide opportunities to enhance the existing transportation network include: carpooling, travel planning, and Intelligent Transportation System (ITS) applications.

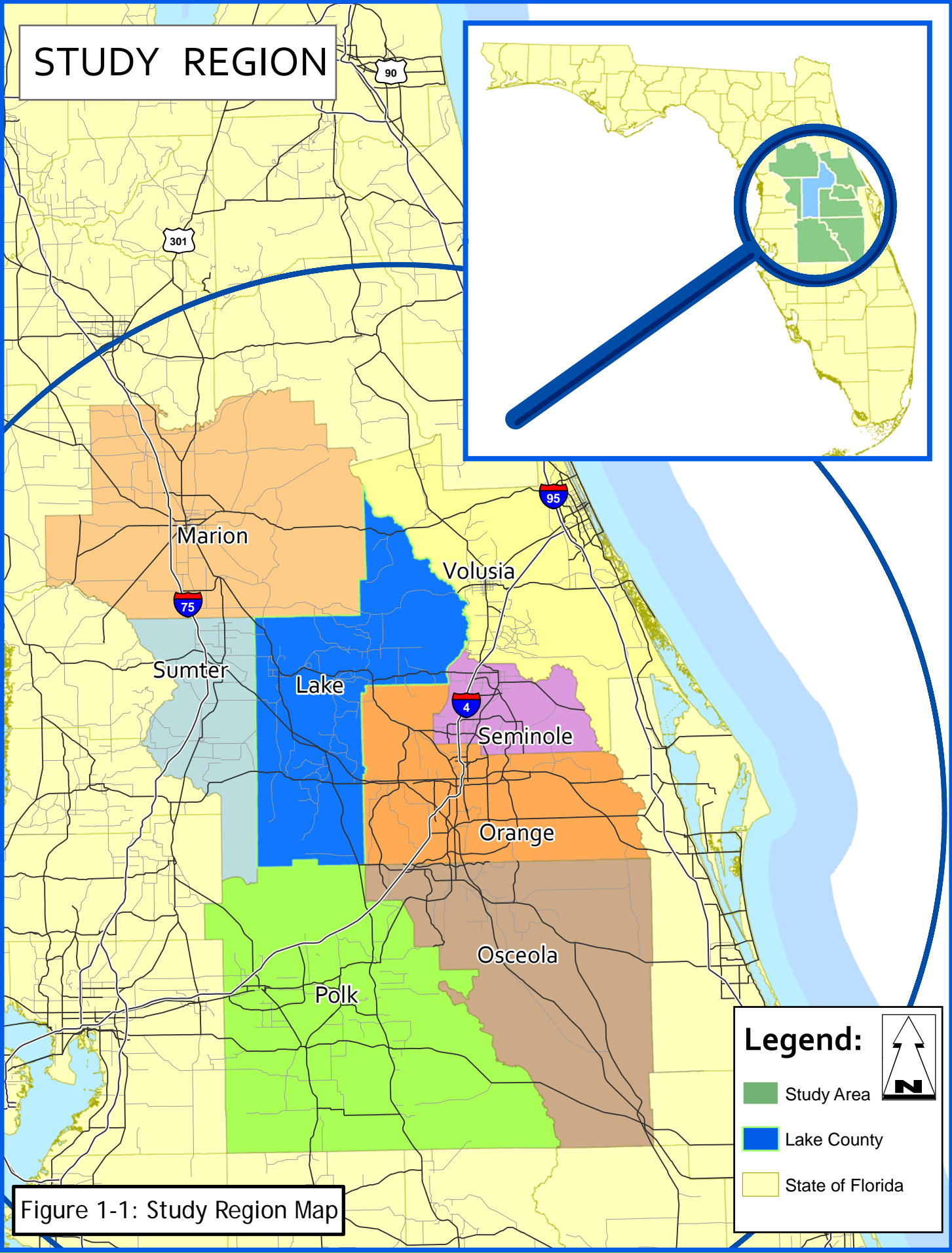
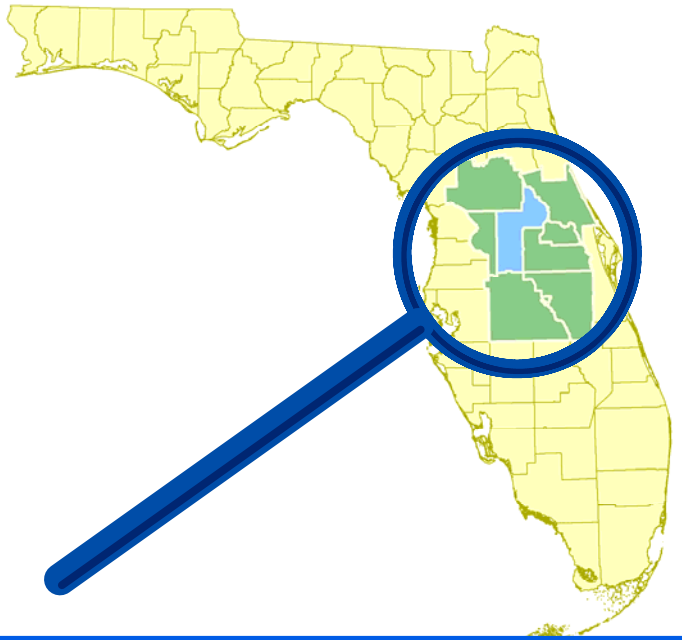
All transit improvements within the Cost Feasible Long Range Transportation Plan and specified in the TIP rely on significant capital funding from Federal and State sources. These funding partnerships require that very specific procedures for planning, designing, implementing, monitoring, and operating these services be followed. The TDP includes an implementation action plan with annual tables to assist Lake County with tracking progress toward meeting identified goals within the ten year planning horizon.

An FDOT-approved Public Involvement Plan (hereafter referred to as the PIP) was developed specifically for this update of the TDP. The PIP identified the proposed methods and strategies for offering public involvement opportunities to review the mission, goals, objectives, alternatives, and ten-year implementation plan. Meetings were held with the Regional Workforce Development Board and the Lake~Sumter MPO to discuss the TDP's public transportation goals, alternatives, and implementation plan. **Section 6** describes in detail the public involvement activities conducted in conjunction with this TDP update and the FDOT-approved PIP is included in **Appendix A**.




## ***1.1 Study Area Context***

The study area context is presented in this section because a thorough understanding of the planning environment within which a transit system operates is essential to the successful development of a TDP identifying current and future enhancements to the Lake County transit system. A descriptive overview of the existing transit services and the general characteristics of Lake County are provided below. **Figure 1-1** also provides an illustration of the study region. After providing this background context, the chapter describes the TDP requirements and discusses major concepts.

# STUDY REGION



## Legend:

-  Study Area
-  Lake County
-  State of Florida

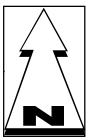


Figure 1-1: Study Region Map

### 1.1.1 Existing Lake County Transit Service

Public transportation services in Lake County are comprised of LakeXpress, the County’s fixed-route bus service, and Lake County Connection paratransit services, which includes door-to-door transportation disadvantaged services and complimentary Americans with Disabilities Act (ADA) transportation services. Lake County provides LakeXpress and Lake County Connection through a contract with MV Transportation. In addition, Lake County provides a park-and-ride lot on US 27 (south of SR 50) near Clermont and another park-and-ride at the Wal-Mart on US 27. From these lots, the Clermont Express (#204) provides express bus connections to Downtown Orlando and fixed-route bus service (#55) along US 192 to Disney. Both are provided through an agreement with LYNX, the public transportation service provider for Orange, Osceola, and Seminole counties.

### 1.1.2 Overview of Lake County

Lake County is situated in Central Florida northwest of the Orlando Metropolitan Statistical Area, as shown on

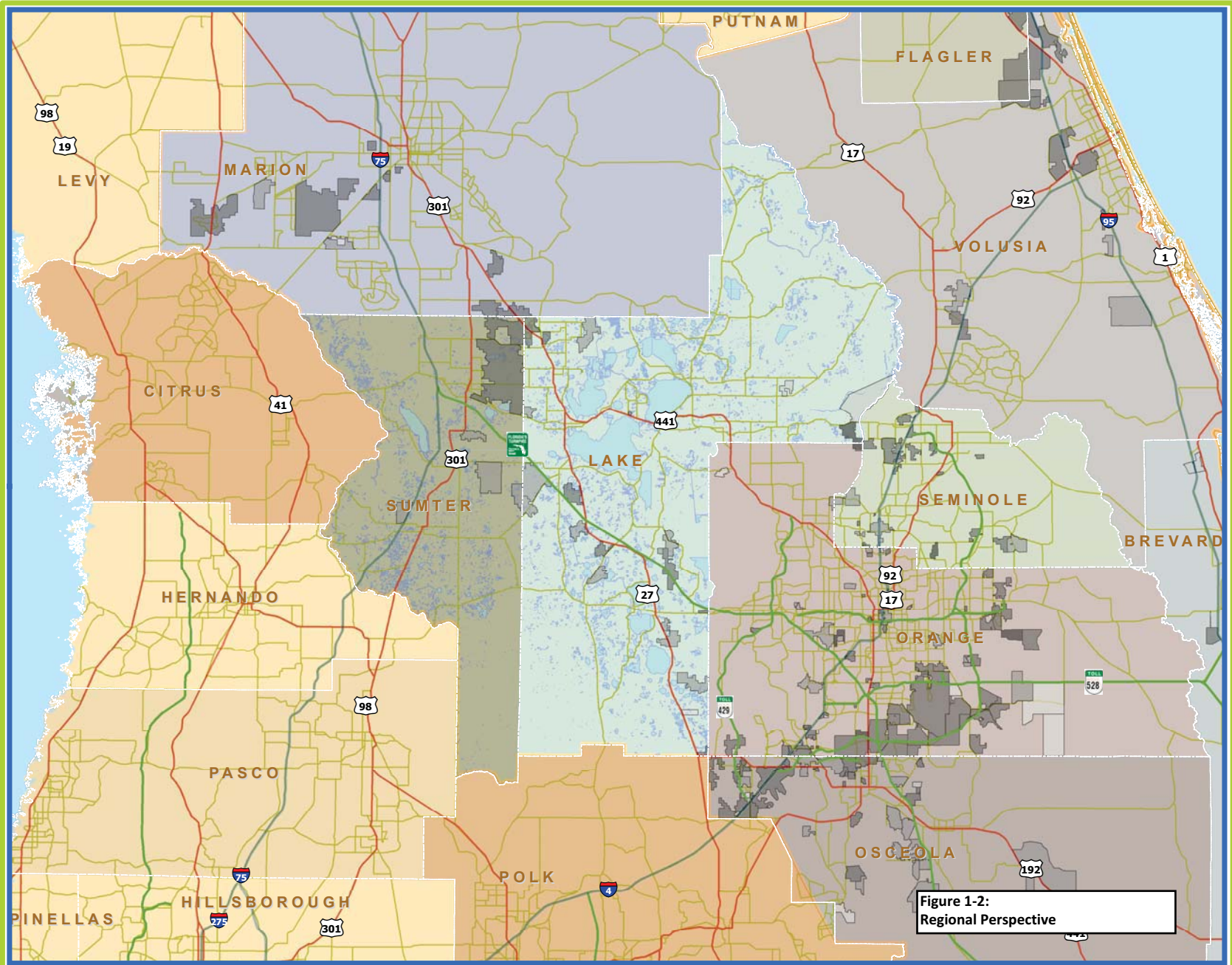
**Figure 1-2.** The County is “L” shaped and measures approximately 740,000 acres. In the region, Lake, Osceola, and Sumter counties have historically experienced slow population growth and low density development patterns. The historic population growth rates for Lake County and the surrounding counties are provided in **Table 1-1** for contextual purposes.

**Table 1-1 – County Population Growth 1970 through 2006**

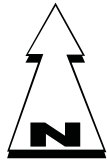
County	1970	1980	1990	2000	2005*	2006*
Lake	69,305	104,870	152,104	210,528	273,277	276,783
Orange	344,311	471,016	677,491	896,344	1,002,849	1,079,524
Osceola	25,267	49,287	107,728	172,493	229,134	255,903
Seminole	83,692	179,752	287,529	365,196	398,013	420,667
Sumter	14,835	24,272	31,577	53,345	69,300	71,941
Volusia	169,487	258,762	370,712	443,343	475,189	503,844

Source: US Decennial Census, 1950-2000, American Community Survey 2005 estimate, and the University of Florida's Bureau of Business and Economic Research, Population Studies 2007

\*Estimates



# REGIONAL PERSPECTIVE



- Legend:**
- Regional Perspective**
- DRI
  - Inactive DRI
  - DRI Denied/ Under Appeal
  - DRI Pending Changes
  - DRI Approved with Conditions
  - DRI ADA Withdrawn
  - Interstate
  - Toll Roads
  - US Highways
  - County Boundaries

**Figure 1-2:  
Regional Perspective**

Recent Lake County population growth has led to a surge of new housing construction and it is one of the fastest growing Central Florida counties. With this rapid growth, the County has faced challenges with meeting transportation needs.

### **1.1.3 Lake County Environmental Features**

Lake County is geographically different from the other counties because of its 1,400 named lakes (nearly 300,000 acres of lakes and water bodies) and its rolling topography, with elevations exceeding 300 feet in some areas. The Ocala National Forest covers the northern portions of the County and the Green Swamp is located at the south end of Lake County. In addition, much of North-Eastern Lake County lies within the Wekiva Commission Study Area. These natural areas are ecologically sensitive and future growth and development will be monitored closely within the study as the region develops and adds new transportation corridors. The most sensitive ecosystems will be conserved, and other land areas may be developed by following strict guidelines for conservation set asides, best management practices, and continuous wildlife migratory corridors, to mention a few.

### **1.1.4 Lake County Industry**

Formerly a world leader in Citrus production, Lake County was hit hard by a series of 1980's freezes which killed many orchards. As a result of the loss of much of its citrus industry, the County purchased land for the Ford Commerce Industrial Park in the 1980's on U.S. Highway 27 at the crossroads of State Road 19 and the Florida Turnpike. Lake County was seeking to diversify the local economy and create jobs. The industrial park includes more than 700 acres and companies such as Circuit City, Goodyear Tire, Carroll Fulmer Trucking, Domino's Pizza, and Maritec Industries. Tourism is at an all-time high with visitors flocking to antique shopping areas and cruises offered on the many lakes.

## ***1.2 TDP Requirements***

This section provides the TDP requirements per the Florida Statutes and Florida Administrative Code. A Transit Development Plan (TDP) is a ten (10) year planning, development, and operational guide for public transportation providers wishing to receive certain state transit grant funding. In accordance with *Rule Chapter 14-73.001, Florida Administrative Code (F.A.C.)* and *Chapter 341.052 of the Florida Statutes*, the TDP must, at minimum, include the following elements:



- An approved public involvement plan
- A situational appraisal of factors within and outside of the service area that may have an affect on transit service
- A statement of the provider’s vision, mission, goals and objectives
- Alternative strategies and actions for achieving the Lake County goals and objectives, including financial options considered
- A ten-year implementation plan and financial plan
- A discussion of the relationship and consistency of the TDP with other local planning documents

All TDP’s must be consistent with other governmental planning documents and updated every ten (10) years. Preparation of the TDP must be completed by the public transit provider in cooperation with the applicable Metropolitan Planning Organization (MPO), in this case, the Lake~Sumter MPO.

### ***1.3 2008 TDP Update***

This document is the third comprehensive update of the TDP for Lake County, and three noteworthy trends have developed since the previous 2005 TDP Update. First, a notice of proposed rulemaking for TDP requirements (major and minor updates) was published in the *Florida Administrative Weekly, Volume 31, Number 52, December 30, 2005*. New requirements for TDP’s in the state of Florida extend the planning horizon from five years to ten years; as such, this TDP update will cover Fiscal Years 2009-2020.

A second major modification from the previous update concerns the addition of information on Sumter County into the 2008 TDP Update. Although the focus of this TDP is Lake County proper, the Lake~Sumter MPO and Lake County Public Transportation are contemplating a more regional approach to transit over the next ten years. It should be noted, for example, that the Lake~Sumter MPO urbanized area currently includes The Villages development in Lake, Sumter, and Marion Counties. As the area continues to develop, it is anticipated that the urbanized area and travel market will become more regional and include more areas of Sumter County, including the City of Wildwood. As such, this document begins to identify regional transit needs through the Year 2020 for Lake County and Sumter County.

Finally, it is important to note recent internal and external trends that are expected to impact public transportation funding over the ten year planning horizon. Internally, Lake County is currently transitioning from its designation as a rural transit service provider to a small urban designation. One of Lake County's peers, Collier Area Transit, made this transition after the 2000 U.S. Census population estimates were published. This anticipated reclassification will impact certain state and federal funding sources which are apportioned based upon the population size of the service area.

Coinciding with these internal factors, a number of external factors may also impact public transportation services. Rising infrastructure costs and fuel consumption costs present a great challenge, and gas taxes are insufficient to address the growing needs of the transportation system. The Federal budget, the largest single source for project funding, is facing unsustainable deficits that threaten economic vitality across all sectors of government. National and state economic trends are revealing significant slowdowns that together with higher fuel and food prices will affect labor rates. In addition, recent property tax reform legislation in Florida has significantly impacted state and local government revenues. Finally, declining federal, state, and local revenues combined with increasing transportation needs are resulting in increasing transportation funding gaps. In considering these challenges, effective transportation planning seeks to improve public safety and mobility through strategic investments that meet current goals while addressing future system needs.

## **Section 2.0 Vision for Public Transportation**

The Lake County Vision Statement was developed based upon the collective objectives described by the community, elected officials, and staff. The Vision Statement is briefly summarized in this Section on page 2-4.

### ***2.1 Introduction***

Based on this understanding, Lake County's Public Transportation Vision has been defined and is presented herein. In the Lake County 2020 Transit Development Plan (TDP), this Vision Statement precedes the Goals and Objectives listed in **Section 3** and together these statements will guide the implementation strategies identified in **Section 10**. This statement provides guidance for the ten-year TDP, as well as for the upcoming Long Range Transportation Plan update that will be developed for Lake and Sumter counties.

#### ***2.1.1 Background***

Since 1970, population growth in Lake County has resulted in the rapid development of vacant land. The population has grown from nearly 70,000 in 1970 to a 2007 population of over 270,000 persons<sup>2</sup>. With this amazing growth, it is not surprising that Lake and Sumter counties have been proactively pursuing smart growth strategies and participating actively in the region's *How Shall We Grow* visioning efforts. As a result of this participation, elected officials and residents have become more attuned to the relationship between land use decisions and the transportation system. Alternative transportation modes (other than single-occupant vehicles) are becoming the focus of the community with an emphasis on transit.

#### ***2.1.2 Current Services***

Lake County Connection, the County's paratransit service, continues to provide paratransit services and ADA complementary services to the transportation disadvantaged (TD) population. For LakeXpress, the County's fixed-route bus service, the focus of service has been providing fixed-route transit services to people without access to other means of transportation, due to age, income, disability, or other reasons. In other words, LakeXpress fixed-route services are the only option for a majority of the transit-dependent population.

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<sup>2</sup> *Demographic Estimating Conference Database, updated March 2005. Bureau of Business and Economic Research, Total County Population: April 1, 1970 – 2030.*

## **2.2 Public Input**

Based upon the FDOT-approved *Public Involvement Plan*, discussions were held with the community, elected officials, Lake County Public Transportation Division Staff, and Lake~Sumter MPO Staff. Public comments were submitted through on-board surveys, on-line surveys, general public discussion groups, and public workshops. As such, this Section includes an understanding of Lake County's aspirations for future public transportation services.

### **2.2.1 Rider Surveys**

Based on an April 2008 survey of existing LakeXpress riders, seventy-nine percent (79%) stated that they do not have any other means of transportation except for the services provided by LakeXpress. Future LakeXpress service could be operated in a more user-friendly manner so that bus services meet the transportation needs of other residents who have access to a car, but would like to have another transportation choice, such as access to transit. These so-called "choice" riders opt to ride transit rather than other available transportation options. Recent national trends indicate that choice riders tend to be long-distance commuters with higher incomes who use transit mainly for commuting to work.<sup>3</sup>

The same April 2008 survey of existing LakeXpress riders also reflected that sixty percent (60%) of LakeXpress riders are using the bus to get to work, seventy percent (70%) are of working age (25-59 years of age), and eighty-five percent (85%) have annual household incomes below \$30,000. The survey indicates that LakeXpress is filling a critical local need for residents that are most in need financially. LakeXpress is getting people to work who could not otherwise work because of their inability to access jobs. Essentially, this service is reducing unemployment in Lake County.

### **2.2.2 Willingness to Pay for Transit**

During the TDP public involvement process, the public indicated that if transit were convenient, accessible, safe, and efficient, they would choose to ride transit. A majority of passengers interviewed also were willing to pay additional taxes for an expanded transit system. The survey results indicate that riders would like existing services to be improved and premium transit services such as express bus service, light rail, commuter rail, connections to Disney, fast service to Downtown Orlando, and access within the

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<sup>3</sup> *MTP 2035 Issue Papers: Transit Expansion, Sacramento Area Council of Governments. This paper states that persons with incomes over \$50,000 per year comprise 17% of the nation's transit users.*

County to social and municipal services. Desirable existing service improvements might include more frequent service and longer hours of operation. Patrons expressed concern that paratransit service and meeting the needs of transit-dependent riders would continue to be the focus of LakeXpress service provision. Both LakeXpress riders and non-riders alike remain hopeful for and seek a future where commuter facilities, such as park-and-ride lots and premium transit services are offered. Public meetings with riders and non-riders revealed some confusion regarding the difference between LakeXpress and Lake County Connection. In addition, meeting participants were not clear about who operates these two services.

### ***2.2.3 Premium Transit***

Opinions among riders vary regarding the timeframe for implementing premium transit such as commuter rail, light rail, and bus rapid transit, but these transit services are definitely among the community's aspirations. Escalating gas prices have begun to affect rider and non-rider behaviors and opinions. The community is seeking near-term improvements to fixed-route bus service that will provide residents with a viable alternative to riding in a car that is both convenient and gets them where they need to go when they need to travel. As such, the vision for public transportation includes the implementation of premium transit as well as near-term enhancements to fixed-route bus service. There has been an interest in improving efficiency by converting paratransit ridership to fixed-route service, where appropriate, within the ten-year planning horizon.

A long-term transition from enhanced fixed-route service to premium transit must evolve gradually based upon the success of initial services, development of local transit patronage, and the financial capacity of the community to pay for services. The transit alternatives identified and analyzed in this TDP are designed to specifically address the above vision and three major transit markets: transit-dependent persons, local low-wage earners, and commuter populations. These populations are the system's ridership base today.

### ***2.2.4 Rider Demographics***

On-board survey results indicate that LakeXpress ridership is principally comprised of commuters earning less than \$30,000 annually and South Lake Express patrons are generally Downtown Orlando employees earning more than \$50,000 annually. As such, the challenge for Lake County is to address the needs of these groups as the service transitions from the initial fixed-route bus service to enhanced bus and premium transit services along key transportation corridors in the most effective manner possible, without

compromising quality. The provision of the LakeXpress and South Lake Express services will assist in educating the citizens about the use of public transportation, which is an important element to support a long-range commitment to public transportation.

### ***2.3 Brief Vision Statement***

In summary, Lake County's vision is:

***To continue to provide high quality public transportation services to  
paratransit patrons and transit-dependent riders and  
attract more choice riders with a long-term strategy for  
providing premium transit along regional transportation corridors.***

The mix of public transportation services will continue to evolve through the Year 2020 with studies to develop commuter rail service and other premium transit services to provide a safe, efficient, cost effective, and accessible public transportation system that will meet the financially feasible mobility and accessibility needs of residents and visitors.

### ***2.4 Coordination***

The 2020 TDP identifies goals, objectives, and strategies that are designed to foster development of the type of community that residents seek and desire to fulfill this vision. Lake County will continue to coordinate with the adjacent transit providers, Sumter County, Marion County, Polk County, Volusia County, the Lake~Sumter MPO, 19 local governments, Florida's Turnpike Enterprise, the Florida Department of Transportation, LYNX, Sumter County Public Transportation, the East Central Florida Regional Planning Council, and the Withlacoochee Regional Planning Council to ensure that development decisions benefit the community and the regional transit system at the same time.

#### ***2.4.1 The Relationship Between Land Development and Transportation***

Understanding both the demand for transportation services and the potential constraints on the provision of transportation services, the Lake~Sumter MPO is utilizing the ***2050 How Shall We Grow Population Centers Map*** to integrate land development approvals and transportation network investments. The ***2050 Map***, in combination with other

ongoing planning studies, will serve as a guide for identifying where there may be the greatest need for all forms of transportation connectivity now and in the future. While the anticipated location of the County's population is important to determine where connectivity is needed, the County's natural features and land use goals also play an important role in determining how connections between communities may occur in Lake County.

The potential areas where transportation improvements may be made are appropriately limited by three factors: the large number of lakes in the County; environmentally sensitive conservation areas, and protected farm lands. These protected areas serve to emphasize that there are only a limited number of transportation corridors that are both responsive to the transportation needs of Lake County residents and environmentally responsible.

#### ***2.4.2 Transit Funding Partnerships***

The LakeXpress system will focus on improving regional mobility for residents by investing in transit operated along major transportation corridors. It is anticipated that these routes will be designed and operated with the needs of transit-dependent populations as a focus to build ridership initially, but they also will be designed and operated to enhance their attractiveness to choice riders. This functionality for choice riders is very important for commuters with jobs both within and outside Lake County. As the need for additional supporting local bus services are identified, Lake County Public Transportation Division Staff will provide technical assistance, submit grant applications, and operate services funded by local governments through LakeXpress. Over the next few years, circulators or "feeder" bus routes, such as *Route 2 (Leesburg Circulator)* and *Route 3 (Mount Dora Circulator)*, will eventually be transitioned so they are funded by local government partners rather than Lake County.

### ***2.5 Conclusion***

Lake County is working to ensure that public transportation is a meaningful resource to the community. This vision for Lake County includes expansion of ridership by enhancing service on existing routes with evening and weekend service, and improving the convenience of transit throughout the community. Therefore, the 2020 TDP establishes a strategic approach to expanding services including a network-level service plan, strategic transit system initiatives, and the implementation steps necessary to gradually put the ultimate premium transit services into operation. The selection of corridors recommended for the implementation of new service in the 2020 TDP is based

on two primary considerations: the potential need for the service and the feasibility of implementing the service. The need for the service is made up of several components including the location of potentially transit-dependent populations, the presence of commuter populations, connectivity with “circulator” or “feeder” services that may enhance mobility and ridership, and the potential to attract new riders. This latter group may be expected to grow with the recent increase in the price of gasoline. Another indicator of the need to modify existing service or add new service is the proposed changes’ impact on other services provided by the agency, in particular paratransit service. New fixed-route service may replace some paratransit services in those areas currently receiving a significant amount of paratransit service.



## Section 3.0 Goals and Objectives

### 3.1 Introduction

The purpose of this section is to present the recommended transit goals and objectives developed as part of the TDP Update for Lake County. The Lake County 2005 TDP was used as a starting point to develop the goals and objectives for this TDP update. Lake County Public Transportation Division Staff provided updated goals and objectives for inclusion in this TDP Update. As stated in **Section 1**, Lake County is currently transitioning from its designation as a rural transit Service Provider to a small urban designation, which requires further refinement of the 2005 TDP goals and objectives. Information obtained as a result of the public workshops has been used to further refine the goals and objectives.

Lake County residents want public transportation that enhances service on existing routes and improves the convenience of transit throughout the community. Regional connections within Lake County and to adjacent counties have been identified as the focal point for strategically expanding services and gradually implementing premium transit services. Corridors recommended for implementation have been based on two primary considerations: the potential need for service and implementation feasibility. The LakeXpress system will focus on improving regional mobility by investing in transit along major transportation corridors. These routes will be operated with the needs of transit-dependent populations as a focus to build ridership, but they will be designed to attract choice riders as well. As additional local bus services are identified, Lake County will operate services funded by local governments through LakeXpress. Circulators will eventually be funded by local government partners rather than by Lake County.

### 3.2 Transit Goals and Objectives

Developing a set of goals and objectives for a public transportation system within urbanized areas of Lake County is critical to establishing a vision for transit, and is a fundamental component of this Transit Development Plan (TDP). In addition, the *Lake County Transit Development Plan*, adopted in 2005, was also reviewed in the context of its relevancy to public transportation goals and objectives, and contributed to the goals and objectives that are recommended for this TDP. **Table 3-1** presents the transit mission statement, goals, and objectives for the Lake County public transportation services.

**Table 3-1 – Public Transportation Mission Statement, Goals, and Objectives**

<b>Mission Statement</b>
The mission is to provide a safe, 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.
<b>Goal 1: Examine the financial feasibility of expanding the current public transportation services to meet the transportation needs of the general public.</b>
<b>Objective 1.1</b> - Identify the public transportation needs of the general public.
<b>Objective 1.2</b> - Identify potential demand for public transportation services.
<b>Objective 1.3</b> - Compare needs, demands, service costs, and potential funding to determine financial feasibility.
<b>Objective 1.4</b> – Examine the capital and operating costs of proposed service enhancements and new services and potential funding in partnership with local government finance directors.
<b>Objective 1.5</b> – Identify potential funding sources for public transportation to supplant Federal and state funding prior to 2012.
<b>Goal 2: Implement the most cost effective and financially feasible additional public transportation services.</b>
<b>Objective 2.1</b> - Implement the most cost-effective types of public transportation services to meet the projected demand within specified service areas.
<b>Objective 2.2</b> - Ensure that all service meets the requirements of the Americans with Disabilities Act (ADA).
<b>Objective 2.3</b> – Provide a transit service that can be, through an established procedure, modified to meet the changing desires and needs of the community.
<b>Objective 2.4</b> – Provide regional transit connectivity along major transportation corridors.

**Table 3-1 – Public Transportation Mission Statement, Goals, and Objectives**

<p><b>Objective 2.5</b> - Implement circulator bus services identified and funded by local government partners.</p>
<p><b>Goal 3: Monitor service quality and maintain minimum standards or better.</b></p>
<p><b>Objective 3.1</b> - Maintain on-time performance of 92 percent.</p>
<p><b>Objective 3.2</b> - Establish and maintain a cost effective, financially feasible level of service that will meet public needs and expand as new markets are identified and funds become available.</p>
<p><b>Goal 4: Increase the visibility and utilization of public transportation services through marketing, education, improvement of existing services, and the development of new services.</b></p>
<p><b>Objective 4.1</b> - Conduct a pro-active and ongoing public outreach program to educate citizens and visitors about the availability and characteristics of existing and near-term future public transportation services.</p>
<p><b>Objective 4.2</b> - Develop an ongoing public involvement process through surveys, discussion groups, interviews, and public workshops.</p>
<p><b>Objective 4.3</b> - Market existing public transportation services as a travel option to specific market segments based on the characteristics and purpose of various services as they are implemented.</p>
<p><b>Objective 4.4</b> - Pursue marketing opportunities through community associations and clubs, e.g., newsletters, closed-circuit television in The Villages.</p>
<p><b>Objective 4.5</b> – Implement bus, shelter, and bench advertising based on approved contract with a vendor.</p>
<p><b>Objective 4.6</b> – Develop a uniform branding and marketing strategy for LakeXpress, Lake County Connection, and the South Lake Express services.</p>
<p><b>Objective 4.7</b> – Prepare LakeXpress stop design guidelines describing passenger amenities for stops of various sizes. Stop design guidelines will be promulgated by Lake County Public Transportation Division and local governments in negotiations with private developers.</p>

**Table 3-1 – Public Transportation Mission Statement, Goals, and Objectives**

<p><b>Goal 5: Coordinate public transportation services with planning efforts of affected local governments and organizations.</b></p>
<p><b>Objective 5.1</b> – Coordinate planning efforts to provide transit needs and improvements in growth areas by integrating into the development review process.</p>
<p><b>Objective 5.2</b> – Coordinate planning and programming efforts with Lake~Sumter MPO.</p>
<p><b>Objective 5.3</b> - Coordinate transit planning efforts into long-term planning efforts of the relevant local and state agencies, governments, and organizations.</p>
<p><b>Objective 5.4</b> - Coordinate planning efforts with local human services agencies.</p>
<p><b>Goal 6: Ensure the mobility needs of the transportation disadvantaged population in Lake County are identified and met using financially feasible service options.</b></p>
<p><b>Objective 6.1</b> - Ensure the availability of cost effective, financially feasible transportation in Lake County.</p>
<p><b>Objective 6.2</b>- Support public transit and human services agencies coordination efforts to reduce service duplication.</p>
<p><b>Goal 7: Maximize the use of all funding sources and services, public and private, in meeting the need for general public transit services.</b></p>
<p><b>Objective 7.1</b> - Coordinate with all public, quasi-public, and non-profit entities in order to maximize all potential funding opportunities for public transportation services in Lake County.</p>
<p><b>Objective 7.2</b> - Educate the general public and local decision makers on the importance of public transportation and the need for local financial and administrative support.</p>
<p><b>Objective 7.3</b> - Identify and accommodate opportunities for private sector participation in funding the public transportation system.</p>

**Table 3-1 – Public Transportation Mission Statement, Goals, and Objectives**

<p><b>Goal 8: Encourage land use patterns that support and promote transit patronage through the clustering of mixed uses and other transit-oriented designs in medium and large scale planned developments.</b></p>
<p><b>Objective 8.1</b> - Adopt and promote a model land development regulation that encourages transit patronage through transit-oriented development.</p>
<p><b>Objective 8.2</b> - Identify opportunities to educate the real estate development community regarding the economic benefits inherent in mixed-use developments.</p>
<p><b>Objective 8.3</b> - Develop incentives for developers and major employers to promote public transportation (e.g., impact fee credits to developers for transit infrastructure).</p>
<p><b>Objective 8.4</b> - Improve connectivity of sidewalks and bicycle facilities along existing and future public transportation corridors.</p>
<p><b>Objective 8.5</b> – Adopt and promote a land development regulation that requires transit amenities to be provided in new developments.</p>
<p><b>Objective 8.6</b> – Implement bus, shelter, and bench advertising based on an approved contract with a vendor as a revenue source.</p>
<p><b>Goal 9: Coordinate LakeXpress improvements with transportation planning efforts of all government entities.</b></p>
<p><b>Objective 9.1</b> – Ensure that public transportation is related to growth management discussions and processes including proportionate share of development impact funding for capital and operating of public transportation services.</p>
<p><b>Objective 9.2</b> – Initiate planning strategies to provide transit service in projected growth areas of the County.</p>
<p><b>Objective 9.3</b> – Coordinate with local governments’ capital improvement elements for the construction of accessible sidewalks, bus stops, and transit improvements along existing roadways.</p>

**Table 3-1 – Public Transportation Mission Statement, Goals, and Objectives**

<p><b>Objective 9.4</b> – Continue to coordinate with state and local transportation agencies to integrate transit needs/amenities into the land use planning and development process.</p>
<p><b>Objective 9.5</b> – Continue to ensure the coordination of all comprehensive plans and other related planning documents.</p>
<p><b>Objective 9.6</b> – Encourage local government to maintain higher densities near arterial and urban collector public transportation corridors.</p>
<p><b>Objective 9.7</b> – Encourage local government to remove land-use barriers that may restrict the use of public transportation.</p>
<p><b>Objective 9.8</b> – Review new development and redevelopment applications with a focus on public transportation-compatible designs (e.g., parking lot size, building approaches, transportation demand management, shelters, bike racks, and sidewalks).</p>
<p><b>Objective 9.9</b> – Coordinate with the Florida Department of Transportation and other agencies related to rail development of passenger rail service into, adjacent to, and within Lake County.</p>

### **3.3 Transportation Disadvantaged Service Goals, Objectives, and Strategies**

The proposed goals, objectives, and strategies for the Transportation Disadvantaged program in Lake County are presented in **Table 3-2**. These proposed goals were updated based on the goals, objectives, and strategies presented in the TDP/TDSP adopted in 2005. For each of the goals, objectives, and strategies, there are identified responsible parties, recommended timeframes for implementing the strategies, and measures to determine whether goals and objectives are being achieved.

**Table 3-2 – Transportation Disadvantaged Service Goals, Objectives, and Strategies**

<b>Goal 1: Provide for the expansion of the coordinated transportation system as necessary to meet the demand and needs of the transportation disadvantaged.</b>				
<b>Objectives</b>	<b>Strategies</b>	<b>Measures</b>	<b>Responsible Parties*</b>	<b>Time frame</b>
1. Purchase vehicles using Federal, state, and local grants to provide the needed vehicle capacity to meet the demand for transportation disadvantaged services.	· Monitor demand versus available vehicle capacity as part of performance monitoring system.	· Sufficiency of vehicle inventory in terms of quantity, capacity, and quality based on available capital grants.	CTC	Ongoing
2. Provide the needed personnel to operate, maintain, and administer the coordinated system to meet the demand for transportation disadvantaged services.	· Maintain adequate staffing needs to operate, maintain, and administer all coordinated system functions.  · Ensure that all staff are appropriately experienced and trained to perform their duties in the best, most effective manner possible.	· Sufficiency of staff in terms of quantity, necessary skills, experience, and quality.  · Implementation of various training programs for staff to enable and promote continuing education & refresher training opportunities.	CTC/Service provider	Ongoing
3. Identify & apply for appropriate Federal, state, local, and private funding to support the coordinated system.	· Pursue all appropriate funding opportunities from Federal, state, local, and private sources.	· Identification of new grants or other funding sources that can be applied to coordinated systems.	CTC/LCB	Ongoing

\* CTC – Community Transportation Coordinator  
LCB – Local Coordinating Boards

**Table 3-2 – Transportation Disadvantaged Service Goals, Objectives, and Strategies**

<b>Goal 2: Provide for the most cost-effective provision of transportation disadvantaged services.</b>				
<b>Objectives</b>	<b>Strategies</b>	<b>Measures</b>	<b>Responsible Parties</b>	<b>Time frame</b>
1. Maximize the multi-loading of vehicle trips to reduce the cost per trip and maximize efficiency.	· Purchase/install new scheduling software and have appropriate staff trained to ensure effective multi-loading on as many trips as possible.	· Monitor passengers per revenue hour. The annual average should not fall below 1.7 passengers per hour.	CTC/Service provider	Ongoing
<b>Objectives</b>	<b>Strategies</b>	<b>Measures</b>	<b>Responsible Parties</b>	<b>Time frame</b>
2. Minimize costs required to operate and administer transportation disadvantaged services.	· Ensure the efficiency of all aspects of service operation while maintaining overall effectiveness.	· Continue to monitor minimum standards for cost efficiency measures including: OTP, accidents, road calls, cost per trip, and increases in fixed-route ridership.	CTC/Service provider	Ongoing
<b>Goal 3: For all transportation disadvantaged and fixed-route services that are provided, ensure that a high level of service quality is provided, maintained, and improved or necessary.</b>				
<b>Objectives</b>	<b>Strategies</b>	<b>Measures</b>	<b>Responsible Parties</b>	<b>Time frame</b>
1. Maintain on-time performance of 92 percent.	· Maintain sufficient drivers and staff.	· Monitor staffing levels to assure on-time performance.	Service Provider / CTC	2009/2010
	· Purchase new County-owned reservation and scheduling software.	· Software purchased and in use.		2009/2010



**Table 3-2 – Transportation Disadvantaged Service Goals, Objectives, and Strategies**

<b>Objectives</b>	<b>Strategies</b>	<b>Measures</b>	<b>Responsible Parties</b>	<b>Time frame</b>
2. Maintain the quality of vehicles.	<ul style="list-style-type: none"> <li>· Replace old, high mileage vehicles with new vehicles from available Federal, state, local grants</li> <li>· Require Contract Service Provider to provide replacement vehicles as may be required by contract.</li> </ul>	<ul style="list-style-type: none"> <li>· All financially feasible capital assistance grants for vehicles identified and applications submitted.</li> <li>· Service Provider owned fleet replacement vehicles available as may be identified by contract.</li> </ul>	CTC/LCB/ Service Provider	Ongoing
3. Maximize customer comfort and safety.	<ul style="list-style-type: none"> <li>· Randomly select a preset number of riders each month to conduct a post-trip rider phone survey.</li> </ul>	<ul style="list-style-type: none"> <li>· Development of survey.</li> <li>· Analysis of results.</li> <li>· React to suggestions and complaints.</li> </ul>	CTC/Service provider	Ongoing
<b>Goal 4: Increase the visibility and utilization of public transportation services through marketing, education, improvement of existing services, and the development of new services.</b>				
<b>Objectives</b>	<b>Strategies</b>	<b>Measures</b>	<b>Responsible Parties</b>	<b>Time frame</b>
1. Continue efforts to inform the public about available transportation service.	<ul style="list-style-type: none"> <li>· Update and distribute schedules and system information.</li> </ul>	<ul style="list-style-type: none"> <li>· Maintain log of distribution locations.</li> <li>· Replenish schedules on a regular basis.</li> </ul>	Service Provider / CTC / LCB	Ongoing
	<ul style="list-style-type: none"> <li>· Pursue marketing opportunities through community associations and clubs, e.g., newsletters and closed circuit television in The Villages.</li> </ul>	<ul style="list-style-type: none"> <li>· Schedule presentations at community associations.</li> <li>· Meet with coordinator of closed circuit television at The Villages.</li> </ul>		

**Table 3-2 – Transportation Disadvantaged Service Goals, Objectives, and Strategies**

<b>Goal 5: Maximize the coordination of transportation services for the transportation disadvantaged, social service organizations, and Medicaid-sponsored transportation.</b>				
<b>Objectives</b>	<b>Strategies</b>	<b>Measures</b>	<b>Responsible Parties</b>	<b>Time frame</b>
1. Reduce the duplication of transportation disadvantaged services provided within and to areas outside the County.	· Pursue coordination with other transportation providers in Lake County and other counties (e.g., Marion, Orange, Osceola, Polk, Seminole, Sumter, Volusia) to provide access to more cost-effective service.	· Meet with transportation representatives from neighboring counties.	CTC	Ongoing
2. Continue to attempt to bring all of the social service organizations that provide transportation into the coordinated system through purchase of service contracts, coordination contracts, and/or joint-use agreements.	· Ensure cooperation between all social service transit providers, including private sector providers, and the CTC.	· Increase coordination contracts with all providers.	CTC/LCB	Ongoing
<b>Goal 6: Ensure that the cost-effective, financially feasible mobility needs of the transportation disadvantaged population in Lake County are identified and met.</b>				
<b>Objectives</b>	<b>Strategies</b>	<b>Measures</b>	<b>Responsible Parties</b>	<b>Time frame</b>
1. Identify and address work transportation needs.	· Explore opportunities to provide group trips for shopping and employment.	· Group trips identified and in place.	CTC/LCB	2010 and ongoing

**Table 3-2 – Transportation Disadvantaged Service Goals, Objectives, and Strategies**

<b>Goal 7: Encourage land use patterns that encourage transit patronage through the clustering of mixed uses and other transit-oriented designs in medium and large scale planned developments.</b>				
<b>Objectives</b>	<b>Strategies</b>	<b>Measures</b>	<b>Responsible Parties</b>	<b>Time frame</b>
1. Improve connections of public transportation to other modes of transportation.	· Improve transit-supportive infrastructure along existing and future public transportation corridors.	· Increase availability and connectivity of sidewalks and bicycle facilities along routes.	County /MPO / Cities	Ongoing
2. Improve the local knowledge of the benefits of transit-friendly land use.	· Support land development regulations that encourage transit-friendly development.	· Increased involvement by transit advocates in development approval process.	County /MPO / Cities	Ongoing

## **Section 4.0 Consistency with Other Plans and Documents**

In accordance with *Section 14-73.001(3)(f)* of the *Florida Administrative Code*, the TDP has been evaluated for consistency with other plans, programs, and strategies. The implementation plan identified in this TDP is consistent with the Florida Transportation Plan, the Lake County Comprehensive Plan, 14 municipal comprehensive plans, the MPO's long-range transportation plan, and the regional planning council's regional transportation goals and objectives. In addition, the ten-year implementation strategies identified in this TDP are evaluated in the context of these other local plans. As such, this section provides a summary of existing plans, programs, and documents that are or may be relevant to the preparation of the TDP for Lake County.

### ***4.1 Long-Range Planning Documents and Policies***

The review of other long-range planning documents ensures consistency, coordination, and understanding of other transportation planning and programming activities that were recently completed or are in the process of being developed.

#### ***4.1.1 Florida Transportation Plan***

The 2025 Florida Transportation Plan (FTP) goals, objectives, and strategies emphasize the importance of Florida's transportation system for meeting the mobility needs, creating a more competitive economy, building great communities, and preserving our natural environment. It also provides guidance on how transportation investments should be focused during a time of constrained funding. The transportation strategies identified in this TDP are consistent with the FTP. In particular, this TDP will facilitate reduced travel by single-occupant vehicles, economic development opportunities, improving regional transportation access, reflects regional and community visions, improves mobility within communities, develops multimodal transportation systems, and expands transportation choices to maintain the performance of the Strategic Intermodal System (SIS) and other regionally significant facilities, and ensures that the transportation system is accessible to all users, including young, elderly, disabled, and economically disadvantaged persons.

#### ***4.1.2 East Central Florida Strategic Policy Plan***

The most recent East Central Florida Strategic Policy Plan, adopted in July 1998 and currently undergoing review, is a long-range guide for the physical, economic, and social development of a planning region. Included in the Plan are regional goals and policies. It provides a basis for the review of resources and facilities included in TDP's throughout

the region. **Section V** of the Plan addresses public transportation. The adopted TDP is consistent with this regional policy plan and will be considered during this update. Specifically, the transportation strategies identified in this TDP are consistent with the SRPP. In particular, this TDP will promote multimodal transportation options consistent with **Objective 5.1**. Specifically, the proposed strategies will attract more choice riders and reduce travel by single-occupant vehicles, create economic opportunities, and improve access. The TDP reflects regional and community values and improves mobility within communities and throughout the region to ensure that the transportation system is accessible to all users. Consistent with **Objective 5.3**, the TDP will help Lake County to develop service, route, and schedule improvements in response to identified and projected ridership needs.

#### ***4.1.3 Lake –Sumter 2025 Long Range Transportation Plan***

The 2025 Lake-Sumter Long Range Transportation Plan (2025 LRTP) was officially adopted on December 14, 2005, and was presented to the MPO Board in July 2006 for approval and transmittal to the FDOT and the State Clearing House. The 2025 LRTP was developed in conjunction with Lake County’s Comprehensive Plan, *Planning Horizon 2025*, and it identifies transportation improvements necessary to maintain adequate mobility and to accommodate the growth forecasted through 2025. These improvements were established through a comprehensive identification of highway, public transit, bicycle, pedestrian, and goods movement transportation needs and policies from the Counties.

#### ***4.1.4 Lake County Comprehensive Plan***

Pursuant to Chapter 163 of the Florida Statutes, every incorporated municipality and county in Florida is required to adopt a comprehensive plan. This comprehensive plan must be consistent with state and regional plans, and provides a long-term vision and list of priorities for achieving this vision at all levels of government. For communities with a population over 50,000, plans must include a transportation-related element that summarizes the existing and future transportation conditions, how those conditions relate to what the community considers the ideal transportation situation, and how they propose to get there. The Lake County Comprehensive Plan is the primary policy document concerning land use, transportation, and other planning categories for the County and was last amended in 2002.

These documents provide information that can be used in preparing the TDP, including the following:

- historical overview of public transportation in Lake County;
- inventory of existing transit services, including public and private;
- maps and schedules for existing transit providers in adjacent communities;
- discussion of existing paratransit services;
- analysis of Lake County transit services;
- map of locations for hospitals, post secondary schools, and shopping centers;
- demographic and residential characteristics in Lake County;
- the adopted goals and objectives from the Lake County Transportation Element; and
- proposed amendments and modifications to the goals and objectives of Lake County Comprehensive Plan.

#### ***4.1.5 City of Wildwood Long-Range Transportation Plan***

The City of Wildwood in Sumter County has undertaken a public involvement visioning effort to develop a needs plan for the city’s transportation system over a twenty-year planning horizon (see **Appendix B**). The Wildwood LRTP identifies preliminary improvements and proposed enhancements needed to provide for the area’s expected population and related traffic needs through the year 2030. The City of Wildwood is experiencing significant development including the Tri-County Villages Development of Regional Impact (DRI), the Villages of Sumter DRI, Southern Oaks DRI, Wildwood DRI, Pennbrook DRI, Landstone Communities DRI, and Renaissance Trails DRI. Based upon anticipated growth, the Wildwood LRTP identifies future goals of establishing multimodal transportation options (transit, sidewalks and multi-use trails) and establishing connections to adjacent communities. As such, the 2020 TDP is consistent with the identified goals for providing regional connectivity and investing in transit to support future growth.

#### ***4.1.6 How Shall We Grow? East Central Florida Regional Growth Vision***

*MyRegion.org* initiated the “*How Shall We Grow?*” campaign, an 18-month campaign involving nearly 20,000 residents of the Central Florida area created to determine a citizen’s vision for growth in the area through the year 2050. Three alternative land use scenarios were identified for evaluation by the region’s residents and community leaders; the scenarios each suggested future land use patterns: (a) development focused around

centers; (b) development focused along roadway corridors; and (c) intense development designed to maximize land conservation. Major themes and principles to guide growth policies in the region were identified for educational purposes. Elected officials from each of seven Central Florida counties, as well as state agencies, partnered with *MyRegion.org* to ensure that the shared vision would be considered in future policy decisions.

The Lake-Sumter MPO also worked with *MyRegion.org* to create a *2050 Population Centers Map* identifying locations and sizes of future development centers where development would be focused. While the 2050 horizon year is outside of the planning horizon of this TDP, the *2050 Population Centers Map* will guide future development decisions and should be considered as future transportation investments are made. Based upon the centers development scenario selected by Lake County, the FDOT conducted a highway capacity analysis of projected roadway congestion (details provided in **Appendix C**). Significant results of this study effort included a collective understanding that the region cannot afford to build enough roads to accommodate future growth and, even if the needed roadway improvements were affordable, the resultant development pattern is not desired. By 2025, the FDOT highway capacity analysis concluded that an additional 230 lane miles at a cost of about \$1.04 billion would be required in Lake and Sumter Counties to provide an adequate level of service. As a result, Lake County residents and elected officials endorsed the centers land development scenario which would focus development in existing community centers and transportation investments that reinforce community centered development. This 2020 Lake County TDP identifies transit corridors that connect existing community centers as suggested by the *How Shall We Grow?* Study and related analyses.

#### ***4.1.7 Florida 2060: A Population Distribution Scenario for the State of Florida***

Prepared for the 1000 Friends of Florida, the Geoplan Center at the University of Florida utilized GIS data to develop a visual representation and analysis of what land use in Florida is expected to look like in 2020, 2040, and 2060 if current development patterns persist. Assuming that current sprawl patterns continue, this study concluded that the following factors may adversely impact the Central Florida Region by 2060:

- Population growth and development of vacant land for urban uses is expected to reach unstable levels, resulting in a dramatic loss of agricultural lands, environmentally sensitive areas, and natural landscapes.

- It is expected that the area from Marion County southward through Osceola County will be almost entirely urbanized by 2060.
- Between 2020 and 2040, the population in the Orlando Metropolitan Statistical Area is expected to exceed available vacant land which would create spillover development effects for adjacent counties such as Lake County, Polk County, Osceola County, and Volusia County.
- Osceola County which includes the Four Corners area is ranked fifth in counties expected to undergo the most radical transformations by 2060.
- In 2060, small areas of Polk, Lake, and Sumter counties are expected to remain undeveloped, in large part due to their distance from transportation corridors.
- The I-75 and I-4 corridors are projected to be fully developed by 2060.
- Virtually all of the natural systems and wildlife corridors in this region will be fragmented, if not replaced, by urban development.

## ***4.2 Local Plans, Policies, and Studies***

Lake County and the Lake~Sumter MPO have completed a number of local transportation plans, policies, and studies. These studies were reviewed in conjunction with the development of this TDP.

### ***4.2.1 Lake-Sumter MPO Corridor Constraint Policy***

In an effort to maintain a cohesive vision throughout the region, the Lake-Sumter MPO released the Corridor Constraint Policy in February 2008 to guide future transportation and land use planning. The policy addresses several goals, one of which is to promote the migration toward additional capacity through mass transit improvements along arterial corridors. To meet the established goals, the policy limits the number of lanes on corridor roadways to two lanes, four lanes, and six lanes. **Appendix D** provides a list of the corridor roadways and their maximum lane capacity.

### ***4.2.2 Lake-Sumter MPO Regional Bus Circulator Assessment***

Released in May 2007, this study examines the geographic area in Lake County in order to determine needs for a bus circulator service. Areas identified in the study include the City of Clermont, The Villages DRI, and the US 27/US 192 Four Corners area. Operational issues as well as capital needs and a proposed five-year financial plan are identified and evaluated in this draft report (see **Appendix E**).



#### ***4.2.3 Transportation Concurrency Interlocal Agreement***

Realizing the need for growth management coordination among local governments within the planning area of the Lake~Sumter MPO, the MPO Board approved in September 2007 the distribution of an interlocal agreement to 17 local governments within the two-county region. The agreement proposed that the MPO would become the clearinghouse for all traffic data relative to transportation concurrency.

#### ***4.2.4 Lake-Sumter MPO Transit Operations Plan***

In response to the direction given in the TDP, Lake County developed the Transit Operations Plan (TOP) to guide the implementation of fixed-route transit services within the County. This TOP includes specific service policies, financial planning elements, and bus route scheduling and routing for the new Lake County fixed-route transit service. Lake County adopted its current TOP on October 17, 2006 (see **Appendix F**).

#### ***4.2.5 Florida Department of Transportation Emergency Operations Plan***

The Florida Department of Transportation has provided an Emergency Operations Plan for major public and private transportation providers within FDOT District Five, which includes Lake County. The Emergency Operations Plan provides and annually updates contacts for both public and private transportation providers that operate in the nine counties within District Five.

#### ***4.2.6 Lake County Public Transportation Substance Abuse Program***

In order to ensure a safe environment for passengers and employees of the County's public transportation system, as well as the safety of the general public, Lake County has adopted a Substance Abuse Program to address drug abuse and alcohol misuse by employees that are a part of the public transportation system. This Substance Abuse Program is in response to and in compliance with regulations published by the Federal Transit Administration (FTA) prohibiting drug and alcohol use by transit employees and requiring transit agencies to test for prohibited drug use and alcohol misuse, as part of the Omnibus Transportation Employee Testing Act of 1991.

#### ***4.2.7 Lake County Public Transportation System Safety Program Plan***

In compliance with *Chapter 14-90* of the *Florida Administrative Code*, Lake County has developed a System Safety Program Plan that meets the state's minimum safety standards for equipment and operations related to public transportation programs. The purpose of this plan is to provide for improved communication, documentation, and coordination within the entire system to decrease injuries, property damage, and delays in service.

### ***4.3 Transportation Disadvantaged Plans and Documents***

#### ***4.3.1 Lake County Transportation Disadvantaged Service Plan***

Last updated in November 2006, the Lake County TDSP provides the four major components that are required by the Florida Commission for the Transportation Disadvantaged (FCTD), including the Development Plan, Service Plan, Quality Assurance, and Cost/Revenue Allocation and Rate Structure Justification components (see **Appendix G**).

#### ***4.3.2 Florida Commission for the Transportation Disadvantaged***

The five- and 20-year plan of the FCTD identifies goals, objectives, and actions for the Commission to pursue in the next five- to 20-years. Included in the plan is a forecast of demand for transportation disadvantaged services, projected costs of meeting the demand, and estimated future funding. In addition, the 20-year plan provides a longer-term picture of transportation disadvantaged services in the State of Florida. The short and long-term plan of the FCTD will be considered throughout the development of the TDP. This TDP Update will continue to enhance the quality of transit services offered to transportation disadvantaged populations. In the near term, the TDP focuses on continuing to provide paratransit services, maintaining transit services in areas with significant transportation disadvantaged populations, and transitioning paratransit patrons to fixed route service, where appropriate. Longer term efforts will focus on enhancing existing fixed route services to make them more efficient and convenient.

#### ***4.3.3 Annual Performance Report from the FCTD***

The annual transportation disadvantaged performance reports prepared by the FCTD have been reviewed for Lake County for the years between 2002 through 2007. The performance reports provide an overview of the operating environment, the CTC, and other information related to the transportation disadvantaged program in Lake County. Statistics reported by Lake County Public Transportation in their Annual Operations Report are also provided in the FCTD Annual Performance Report, including service statistics, passenger trip information, a financial summary, and a graphical summary of performance indicators. This information was reviewed during the 2020 TDP update.

#### ***4.3.4 Annual Operations Report***

Each year, an *Annual Operations Report (AOR)* is submitted to the FCTD. The AOR for fiscal year 2002-2007 have been reviewed for this TDP update effort. The AOR is compiled by the CTC based on information from Lake County Public Transportation Division and other coordination contractors. Information submitted in the AOR is used to develop the Lake County section of the *Annual Performance Report* produced by the FCTD, as discussed previously.

#### ***4.3.5 Memorandum of Agreement (Transportation Disadvantaged Services in Lake County)***

The fully-executed Memorandum of Agreement between the FCTD and Lake County Board of County Commissioners designates the Board as the Community Transportation Coordinator (CTC). This agreement specifies the responsibilities pertaining to the provision of transportation disadvantaged services in Lake County. One requirement identified in the agreements specifies that the CTC “shall arrange for all services in accordance with *Chapter 427, Florida Statutes*, and *Rule 41-2, Florida Administrative Code*.” The agreement also requires the preparation of a TDSP for approval by the Local Coordinating Board and the FCTD which will be completed as a separate planning effort. Numerous other requirements are identified in the agreement that is made as a basis for the provision of funding.

#### ***4.3.6 Lake County Community Transportation Coordinator Operations Manual***

The *Lake County Community Transportation Coordinator Operations Manual* establishes the Community Transportation Coordinators’ daily operation guidelines for the Transportation Disadvantaged Program. This manual is designed to enhance the delivery of transportation services within Lake County and addresses issues ranging from employee standards to vehicle inspection and operations to passengers with disabilities.

### ***4.4 Conclusion***

A wide range of public transportation improvements are discussed in **Chapter 8** of this TDP and were presented to the community. Options included bus rapid transit, light rail, and commuter rail. Transit improvements were developed with a focus on serving transportation disadvantaged populations. Some options enhanced existing fixed-route services and others created new local and regional connections between homes and jobs.

## Section 5.0 Baseline/Existing Conditions

This section provides an overview of the service area characteristics, including existing LakeXpress service, population and demographics for the years 2000 and 2020, transportation disadvantaged population for the year 2000, as well as transit supportive areas based on household and employment density for the years 2005 and 2020.

### 5.1 Ridership

Lake County began fixed-route service called LakeXpress in May 2007, after completing the 2005 TDP. As shown on **Figure 5-1**, three fixed-routes currently operate in Lake County. These services include Route 1 – the Cross County Connector, Route 2 – the Leesburg Circulator, and Route 3 – the Mount Dora Circulator. Routes 1 and 2 began service in May 2007, while Route 3 started service in July 2008. LYNX existing transit services are also presented below on **Figure 5-2**.

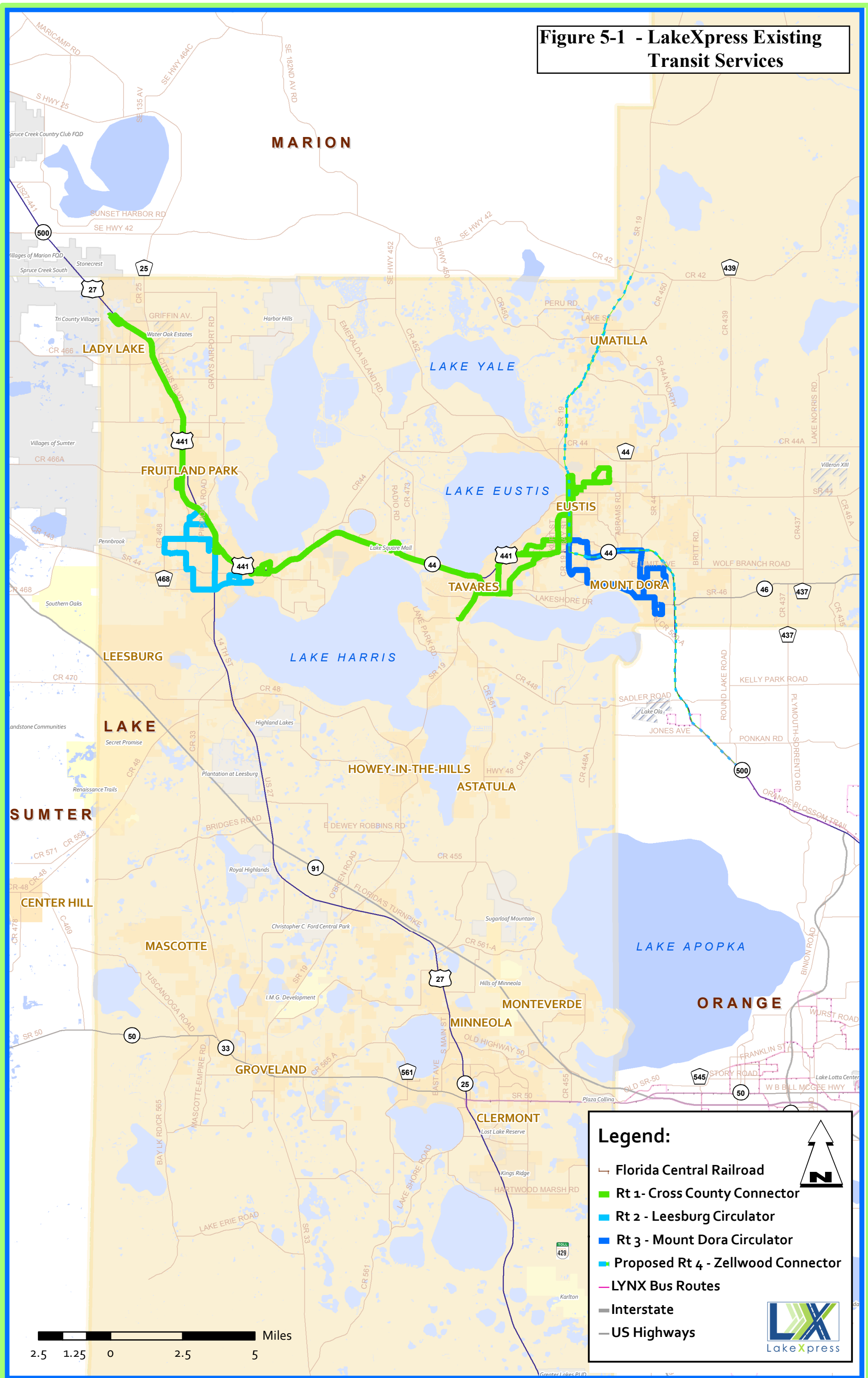
Ridership data is available for all routes from May 2007 through May 2008 and is illustrated on **Figure 5-3**.<sup>4</sup> It should be noted that although Routes 1 and 2 began service in May 2007, fare collection (\$1.00) was not implemented until August 2007. This implementation approach allowed a broad spectrum of riders to try the service fare-free but once the fare collection was implemented there was a notable decrease in ridership in September 2007 (4,550 riders). Ridership has since increased but it has not returned to the high of 10,913 riders in July 2007.

The difference between the peak fare-free ridership and average ridership since fare collection indicated that there are more people who could be served by this service. Generally, the gap between fare and fare-free ridership can be accounted for largely by three (3) groups. First, there are people who can drive but were curious about transit service and tried it for free (i.e. choice riders). Second, there are people who cannot drive due to age or ability and wanted to try transit service for free (i.e. transit-dependent riders). This group may currently rely on carpools or other drivers as a means of meeting their transportation needs. Third, there may be a group who needs transit service but cannot afford the fare (also, transit-dependent riders). Part of this assessment is to determine whether transit service can be modified to better meet the needs of these three groups to improve their mobility and increase cost-effectiveness.

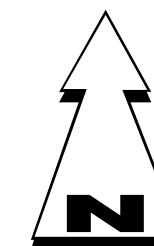
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<sup>4</sup> No ridership, cost, or performance statistics were available for Route 3 during completion of this TDP Update. For the purposes of this technical analysis, data pertaining only to Routes 1 and 2 were used.

**Figure 5-1 - LakeXpress Existing Transit Services**



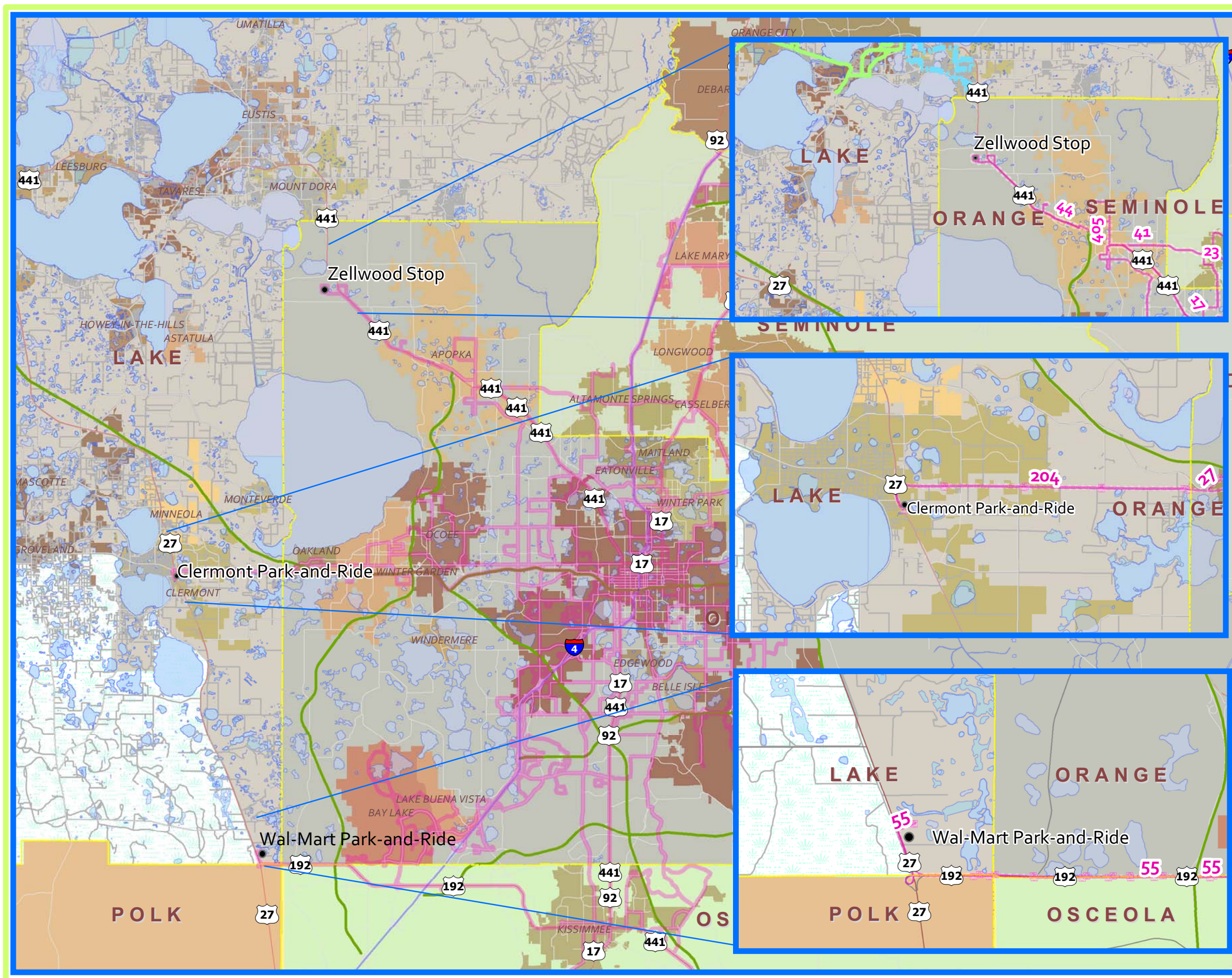
# LYNX EXISTING TRANSIT SERVICES



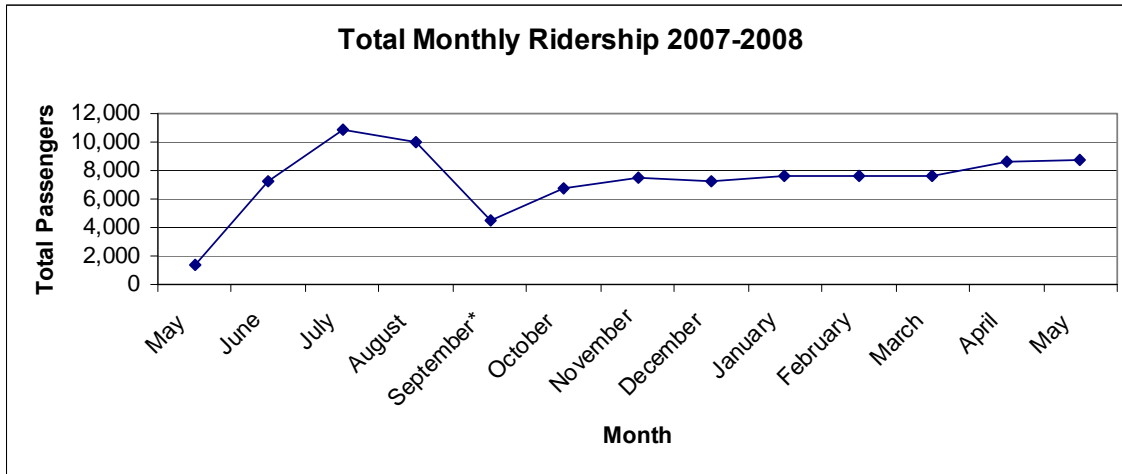
## Legend:

### LYNX Existing Transit Services

-  County Boundaries
-  LYNX Fixed Route Service
-  Interstate
-  Toll Roads
-  US Highways
-  Water Bodies



**Figure 5-3 – Total Monthly Ridership (Actual 2007-2008)**



Source: Lake County Public Transportation Manual Passenger Counts, May 2008.

Details regarding total monthly ridership displayed by route level ridership are displayed in **Table 5-1**. As expected, Route 1 – the Cross County Connector serves more riders than Route 2 – the Leesburg Circulator; however, it is important to note that Route 1 has four buses operating on the route; whereas, Route 2 only uses one bus.

**Table 5-1 – 2007-2008 Total Monthly Ridership by Route**

Month	Route 1	Route 2	Total
May	1,188	204	1,392
June	5,338	1,923	7,261
July	8,003	2,910	10,913
August	7,253	2,722	9,975
September	3,369	1,181	4,550
October	4,958	1,759	6,717
November	5,575	1,974	7,549
December	5,352	1,932	7,284
January	5,694	1,925	7,619
February	5,286	1,964	7,608
March	5,799	1,858	7,657
April	6,263	2,397	8,660
May	6,366	2,375	8,741

Source: Lake County Public Transportation Manual Passenger Counts, May 2008.

## 5.2 Population

As identified in the 2005 TDP, the population of Lake County grew 58 percent between the years 1990 and 2003 from 152,124 to 240,716. In 2006, the population was estimated

at 290,000, a 38 percent increase from the 2000 Census data. **Table 5-2** below displays the Lake County population data for 1990, 2000, 2003, and 2006 relative percent changes.

**Table 5-2 – Lake County Population**

Year	Population	%Δ1990	%Δ 2000	%Δ 2003
1990	152,124			
2000	210,527	38%		
2003	240,716	58%	14%	
2006	290,000	91%	38%	20%

*Source: 2005 Lake County TDP, American Fact Finder*

The Metro Orlando Economic Development Commission projects that the population of Lake County will be 319,321 in 2010, which is a 52 percent increase in population from the 2000 Census. Because new census data will not be collected until 2010, the demographic and journey to work data from the previous TDP is unchanged. Demographic and journey to work characteristics from the U.S. Census are provided in **Appendix H**.

### **5.3 Transportation Disadvantaged (From 2000 Census)**

Chapter 427, Florida Statutes, provides for special transportation and communications services for certain Florida citizens. Part I of this chapter relates to services provided to the “[t]ransportation disadvantaged,” that is, “those persons who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon 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”[.]<sup>5</sup>

There are several demographic characteristics that identify those areas of Lake County where a greater number of residents would be more likely to use transit. These characteristics include individuals age of 15 or less, or age 60 years or more; as well as households with no access to a vehicle or an income of \$10,000 or less. These individuals and households are termed transportation disadvantaged because they do not have many transportation choices.

<sup>5</sup> Fla. Stat. § 427.011 (2008).



County TDP remains unchanged. This census data is considered the most reliable source for the study area. Accordingly, another data source was not pursued. Maps have been prepared to display the transportation disadvantaged census blocks in Lake County, as shown on **Figures 5.4 to 5.7**. The newly established Leesburg Circulator, the Cross County Connector, LYNX Express Routes and the proposed Mount Dora Circulator are also displayed on these maps.

### **5.3.1 Population Under Age 15**

According to the 2000 Census data, the City of Leesburg has a census block where 31 to 37 percent of the population is age 15 or less that is served by the Leesburg Circulator. Additionally, the City of Eustis has one census block where 31 to 37 percent of the population is age 15 or younger. This area is served by the Cross County Connector. A final census block with 31 to 37 percent of the population age 15 or younger is located in the northeastern portion of the County, south of CR 42 and east of CR 439. This is a primarily rural region of the County with no fixed-route service.

### **5.3.2 Population Over Age 60**

Lake County has a growing population over the age of 60. In 2000, census blocks with 76 to 100 percent of the population age 60 or above were located in The Villages in the northwest corner of the County; Leesburg north of US 441 and east of CR 44; and Tavares south of US 441 and west of SR 19. These areas are all served by the LakeXpress Cross County Connector. Another census block with greater than 75 percent of the residents age 60 and above is located south of Leesburg, east of US 27 and north of CR 48. This area is not currently served by fixed-route bus service.

### **5.3.3 Households with Income \$10,000 or less**

Households earning an income of \$10,000 or less in Lake County are also dependent on transit. North of US 441 in Tavares and east of CR 473, 31 to 43 percent of the household income is \$10,000 or less. This census block is currently served by the Cross County Connector. Downtown Leesburg also has a census block in this category that is served by the Cross County Connector and the Leesburg Circulator. There are a few census blocks in the County where 20 to 30 percent of the households earn an income of \$10,000 or less. These are located in Leesburg and Eustis, which are served by LakeXpress; as well as Clermont, which connects to the Clermont Express LYNX Route. There is also an area in northeast Lake County north of SR 44 and south of CR 42 adjacent to the Volusia

County line where 21 to 30 percent of the households earn \$10,000 or less and are not served by fixed-route bus service.

#### **5.3.4 Households with No Access to Vehicles**

There are two census blocks in Lake County where 31 to 44 percent of the households do not have access to a vehicle as of the 2000 Census. One is in Leesburg, where the LakeXpress Cross County Connector and Leesburg Circulator provide service. The second is in Clermont with access to the LYNX Clermont Express route to Orlando. Leesburg also has census blocks where 21 to 30 percent of the households have no access to a vehicle, which are served by the LakeXpress bus routes.

# PERCENT OF POPULATION UNDER 15 YEARS OLD

## Legend

Percent of Population  
15 Years Old or Less

- 0 - 10%
- 11 - 20%
- 21 - 30%
- 31 - 37%

- Mount Dora Circulator
- Leesburg Circulator
- Cross County Connector
- LYNX Rt. 204-Clermont Express
- LYNX Rt. 55-US 192

Source: 2000 Census

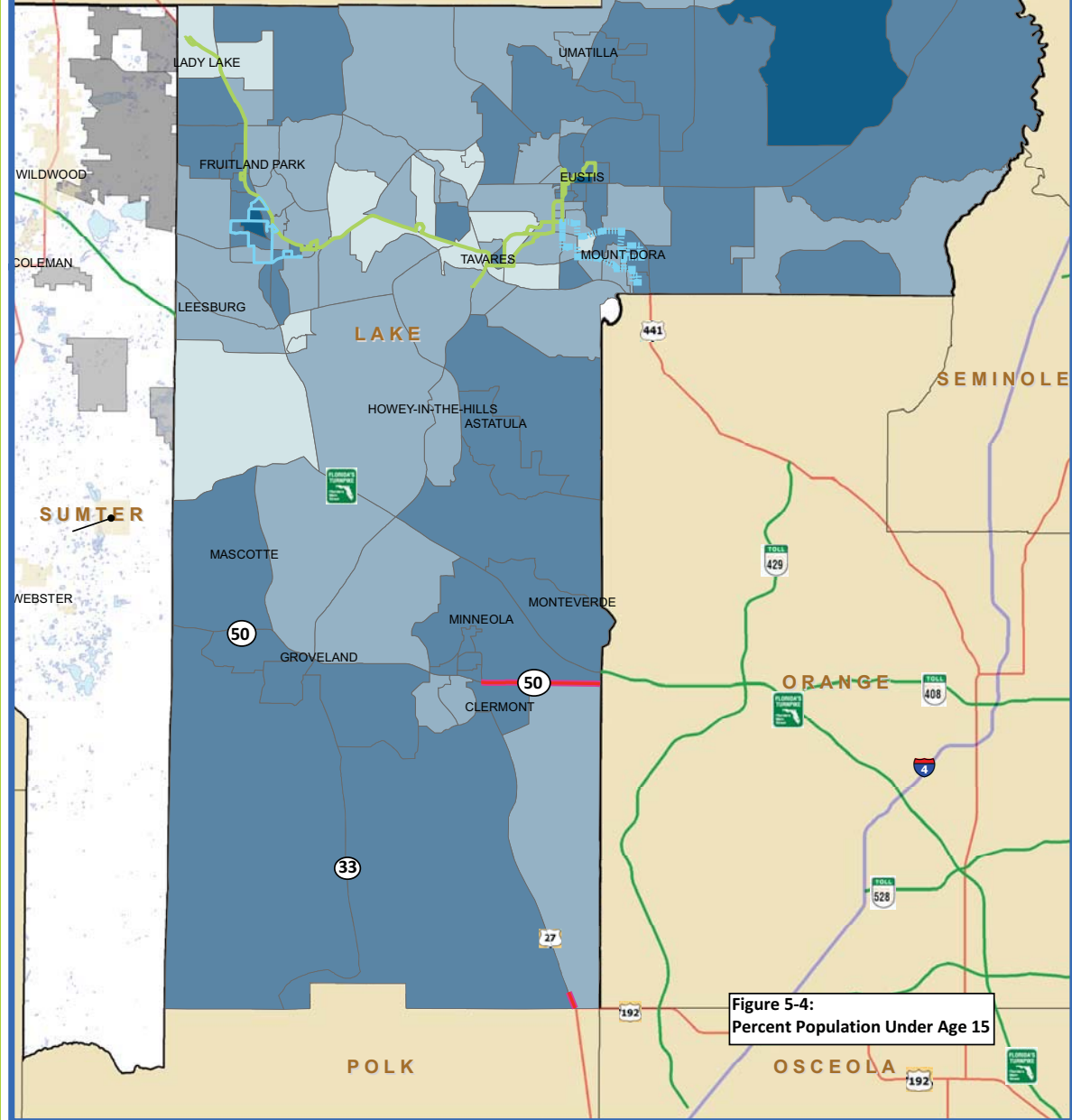


Figure 5-4:  
Percent Population Under Age 15

# PERCENT OF POPULATION AGE 60 AND ABOVE

## Legend

Percent of Population Age 60 and Above

- 9 - 25%
- 26 - 50%
- 51 - 75%
- 76 - 100%

- Mount Dora Circulator
- Leesburg Circulator
- Cross County Connector
- LYNX Rt. 204-Clermont Express
- LYNX Rt. 55-US 192

Source: 2000 Census

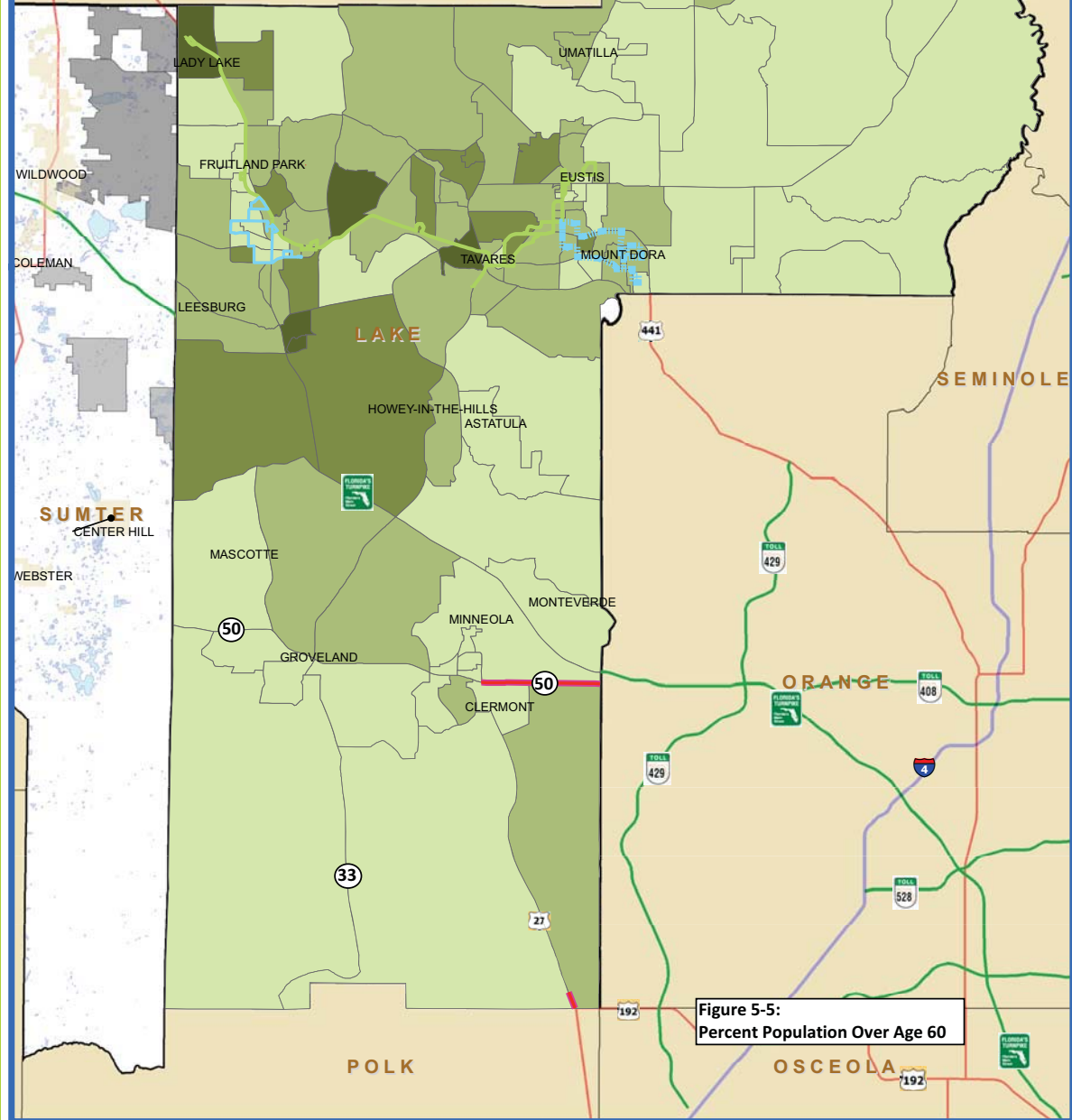


Figure 5-5:  
Percent Population Over Age 60

# Legend

Percent of Households  
Income of 10,000 or less

- 0 - 10%
- 11 - 20%
- 21 - 30%
- 31 - 43%

- Mount Dora Circulator
- Leesburg Circulator
- Cross County Connector
- LYNX Rt. 204-Clermont Express
- LYNX Rt. 55-US 192

Source: 2000 Census

# PERCENT OF HOUSEHOLDS INCOME BELOW \$10,000

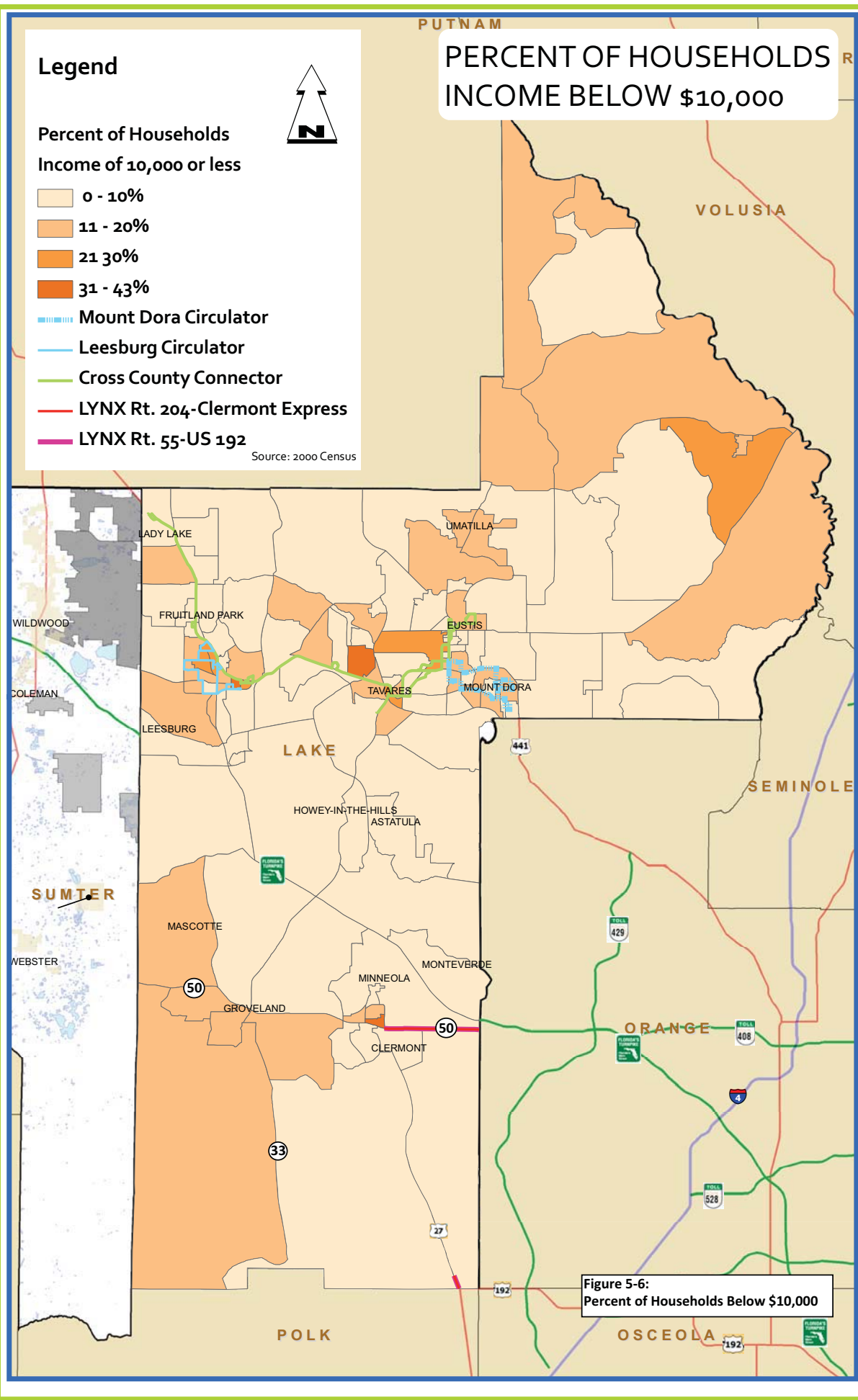
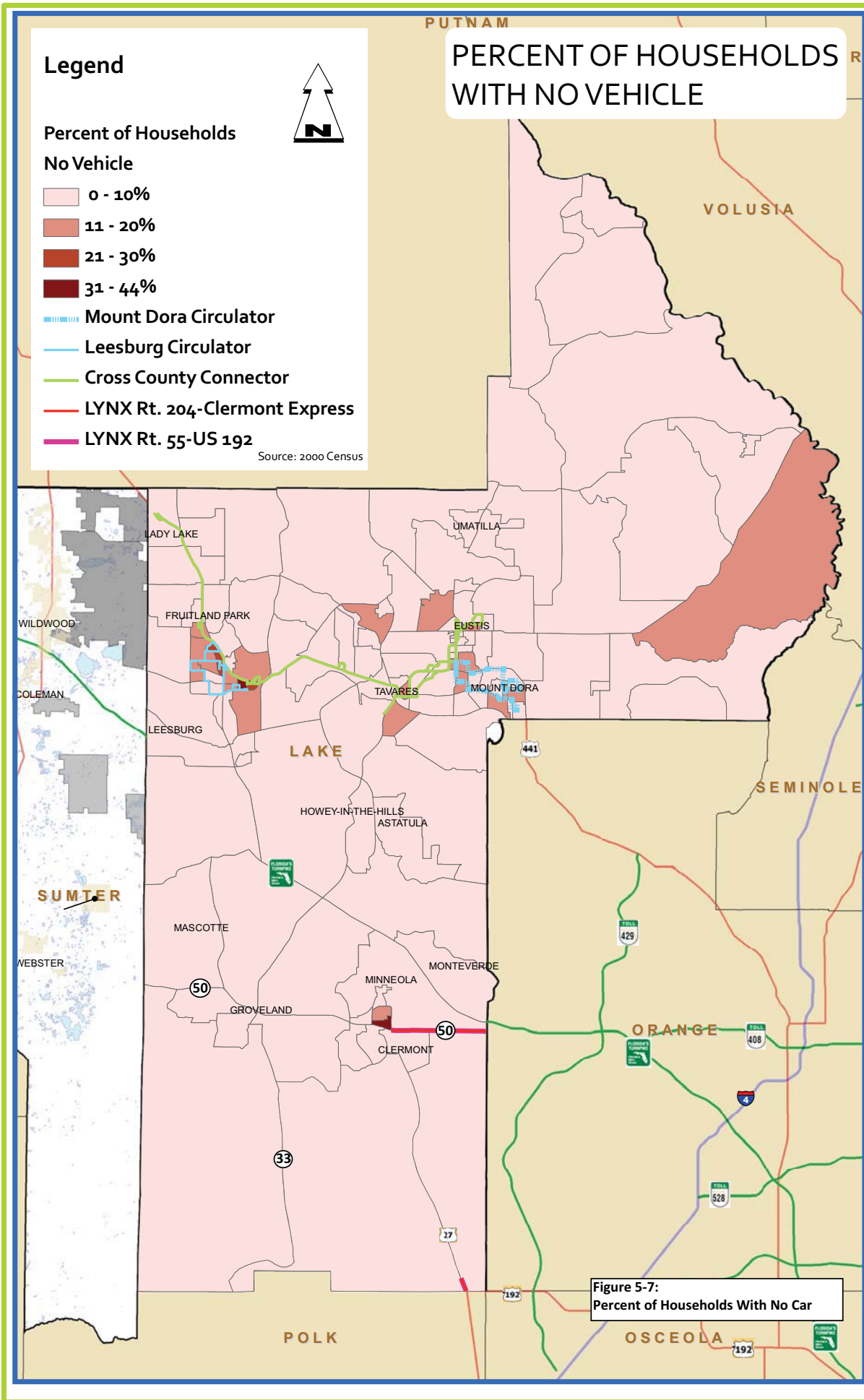


Figure 5-6:  
Percent of Households Below \$10,000



**Legend**

Percent of Households  
No Vehicle

- 0 - 10%
- 11 - 20%
- 21 - 30%
- 31 - 44%

- Mount Dora Circulator
- Leesburg Circulator
- Cross County Connector
- LYNX Rt. 204-Clermont Express
- LYNX Rt. 55-US 192

Source: 2000 Census

**PERCENT OF HOUSEHOLDS WITH NO VEHICLE**

**Figure 5-7:  
Percent of Households With No Car**

## 5.4 Transit Supportive Areas (TSA)

For mass transit to be successful there needs to be “mass” or density. Fixed-route transit services are generally most successful in areas with high household and employment densities. Consequently, household and employment densities are measures frequently used to indicate the potential for transit to succeed in a particular area. Thus, one means of identifying the need for transit is to locate the areas that have attained at least the minimum densities, or thresholds, sufficient to be supportive of fixed-route transit service. These areas are referred to as Transit Supportive Areas (TSA).

Transit Supportive Areas are estimated from density thresholds for 2005 and 2020 using household and employment data for each Traffic Analysis Zone (TAZ). This data is from the Lake-Sumter MPO *Long Range Transportation Plan*. The methodology for this approach was derived from the Transit Cooperative Research Program’s (TCRP) *Transit Capacity and Quality of Service Manual – 2<sup>nd</sup> edition* (2003), which identifies a density of three households per acre and/or four jobs per acre as the thresholds to qualify as a transit-supportive environment. **Figures 5.8 to 5.15** reveal households per acre and employees per acre by TAZ for the years 2005 and 2020. Included on these maps are the current and proposed LakeXpress bus routes as well as the LYNX routes 204 and 55. LYNX operates the Clermont Express (Route 204) into Orlando from the park and ride in Clermont at US 27/SR 25. A second LYNX route operates from the Four Corners area (where Lake, Polk, Orange, and Osceola counties come together) to Disney (Route 55) via U.S. 192 with a park and ride location at the Wal-Mart shopping center on US 27.

### 5.4.1 Household Density

In 2005, Transit Supportive Areas, which include TAZs with three or more households per acre, were located in Tavares south of US 441, as well as Mount Dora and Eustis along SR 19, as shown in the **Figure 1.8**. These TAZs are served by the current LakeXpress Routes. Additional TAZs with three or more households per acre are located north of Lake Eustis along CR 44 near Lisbon and Fort Mason. These TAZs are not served by fixed-route transit. TAZs with two to three households per acre are located in Mount Dora, which will be served by the proposed Mount Dora Circulator, as well as Leesburg, Eustis and The Villages, all of which are served by LakeXpress. Additionally, the area south of Lake Harris, east of US 27 and north of CR 48 has two to three households per acre, along with several TAZs in Minneola and Clermont, none of which have access to fixed-route bus service other than the Clermont Express. In 2020, several

more TAZs are projected to have two to three households per acre, including the area south of CR 470, west of the Florida Turnpike and east of the Sumter County line around the Secret Promise and Renaissance Trails Developments of Regional Impacts (DRIs), additional TAZs in Clermont and Minneola, as well as TAZs south of Clermont along US 27 and the Four Corners area.


#### **5.4.2 Employment Density**

Employment densities in 2005 were highest along the US 441 and SR 19 corridors currently served by LakeXpress, with eight to 17 employees per acre in Leesburg, Tavares, and Eustis. TAZs with four to eight employees per acre can be found along the LakeXpress routes on US 441, shown on **Figures 1-12 and 1-13**, as well as in Clermont and Minneola along SR 50, which are only served by the LYNX Clermont Express. In 2020, Leesburg, Tavares, Mount Dora, Eustis, Clermont, and Minneola continue to have high employment. Another TAZ emerges as an employment center on SR 50, at the Orange County line with four to eight employees per acre as a result of the Plaza Collina DRI. Further information about DRIs is provided in the next section, which discusses major travel generators in Lake County.



# HOUSEHOLD DENSITY 2005

**Legend**



**Total Households/Acre**

- Less than 1 Household/Acre
- 1-2 Households/Acre
- 2-3 Households/Acre
- Over 3 Households/Acre

**Mount Dora Circulator** ▬▬▬▬▬▬

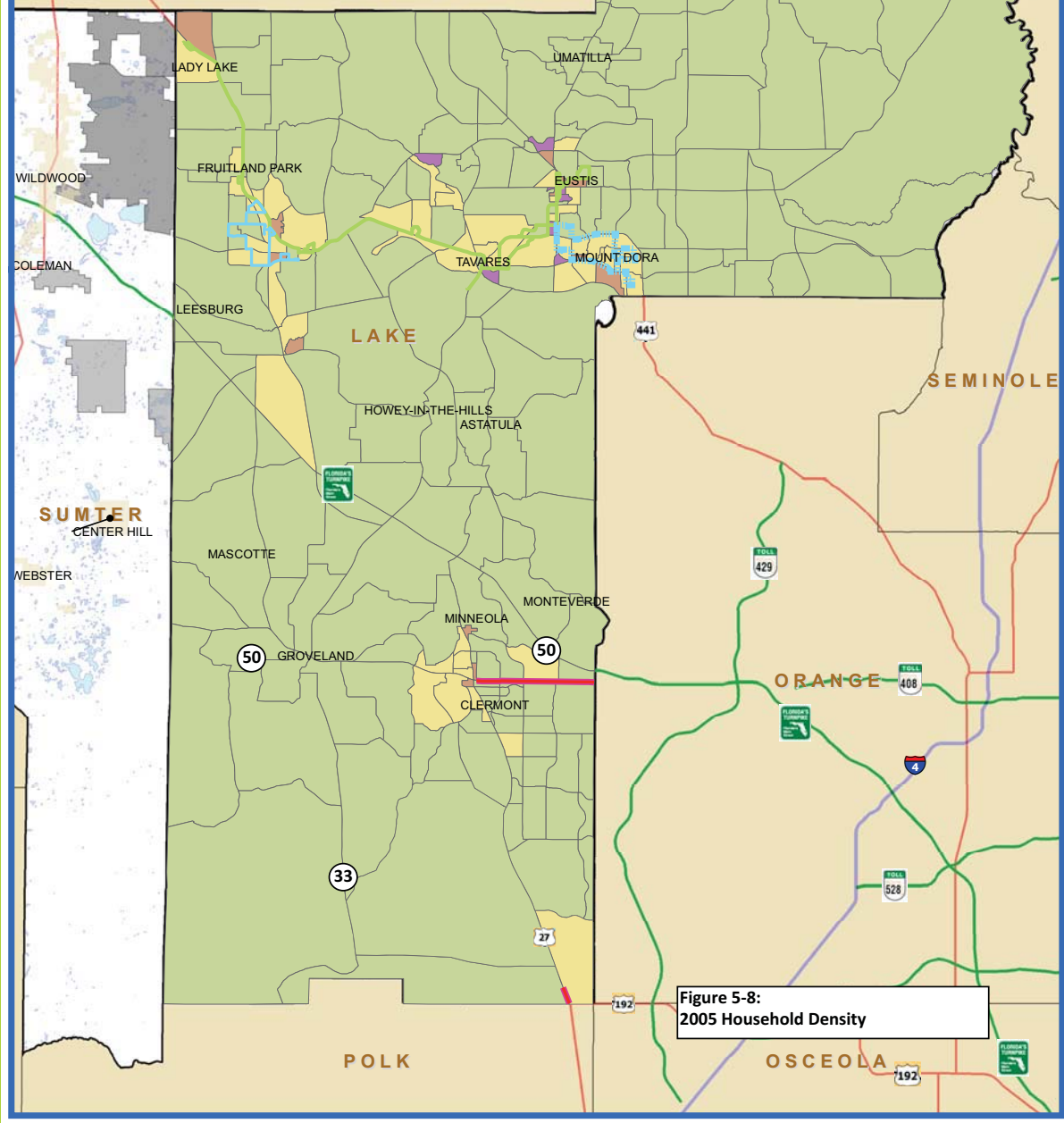
**Leesburg Circulator** ▬▬▬▬▬▬

**Cross County Connector** ▬▬▬▬▬▬

**LYNX Rt. 204-Clermont Express** ▬▬▬▬▬▬

**LYNX Rt. 55-US 192** ▬▬▬▬▬▬


Source: 2000 Census



**Figure 5-8:  
2005 Household Density**

# HOUSEHOLD DENSITY 2020

**Legend**

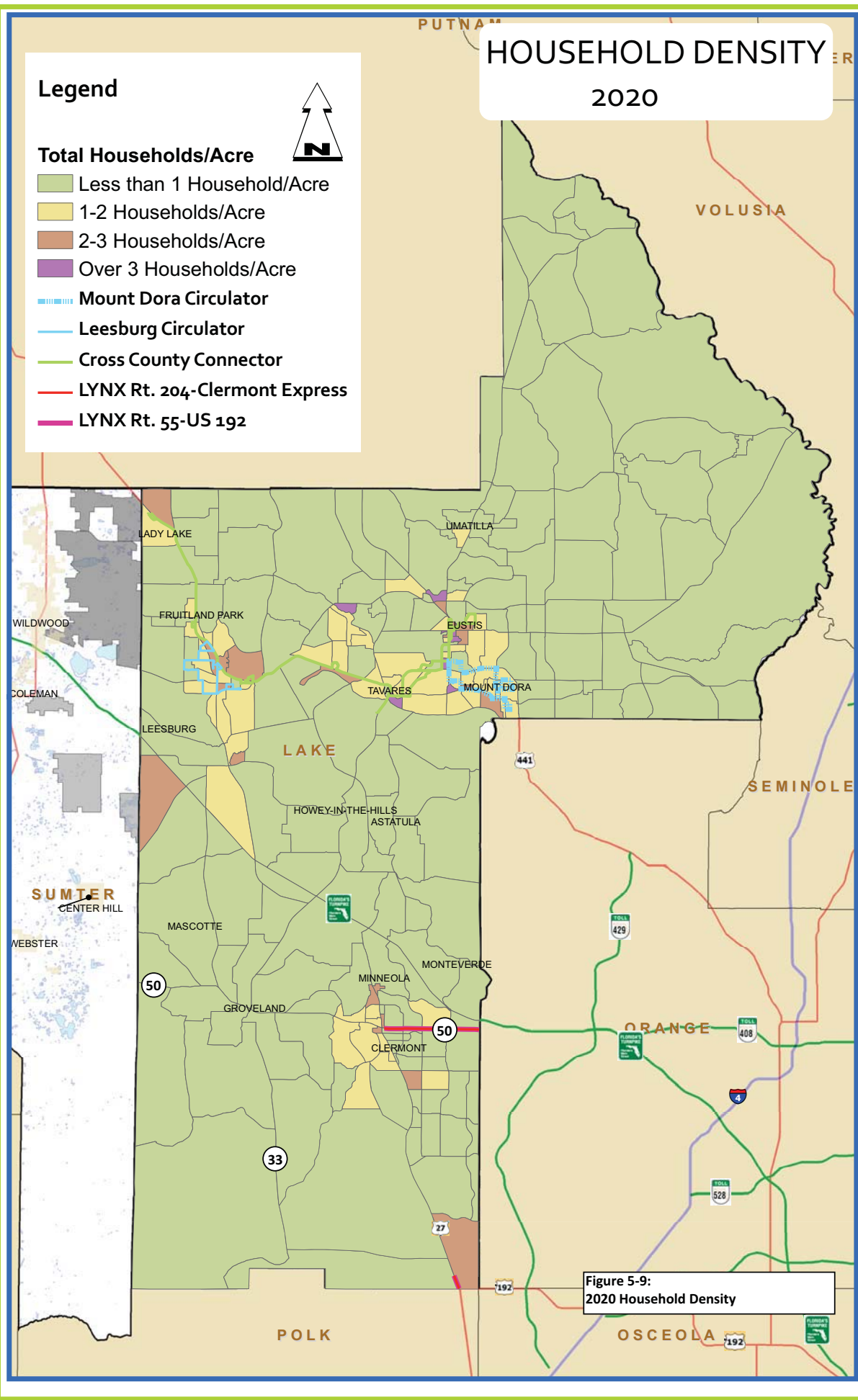


**Total Households/Acre**

- Less than 1 Household/Acre
- 1-2 Households/Acre
- 2-3 Households/Acre
- Over 3 Households/Acre

**Transportation Routes**

- Mount Dora Circulator
- Leesburg Circulator
- Cross County Connector
- LYNX Rt. 204-Clermont Express
- LYNX Rt. 55-US 192



**Figure 5-9:  
2020 Household Density**

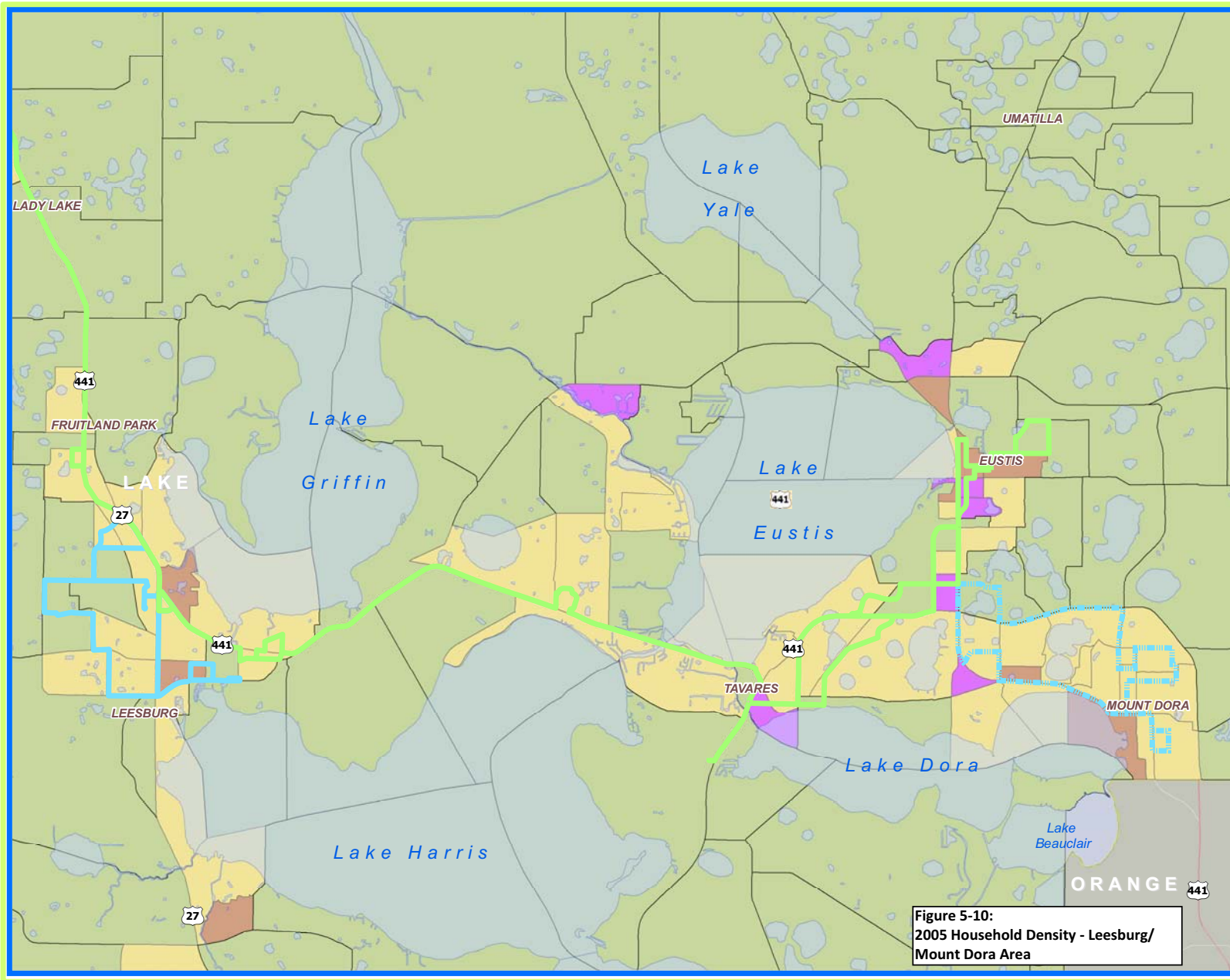
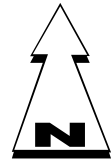


Figure 5-10:  
2005 Household Density - Leesburg/  
Mount Dora Area



## LEESBURG/MOUNT DORA 2005 HOUSEHOLD DENSITY

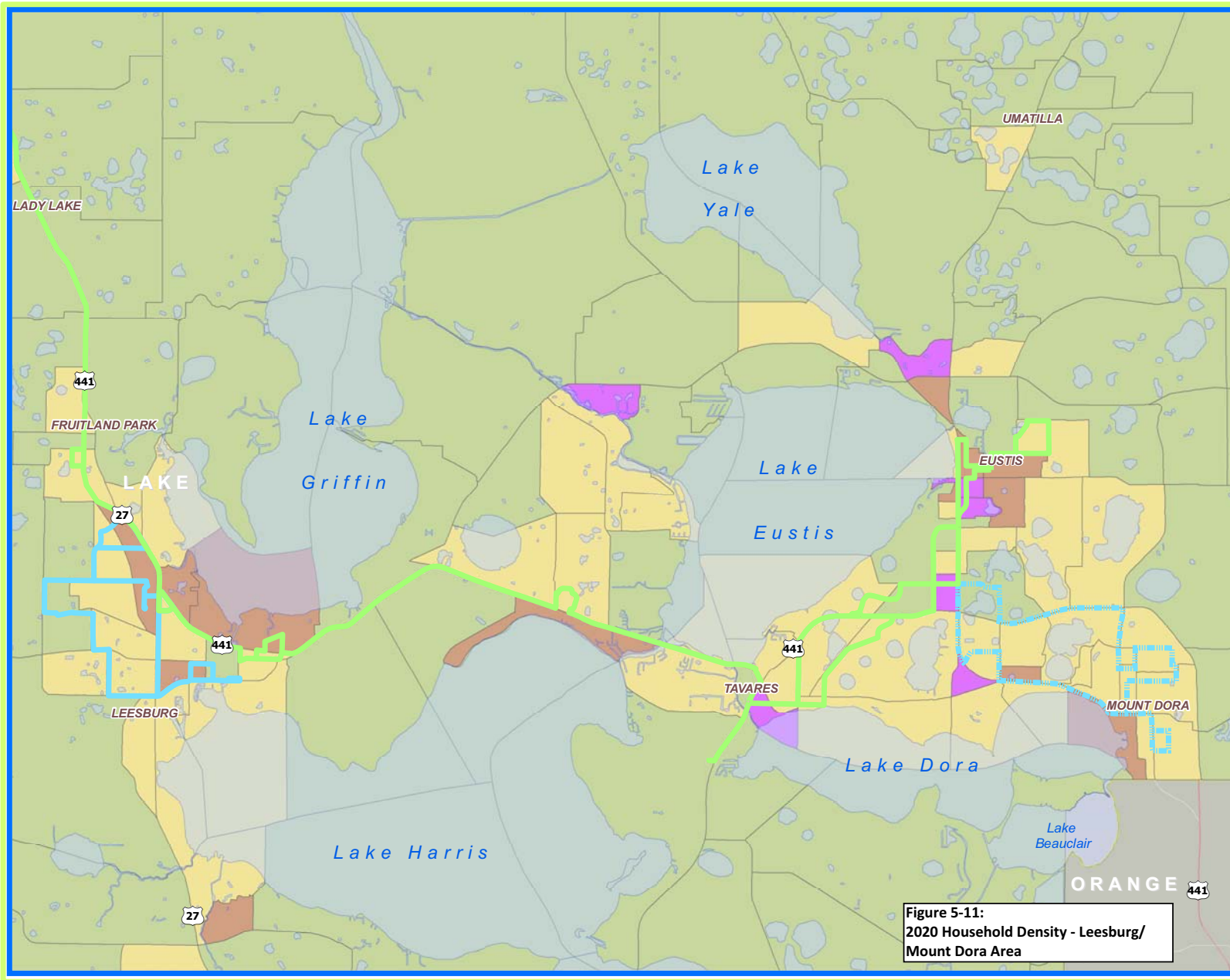


**Legend**

**Household Density (2005)**

- Less than 1 Household/Acre
- 1-2 Households/Acre
- 2-3 Households/Acre
- Over 3 Households/Acre
- Cross County Connector
- Leesburg Circulator
- Mount Dora Circulator

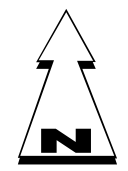




**Figure 5-11:**  
**2020 Household Density - Leesburg/  
 Mount Dora Area**



**LEESBURG/MOUNT DORA  
 2020 HOUSEHOLD DENSITY**



**Legend**

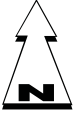
**Household Density (2020)**

- Less than 1 Household/Acre
- 1-2 Households/Acre
- 2-3 Households/Acre
- Over 3 Households/Acre
- Cross County Connector
- Leesburg Circulator
- Mount Dora Circulator



# EMPLOYMENT DENSITY 2005

**Legend**



**Total Employment/Acre**

- Less than 2 Jobs/Acre
- 2-4 Jobs/Acre
- 4-8 Jobs/Acre
- Over 8 Jobs/Acre

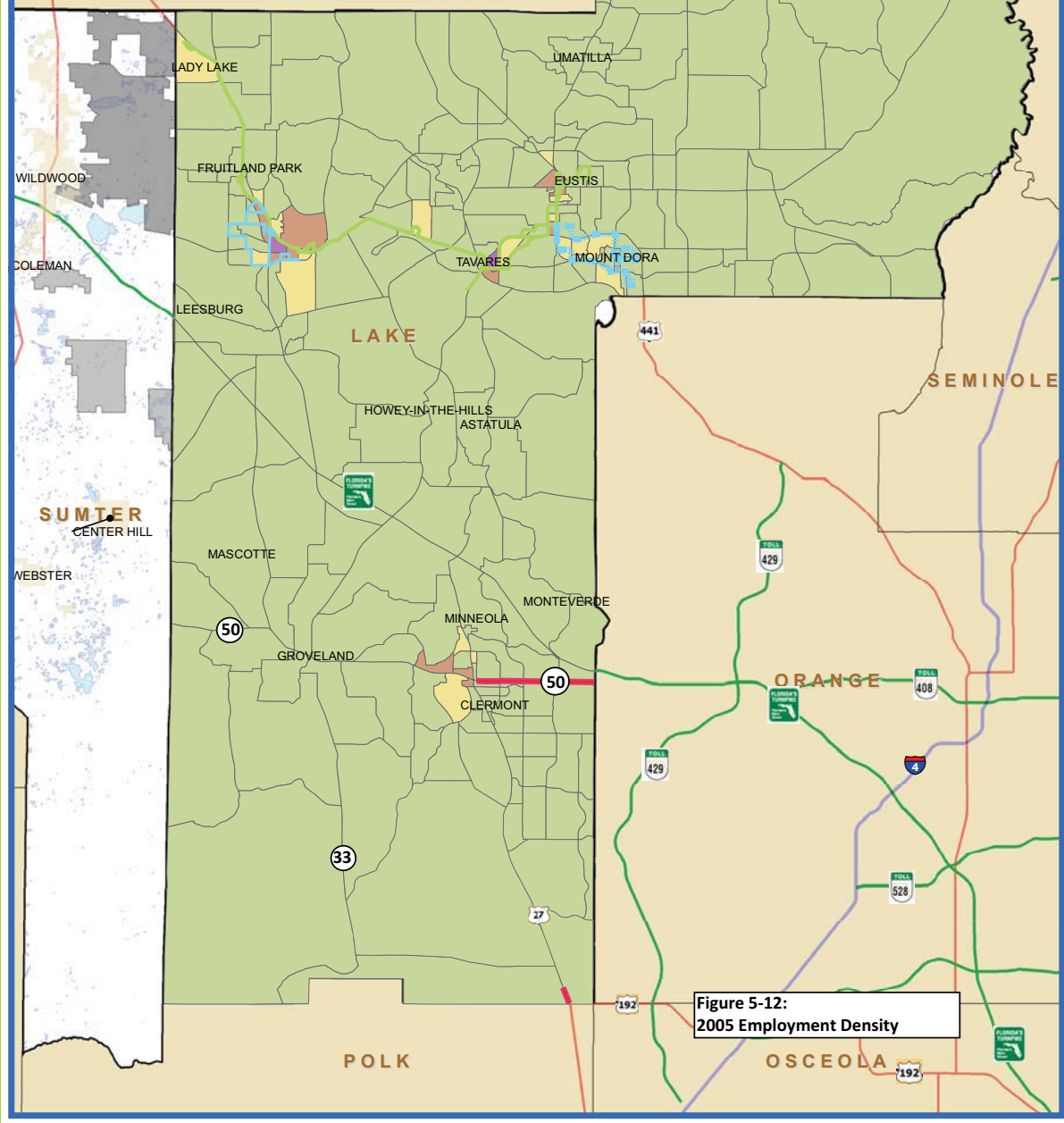
**Mount Dora Circulator** ▬▬▬▬▬▬

**Leesburg Circulator** ▬▬▬▬▬▬

**Cross County Connector** ▬▬▬▬▬▬

**LYNX Rt. 204-Clermont Express** ▬▬▬▬▬▬

**LYNX Rt. 55-US 192** ▬▬▬▬▬▬



**Figure 5-12:  
2005 Employment Density**

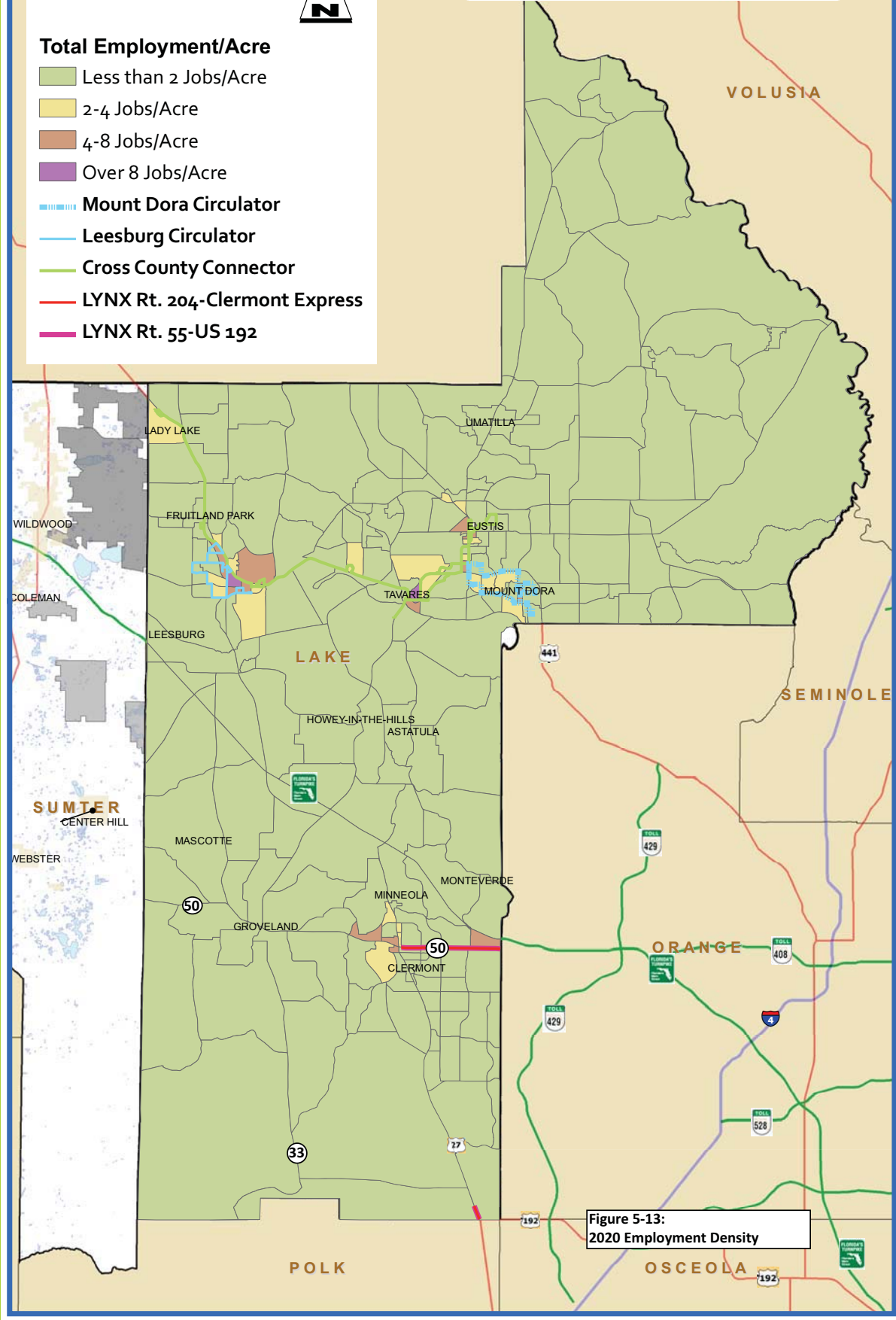
# EMPLOYMENT DENSITY 2020

## Legend



### Total Employment/Acre

- Less than 2 Jobs/Acre
- 2-4 Jobs/Acre
- 4-8 Jobs/Acre
- Over 8 Jobs/Acre
- Mount Dora Circulator
- Leesburg Circulator
- Cross County Connector
- LYNX Rt. 204-Clermont Express
- LYNX Rt. 55-US 192



**Figure 5-13:  
2020 Employment Density**

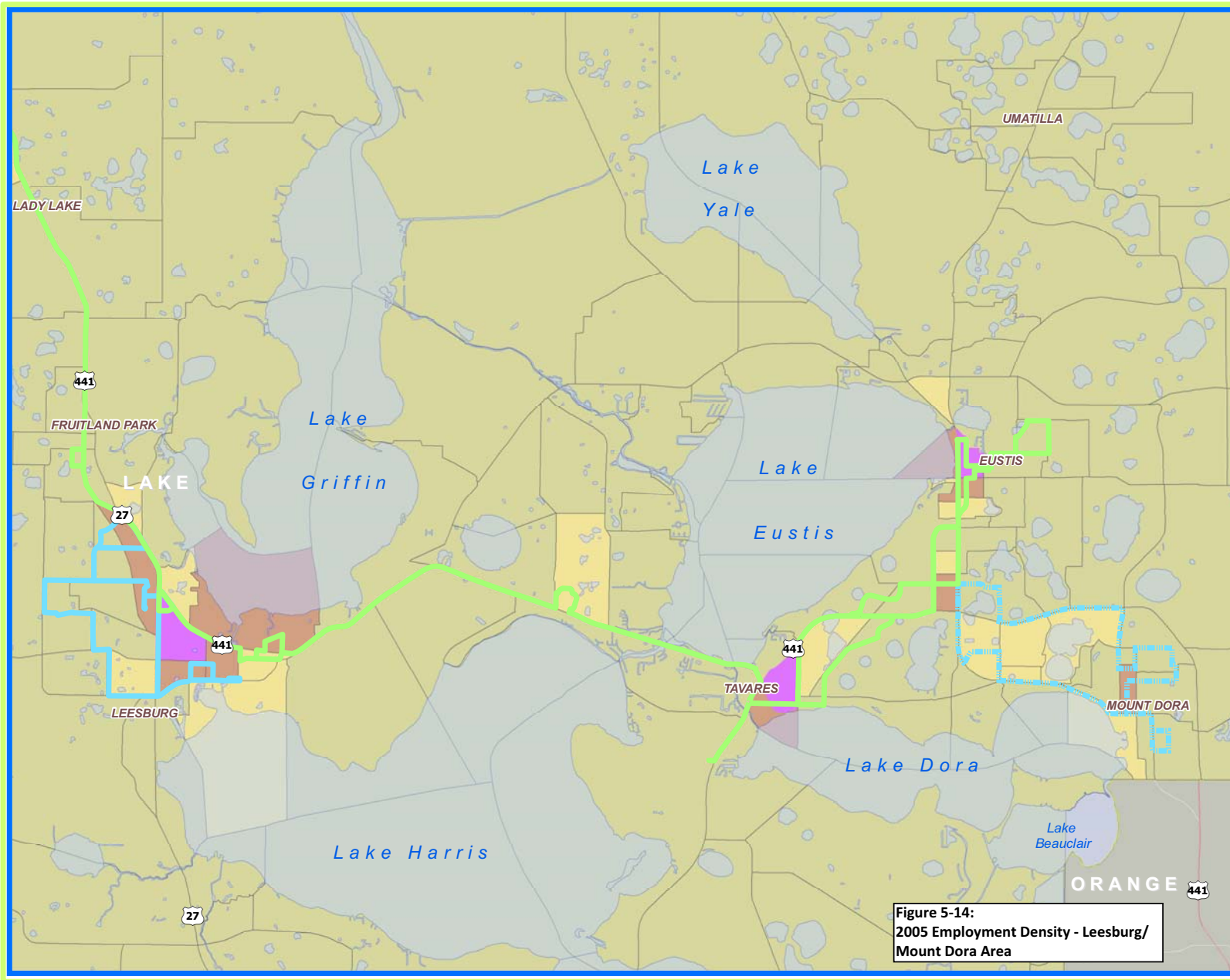
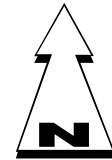


Figure 5-14:  
2005 Employment Density - Leesburg/  
Mount Dora Area



## LEESBURG/MOUNT DORA 2005 EMPLOYMENT DENSITY

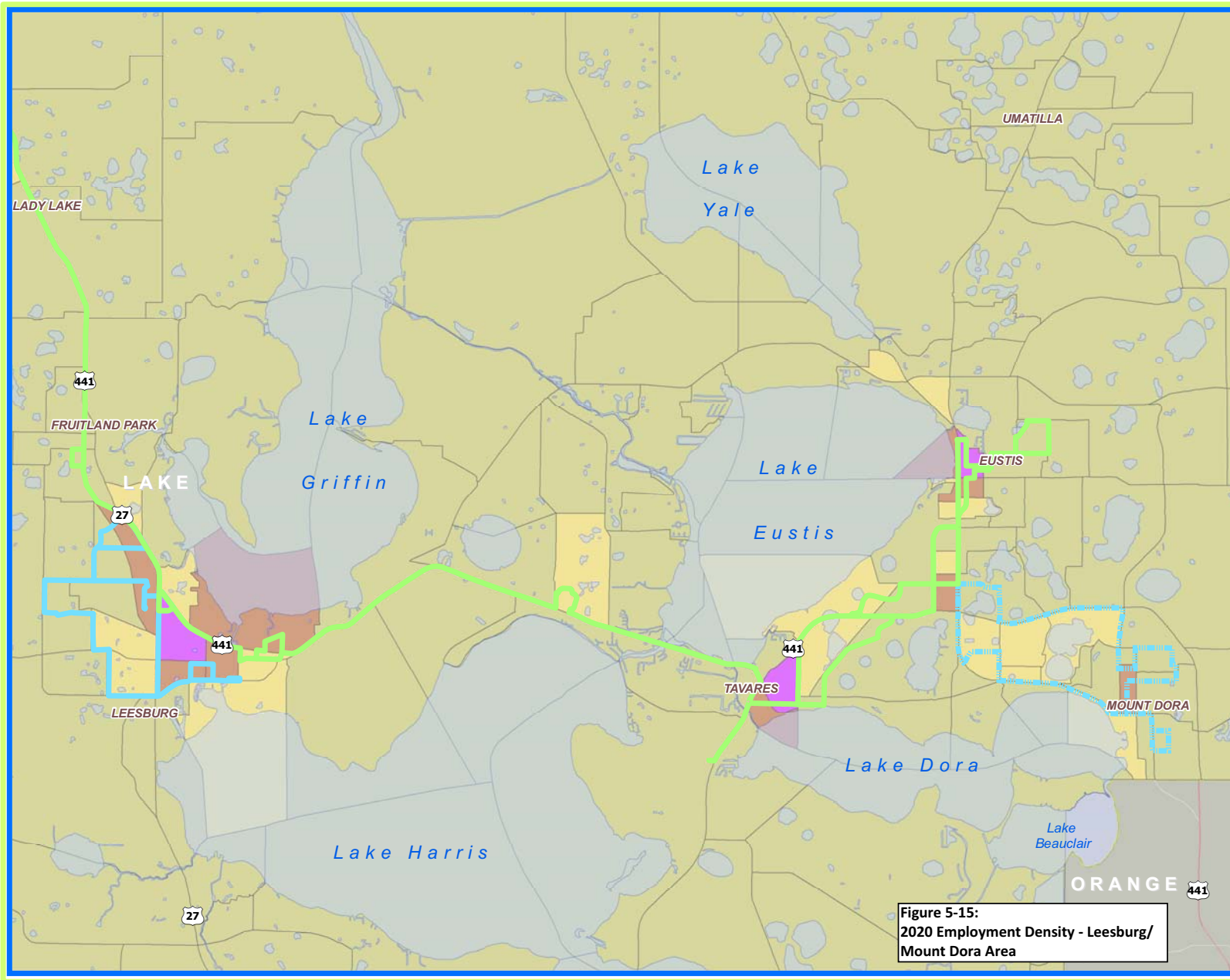


### Legend

#### Employment Density (2005)

- Less than 2 Jobs/Acre
- 2-4 Jobs/Acre
- 4-8 Jobs/Acre
- Over 8 Jobs/Acre
- Cross County Connector
- Leesburg Circulator
- Mount Dora Circulator

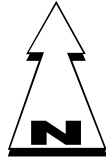




**Figure 5-15:**  
**2020 Employment Density - Leesburg/  
 Mount Dora Area**



**LEESBURG/MOUNT DORA  
 2020 EMPLOYMENT DENSITY**



**Legend**

**Employment Density (2020)**

- Less than 2 Jobs/Acre
- 2-4 Jobs/Acre
- 4-8 Jobs/Acre
- Over 8 Jobs/Acre

Cross County Connector

Leesburg Circulator

Mount Dora Circulator





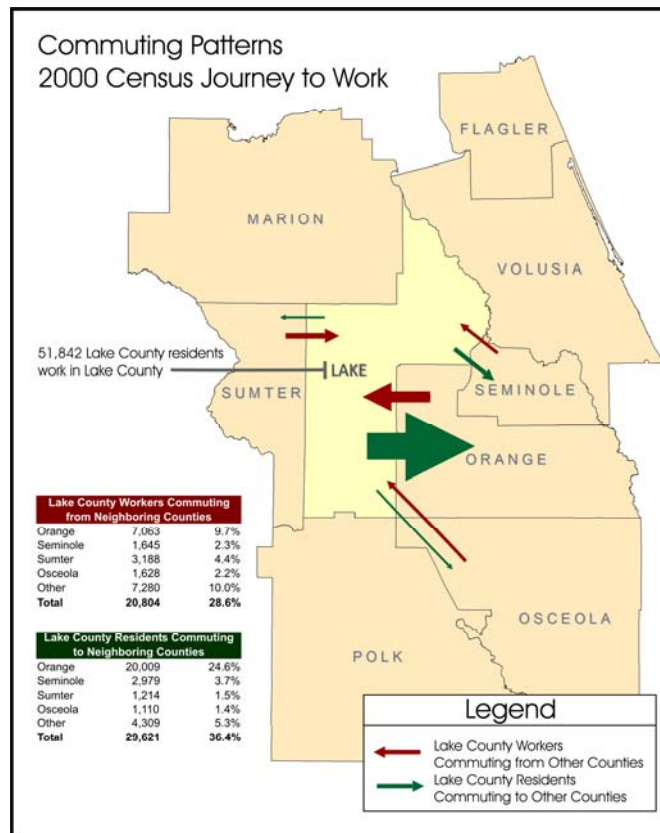
## 5.5 Major Travel Generators

Descriptions of major travel generators in Lake County are listed below to help determine destinations that could support transit now or in the future. Major travel generators include commuting patterns as identified in journey-to-work data, major employers, major activity centers, such as shopping centers, hospitals, schools and central business districts, and DRIs.

### 5.5.1 Journey to Work

According to the 2006 American Community Survey, 80 percent of Lake County commuters drove to work alone in 2006 and 13 percent carpooled. The average trip time for commuters to get to work was 27.4 minutes. According to the 2000 Census, 36.4 percent of Lake County residents travel to other counties for work and 28.6 percent of Lake County workers commute from other counties into Lake County. **Figure 5-16** shows the 2000 Census commuting patterns for Lake County.

**Figure 5-16 – Journey to Work**



## 5.5.2 Major Employers

The top employers in Lake County as of 2006 are listed in **Table 5-3**, based on information from the Metro Orlando Economic Development Commission. Additionally, major employers in neighboring counties impact commuting patterns. Among Lake County residents commuting to work, 20,009 or 24.6 percent work in Orange County. The Walt Disney Company is the largest employer in Orange County with 56,800 employees. Seminole County employs 2,979 Lake County residents to various major employers throughout the County. Sumter County employs 1,214 Lake County residents or 1.5 percent of Lake County commuters. Major employers in Sumter County near the Lake County border include Coleman Federal Prison on CR 470 and CR 501, which employs 1,004 employees; The Villages of Lake-Sumter, Inc. employs 700 people in Sumter County; T&D Concrete located at The Villages employs 460 employees; The Villages Regional Medical Center has 367 employees; and SECO Energy employs 300 people. Sumter County major employer data is from Enterprise Florida, Inc.

**Table 5-3 – Major Employers in Lake County**

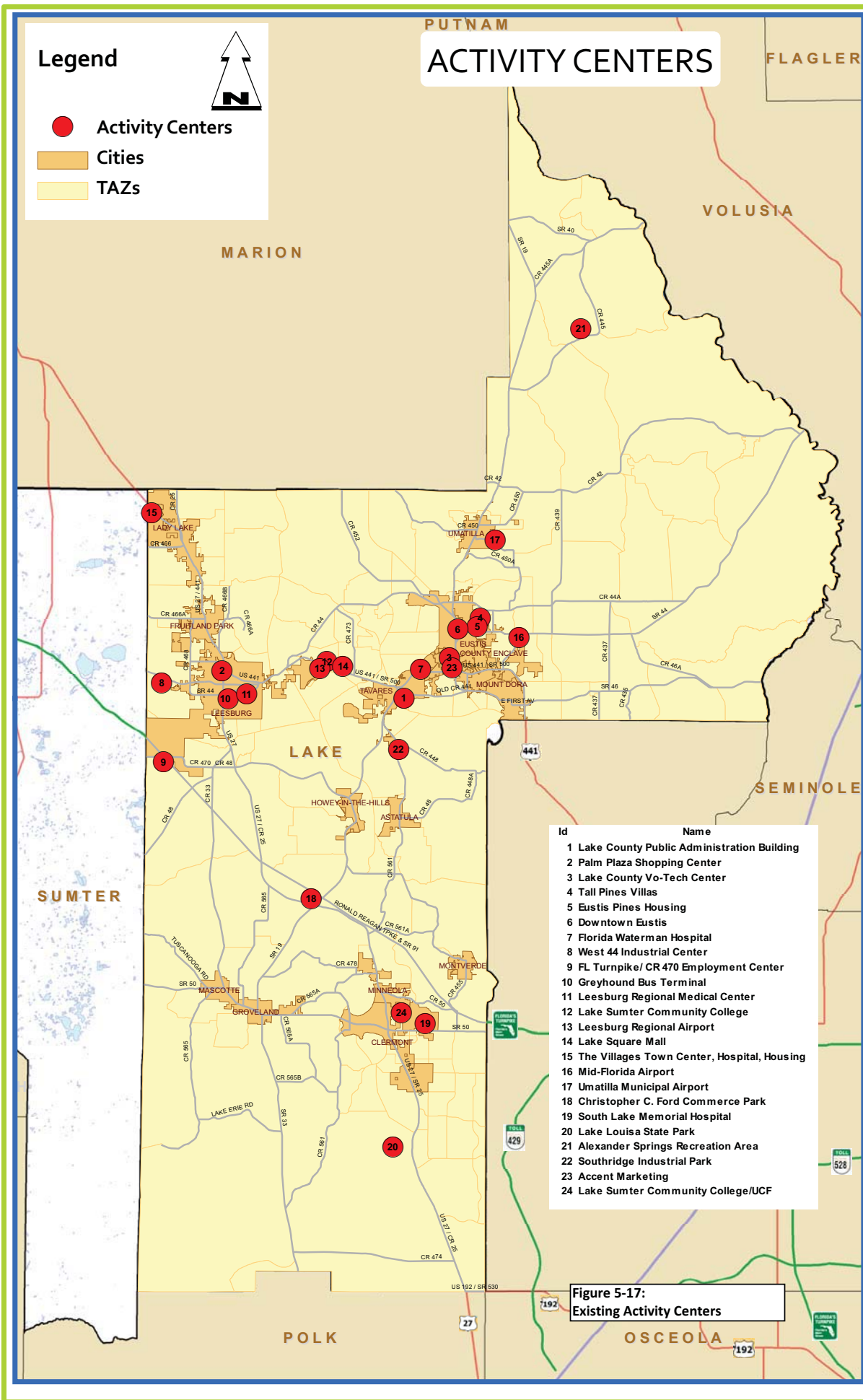
<b>Employer Name</b>	<b>Number of Employees</b>
Lake County Public Schools	4,353
Villages of Lake-Sumter, Inc.	2,220
Leesburg Regional Medical Center	1,870
Florida Hospital/Waterman, Inc.	1,400
Embarq (formerly Sprint)	811
Casmin Incorporated	800
Lake County Government	690
Lake County Sheriff's Department	585
G&T Conveyor Company, Inc.	550
Bailey Industries	509
Accent	500
Lake Port Square	400
Cherry Tree Farm	260

### 5.5.3 Activity Centers

Major travel generators in Lake County include activity centers such as hospitals, schools, shopping centers, employment centers, and central business districts. **Figure 5-17** shows major activity centers in Lake County. Most of the major activity centers are located along the US 441 corridor and are served by the existing LakeXpress routes. However, there are several activity centers along the Florida Turnpike and around Clermont that do not have access to fixed-route service, including the Florida Turnpike/CR 470 Employment Center; Christopher C. Ford Commerce Park, Lake-Sumter Community College, and South Lake Memorial Hospital. The communities of Clermont, Minneola, Groveland, and Mascotte have experienced significant growth since the 2000 Census. As a result, new activity centers are emerging south of Leesburg, along the Florida Turnpike, SR 50, and the Four Corners area in the form of DRIs.

### 5.5.4 Developments of Regional Impact (DRIs)

There are several DRIs existing or proposed in and adjacent to Lake County, as shown on **Figure 5-18**, which will have a direct impact on future travel patterns. **Appendix I** provides more detail about each DRI. Most of the DRIs are located long US 27 or within close proximity to the Florida Turnpike. In northwest Lake County, The Villages DRI spans Lake, Sumter and Marion counties and has spurred development in Lady Lake. The Villages DRI is served by the LakeXpress Cross County Connector. Several age restricted communities have been approved or built south of Leesburg along US 27 that have expressed a desire to access transit. There are also several large DRIs within close proximity to the Florida Turnpike that have been approved, such as Secret Promise, Renaissance Trails, and the Hills of Minneola. Additionally, SR 50 and US 27 south to Four Corners have existing and proposed DRIs that do not have access to fixed-route transit. Renaissance Trails, Plaza Collina, and Plantation at Leesburg have all set aside funds, infrastructure, or facilities to accommodate transit as part of their development. As the corridors along US 27, the Florida Turnpike, and SR 50 develop, it will be important to address the transit needs of the growing population.



**Legend**

- Activity Centers
- Cities
- TAZs



**ACTIVITY CENTERS**

Id	Name
1	Lake County Public Administration Building
2	Palm Plaza Shopping Center
3	Lake County Vo-Tech Center
4	Tall Pines Villas
5	Eustis Pines Housing
6	Downtown Eustis
7	Florida Waterman Hospital
8	West 44 Industrial Center
9	FL Turnpike/ CR 470 Employment Center
10	Greyhound Bus Terminal
11	Leesburg Regional Medical Center
12	Lake Sumter Community College
13	Leesburg Regional Airport
14	Lake Square Mall
15	The Villages Town Center, Hospital, Housing
16	Mid-Florida Airport
17	Umatilla Municipal Airport
18	Christopher C. Ford Commerce Park
19	South Lake Memorial Hospital
20	Lake Louisa State Park
21	Alexander Springs Recreation Area
22	Southridge Industrial Park
23	Accent Marketing
24	Lake Sumter Community College/UCF

**Figure 5-17:**  
Existing Activity Centers

### Legend



### DRI Status (January 2008)

- Approved
- Proposed
- Withdrawn
- Cities
- TAZs

# DEVELOPMENTS OF REGIONAL IMPACT

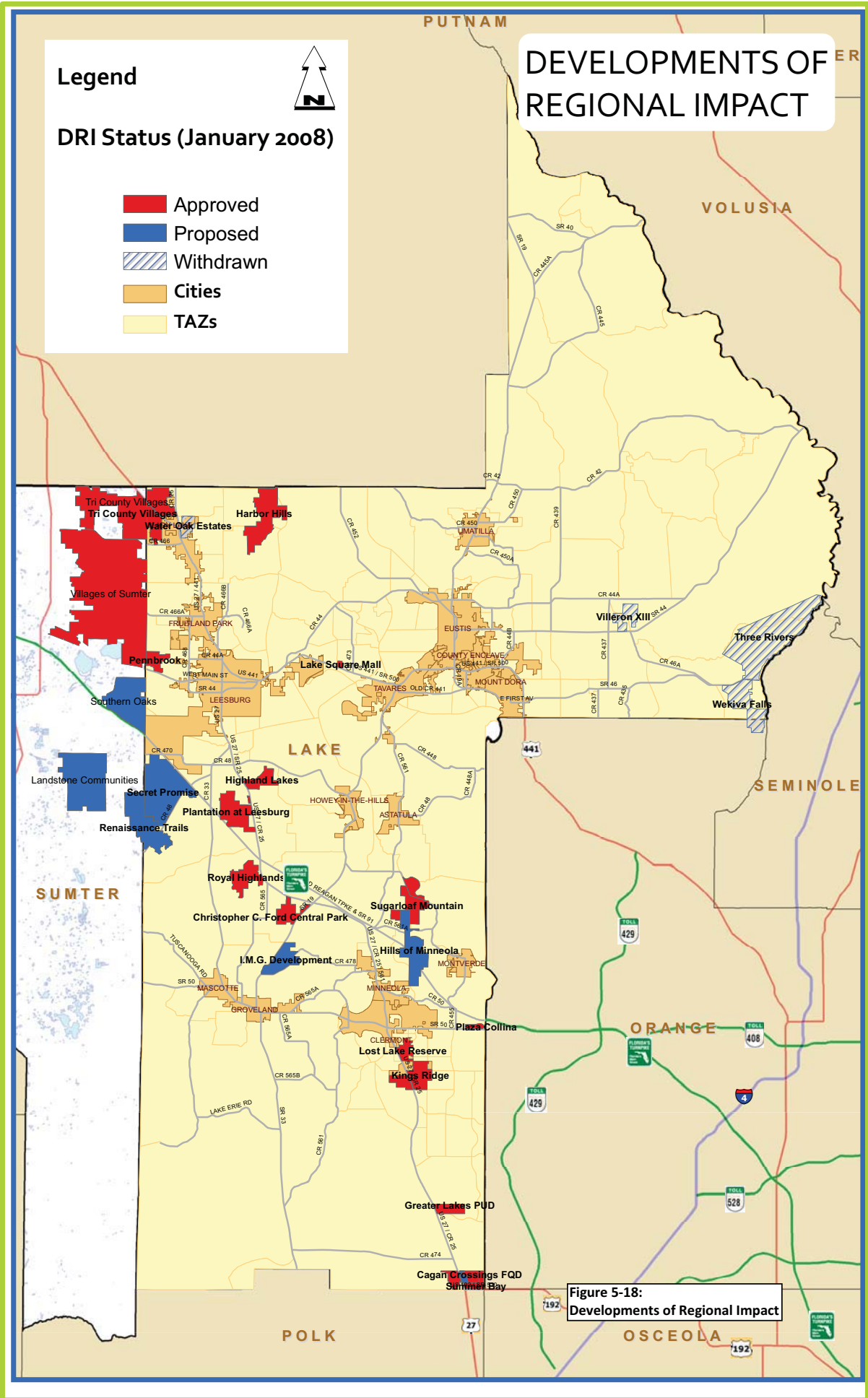


Figure 5-18:  
Developments of Regional Impact

## ***5.6 Other Characteristics Affecting Needs***

While it is important for Lake County to meet the transit needs of current residents, future decisions that impact growth will also influence the transit needs of the County. Several other factors that impact the transit needs of the County are the future population centers, roadway capacity, pedestrian access, and environmental resource conservation areas.

### **5.6.1 How Shall We Grow**

As part of a regional visioning effort, the Lake-Sumter MPO created the *2050 Population Centers Map* of what the region will look like in 2050. While 2050 is outside of the planning horizon of this TDP, the Population Centers map will guide future development decisions and should be considered. **Figure 5-19** shows the population centers as identified in the study for 2050. As shown on the map, the population of the Lake-Sumter region grew 74 percent from 2000 to 2006. Cities that experienced more than 50 percent growth include Mascotte, Minneola, Groveland, and Clermont. Additionally, The Villages and Four Corners were not population centers in 2000, yet they make up 24 percent of the Lake-Sumter 2006 population. It will be imperative the County is prepared to meet the transit needs of these new residents.

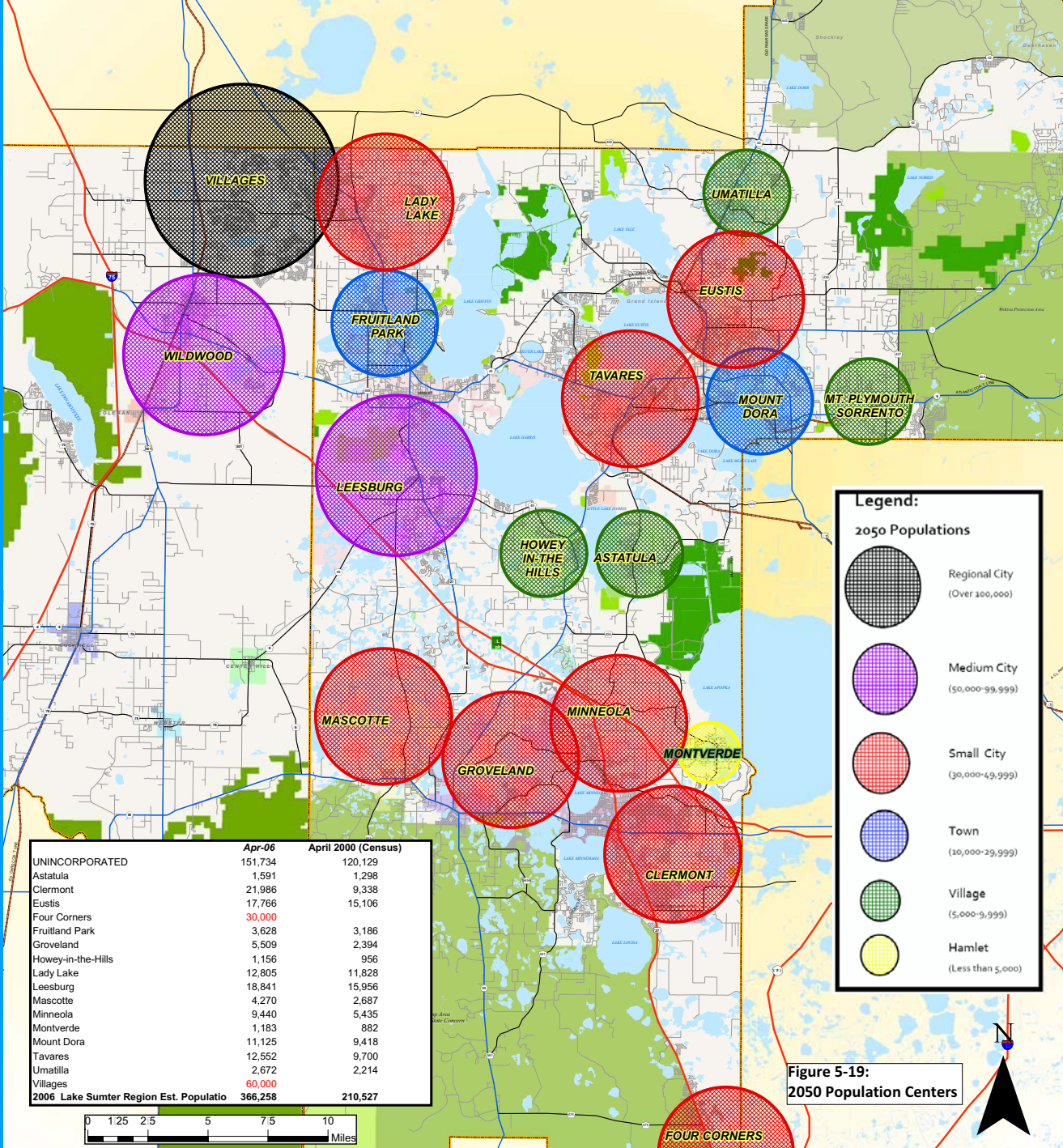
### **5.6.2 Lake-Sumter MPO Corridor Constraint Policy**

In an effort to maintain a cohesive vision throughout the region, the Lake-Sumter MPO released the Corridor Constraint Policy in February 2008 to guide future transportation and land use planning. The policy addresses several goals, one of which is to promote the migration toward additional capacity through mass transit improvements along arterial corridors. To meet the established goals, the policy limits the number of lanes on corridor roadways to two lanes, four lanes, and six lanes.



Lake-Sumter Metropolitan Planning Organization  
 1616 South 14th Street  
 Leesburg, Florida 34748  
 Phone: (352) 312-6176 • Fax: (352) 312-6883  
 www.Lake-Sumter-MPO.com

# 2050 POPULATION CENTERS



**Legend:**

**2050 Populations**

- Regional City (Over 100,000)
- Medium City (50,000-99,999)
- Small City (30,000-49,999)
- Town (10,000-29,999)
- Village (5,000-9,999)
- Hamlet (Less than 5,000)

Figure 5-19:  
2050 Population Centers



### **5.6.3 Lake County Trails Master Plan and Bicycle Suitability Map**

Accessibility has a bearing on transit choice riders as well as the safety of transit-dependent riders. The Lake County Trails Master Plan, shown on **Figure 5-20**, provides guidance on corridors that have or will have trails and sidewalks and could provide pedestrian benefits to transit riders. This map shows bicycle routes that can connect to transit. Much of the corridor currently served by transit along 441 is designated for multi-use trails.

### **5.6.4 Land Use and Environmental Concerns**

Lake County has several rural areas and environmentally sensitive lands, as shown on **Figure 5-21**. As part of the 2025 Future Land Use Element, the County has identified the rural regions of the County to the northeast and southwest as environmental protection areas. While these areas may have transit-dependent populations, fixed-route service may not be appropriate. Alternative types of transit, such as dial-a-ride, flex route services, or vanpools are successful components of less dense suburban or rural areas. The land use map reveals that the corridors along US 27, portions of SR 50, and the Florida Turnpike will have medium to high density development. In addition to protecting environmentally sensitive lands, this development pattern will help support transit ridership along these major corridors.



# LAKE COUNTY 2008 TRAILS MASTER PLAN

## Legend



### 2008 Trails By Type

- Greenway
- Multi-Use
- Nature
- Walkway
- TBD
- Cities
- TAZs

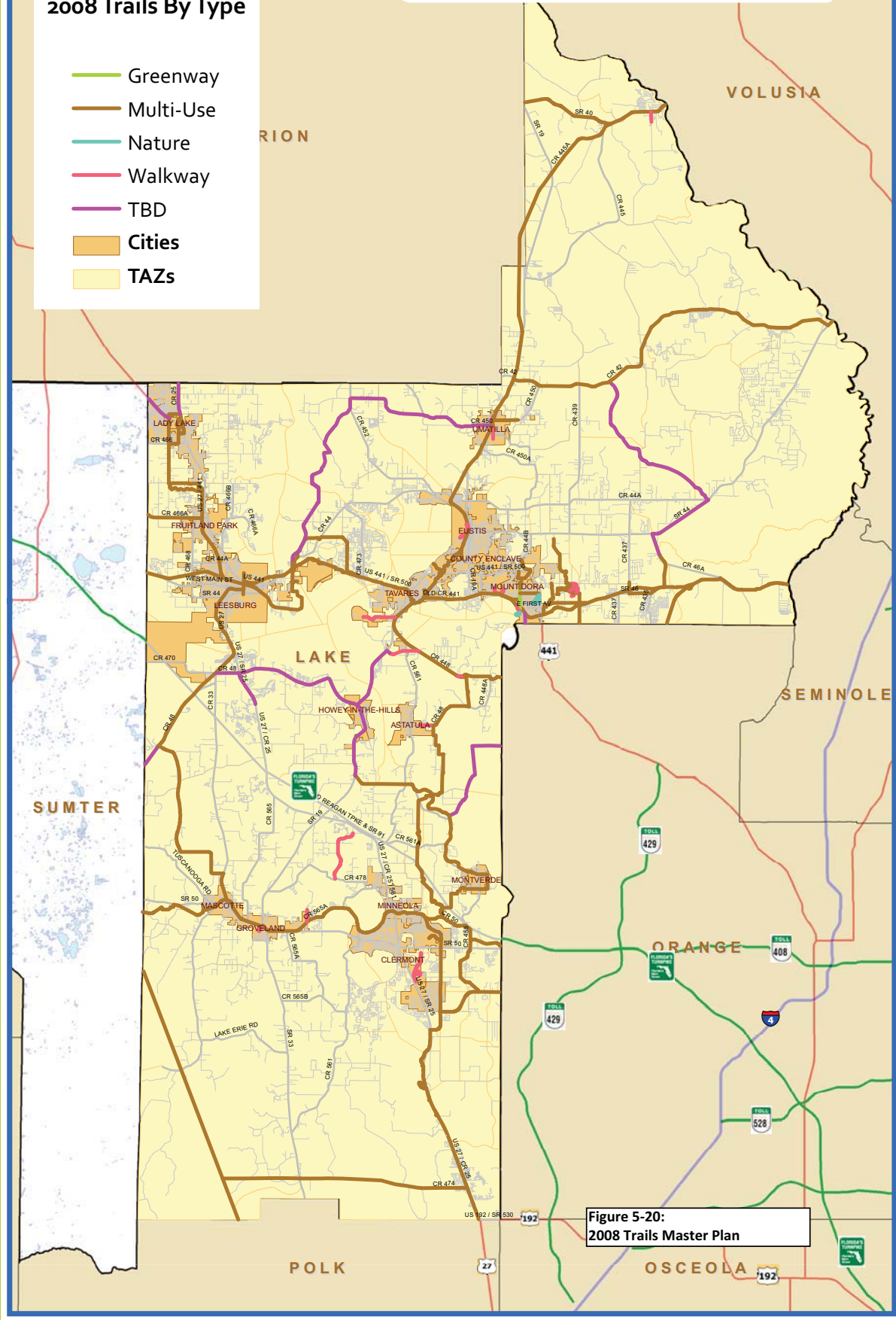
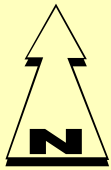


Figure 5-20:  
2008 Trails Master Plan

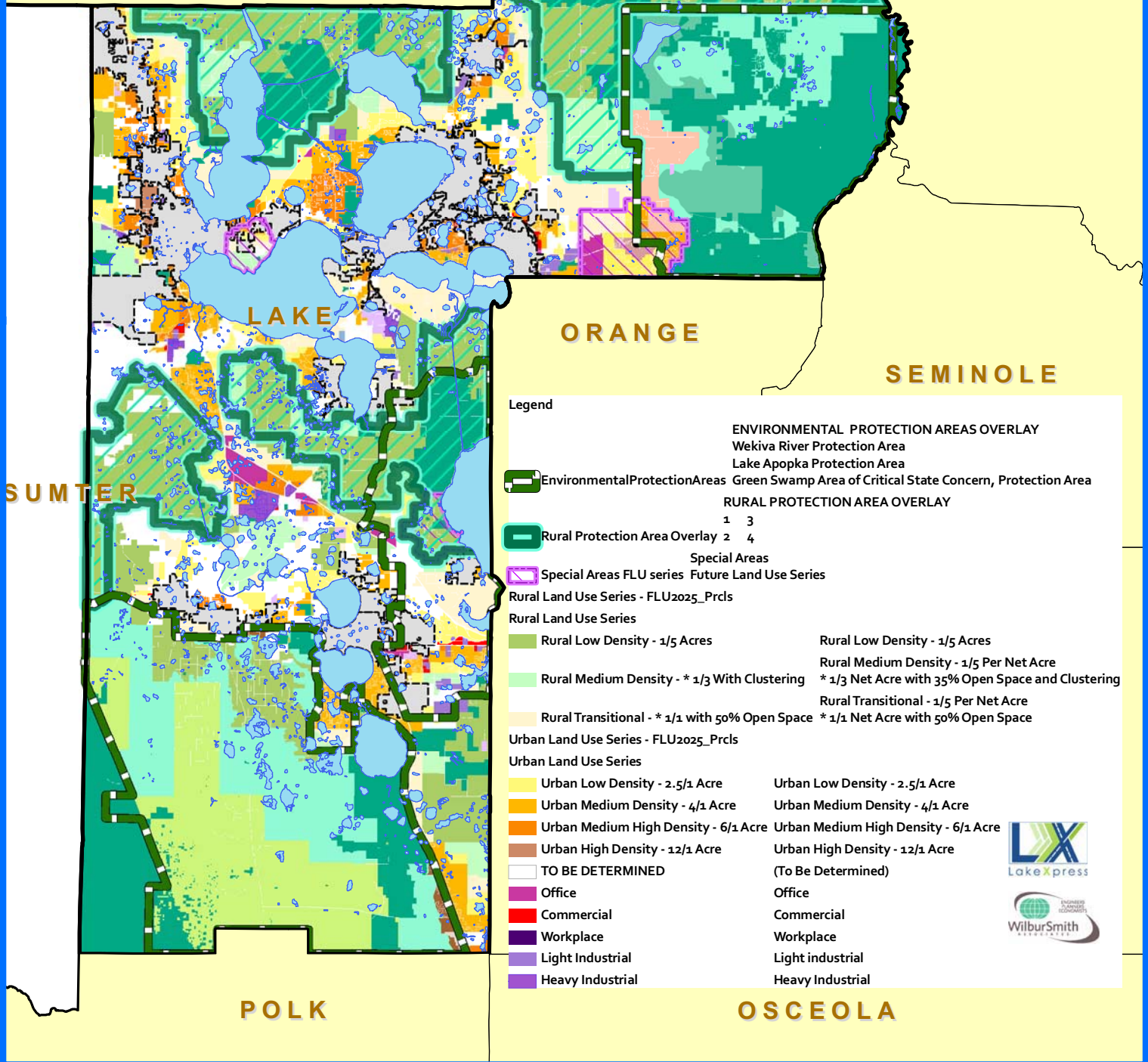
# Lake County 2025 Future Land Use



MARION

VOLUSIA

Figure 5-21:  
2025 Future Land Use



ORANGE

SEMINOLE

SUMTER

POLK

OSCEOLA

**Legend**

**ENVIRONMENTAL PROTECTION AREAS OVERLAY**  
 Wekiva River Protection Area  
 Lake Apopka Protection Area  
 Green Swamp Area of Critical State Concern, Protection Area

**RURAL PROTECTION AREA OVERLAY**  
 1 3  
 2 4

**Special Areas**  
 Special Areas FLU series Future Land Use Series

**Rural Land Use Series - FLU2025\_Prcls**  
 Rural Land Use Series

Rural Low Density - 1/5 Acres  
 Rural Medium Density - \* 1/3 With Clustering  
 Rural Transitional - \* 1/1 with 50% Open Space

Rural Low Density - 1/5 Acres  
 Rural Medium Density - 1/5 Per Net Acre  
 \* 1/3 Net Acre with 35% Open Space and Clustering  
 Rural Transitional - 1/5 Per Net Acre  
 \* 1/1 Net Acre with 50% Open Space

**Urban Land Use Series - FLU2025\_Prcls**  
 Urban Land Use Series

Urban Low Density - 2.5/1 Acre  
 Urban Medium Density - 4/1 Acre  
 Urban Medium High Density - 6/1 Acre  
 Urban High Density - 12/1 Acre  
 TO BE DETERMINED  
 Office  
 Commercial  
 Workplace  
 Light Industrial  
 Heavy Industrial

Urban Low Density - 2.5/1 Acre  
 Urban Medium Density - 4/1 Acre  
 Urban Medium High Density - 6/1 Acre  
 Urban High Density - 12/1 Acre  
 (To Be Determined)  
 Office  
 Commercial  
 Workplace  
 Light industrial  
 Heavy Industrial

## 5.7 Future Needs

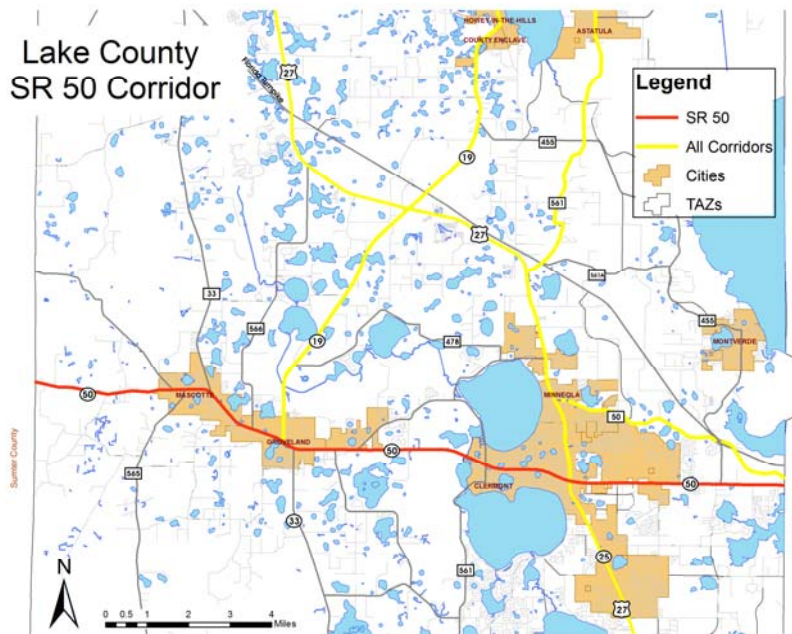
The future needs for Lake County based on corridors, community circulators, and regional travel are identified below. Corridor and community needs were identified based on linkages to major population centers, activity centers, employment, existing neighborhoods, and future development, as well as the concentration of transit-dependent population. There have been several studies conducted in the past that have identified potential transit service for corridors and communities in Lake County. A table of previous recommendations is provided in **Appendix J**.

### 5.7.1 Corridor Service

The following identifies major and minor road corridors that currently have existing transit or have the potential to support future transit. Some of the corridors are constrained roadways up to six lanes, while others serve as traffic relievers with only two lanes.

#### 5.7.1.1 SR 50 – EW – Mascotte, Groveland, Clermont

State Road 50 is a major east-west roadway in Lake County south of the Florida Turnpike that travels through the communities of Mascotte, Groveland, and Clermont and continues into Orange County to Orlando. The maximum number of lanes for SR 50 is



six, and the road experiences traffic congestion from Clermont to Orange County. Although the SR 50 corridor is not conducive to bicycles, it does intersect several bicycle routes and could provide the opportunity for connections to these routes. Currently, LYNX operates the Clermont Express (Route 204) into Orlando from the park and ride at US 27/SR 25. This provides regional service for the 24.6 percent of Lake County residents who travel to Orange County for employment.

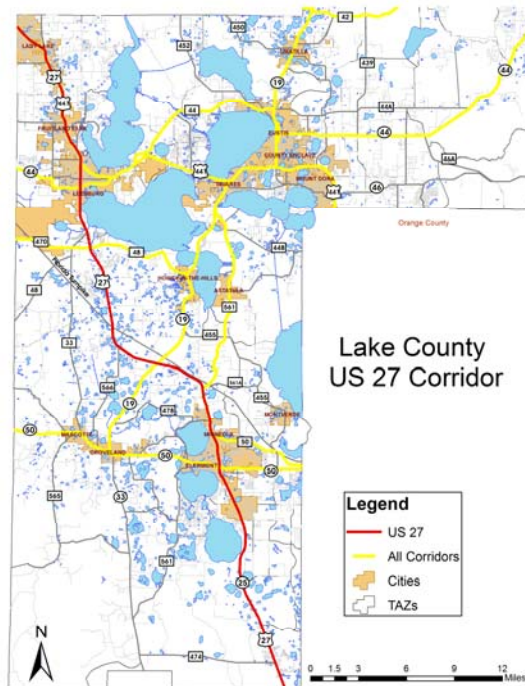
Major activity centers on SR 50 include the central business districts of Mascotte, Groveland and Clermont, and South Lake Memorial Hospital. Plaza Collina is a 142 acre mixed use development identified as an approved DRI located on SR 50 at the Orange County line. As part of the DRI, the development has \$100,000 set aside for a transfer facility, bus stop(s), and operating funds.

There are several transit supportive TAZs along SR 50. TAZs with two to three households per acre are located in Clermont at US 28/SR 25 and SR 50. Employment densities of four to eight employees per acre are located along SR 50 in Clermont. In 2020, Plaza Collina and its surrounding TAZ is expected to have four to eight employees per acre.

The 2000 Census reveals a transit-dependent population along this corridor with 10 to 30 percent of the population under the age of 16 and less than 50 percent of the population over the age of 59. Twenty to 30 percent of the households along SR 50 from Clermont west to the Sumter County line earn an income of \$10,000 or less. At the northwest corner of US 27 and SR 50, 31 to 45 percent of the households earn \$10,000 or less and 31 to 44 percent of the households in this census block have no access to a vehicle. It is important to note that this data is from the 2000 census, and the SR 50 corridor has grown significantly since then. In April 2006, as revealed in the “How Shall We Grow” Population Centers Map, the population of Clermont grew 135 percent from 9,338 residents in April 2000 to 21,986 in April 2006. Groveland’s population increased 130 percent from 2,394 to 5,509 and Mascotte grew 59 percent from 2,687 to 4,270. Combined, these three municipalities had 120 percent more residents in 2006 than the 2000 Census.

5.7.1.2 US 27 - The Villages, Lady Lake, Fruitland Park, Leesburg, Minneola

US 27 is a major north-south route in Lake County that travels through the northwest corner of the County south to the southwest corner of the County. Major population centers along US 27 include The Villages, Lady Lake, Fruitland Park, Leesburg, Minneola, Clermont, and Four Corners. US 27 has an interchange at the FL Turnpike in Lake County and I-4 in Orange County. LYNX operates two express routes with park and ride locations departing from US 27. The Clermont Express (Route 204) travels to Orlando via SR 50 from a park and ride location on US 27, just south of the SR50/US 27 interchange. A second LYNX route operates from the Four Corners area to Disney (Route 55) via U.S. 192 with a park and ride location at the Wal-Mart shopping center on US 27. The LakeXpress Cross County Connector operates from The Villages to Leesburg along US 27. The Leesburg Circulator also serves portions of US 27.



Major activity centers along US 27 include The Villages community, town center and hospital, big box retail and shopping centers in Lady Lake, Fruitland Park, and Leesburg, the Greyhound Bus Terminal, Christopher C. Ford Commerce Park, Lake Louisa State Park, and Four Corners.

There are several DRIs existing or proposed along US 27. The largest is The Villages with 6,538 acres located in Lake, Sumter, and Marion Counties. Currently, The Villages are served by a local circulator operated by Sumter County, and the LakeXpress Cross County Connector which travels to Leesburg, Lake Square Mall, Waterman Hospital, and Eustis. Highland Lakes and Plantation at Leesburg are age restricted communities that have expressed a desire for transit. The Plantation at Leesburg DRI set aside \$10,000 to conduct a transit study. Secret Promise and Renaissance Trails are two proposed mixed

used DRIs that are not directly on US 27. They have set aside funds for transit and want a connection to The Villages (US 27 would be the most likely route). Other DRIs along US 27 that may warrant future transit include Royal Highlands, Lost Lake Reserve, Kings Ridge, Greater Lakes, and Four Corners.

Employment densities for the year 2005 and 2020 do not reveal a heavy demand for choice riders along US 27 in areas not currently served by transit; however, US 27 provides a north-south connection to several key corridors, such as the Florida Turnpike, SR 50, and US 192. Transit along US 27 would support regional travel by providing direct access to employment in Orange County.

Household densities along US 27 that support transit can be found in areas not currently served. The community of Hawthorne, located north of CR 48 and east of US 27, has 2.01 to 3.00 households per acre. Other TAZs with household densities of 2.01 to 3.00 households per acre are located along US 27 in Minneola and at SR 50. In 2020, additional TAZs with 2.01 to 3.00 households per acre will include Secret Promise and Renaissance Trail, additional TAZs in Minneola, the vicinity of Kings Ridge, and the area east of US 27 in Four Corners.

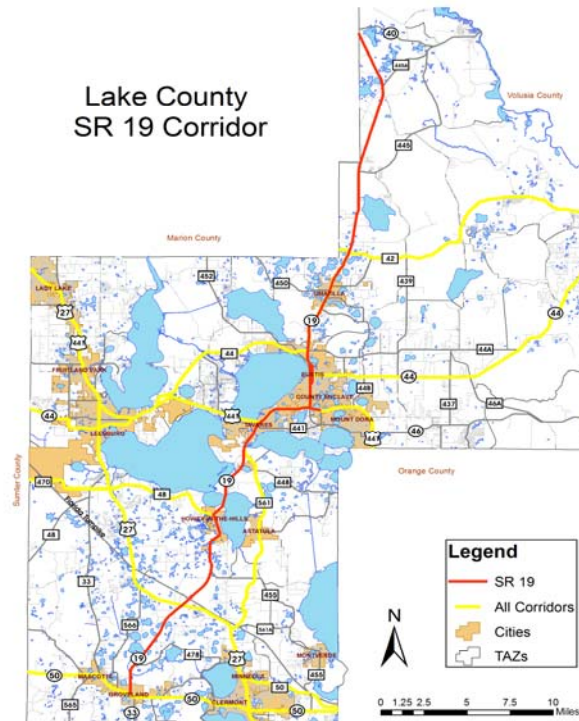
Transit-dependent residents without access to fixed-route service can be found in census blocks along US 27. Children under the age of 16 make up 21 to 30 percent of the population south of the Florida Turnpike and west of US 27. In the census block around the Hawthorne Community south of Leesburg, 76 to 99 percent of the residents are over the age of 59. North of the Florida Turnpike and south of Leesburg, 50 to 75 percent of the population is over the age of 59 and are not served by fixed-route service.

Among the households in the census block located northwest of US 27 and SR 50 in Clermont, 21 to 30 percent have an income of \$10,000 or less, and 31 to 44 percent have no access to a vehicle. As previously mentioned, this data is from the year 2000, and the area has experienced significant growth; therefore, a more accurate picture of transit-dependent population will be revealed in the 2010 Census.

5.7.1.3 SR 19 – Umatilla, Eustis, Tavares, Howey-in-the-Hills, US 27, Groveland

State Road 19 is a north-south corridor that runs from the northeastern corner of Lake County to SR 50 in Groveland. Portions of SR 19 are constrained to two lanes, while more populated areas are constrained to four and six lanes. Major population centers along SR 19 include Umatilla, Eustis, Mount Dora, Tavares, Howey-in-the-Hills, and Groveland. US 19 has access to the Florida Turnpike at US 27. Currently, the LakeXpress Cross County Connector serves portions of SR 19 and the proposed Mount Dora Circulator would also provide a connection to the SR 19 corridor.

Activity centers along SR 19 include downtown Umatilla and the Umatilla Municipal Airport, downtown Eustis, Lake County Rotech Center, Florida Hospital-Waterman, the Lake County Public Administration Building, and the Christopher C. Ford Commerce Park. Cherry Tree Farm is located off of US 19 north of Groveland. In addition to being a top employer for Lake County, it also has a proposed DRI for a 1,088 mixed use development. Additionally, SR 19 travels through Tavares, which is identified in the Northwest Commuter Rail Study as a potential commuter rail stop.

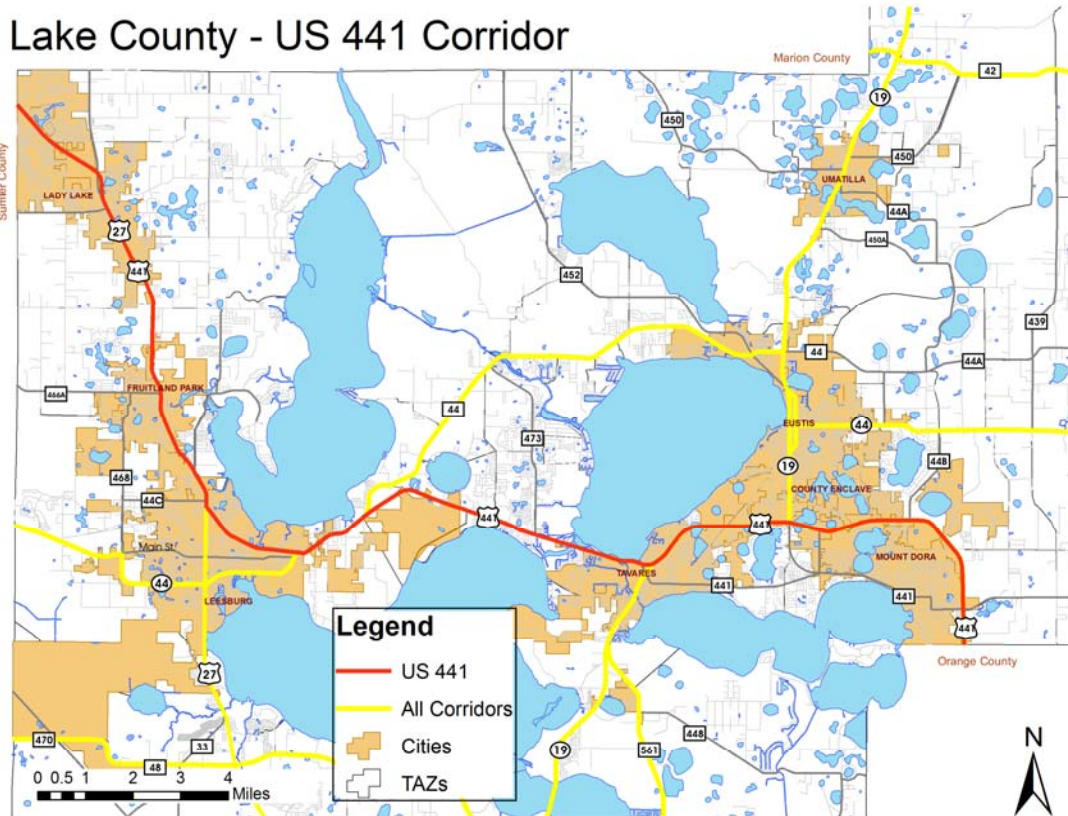


Employment densities along SR 19 that support transit are located along the existing LakeXpress Cross County Connector; however, SR 19 crosses the Florida Turnpike and SR 50, which provide access to employment in Orange County.

The current LakeXpress routes serve the TAZs along SR 19 with household densities that support transit with the exception of the area around Fort Mason. This TAZ north of CR 44 and west of SR 19 has a household density of 3.01 to 6.34 households per acre, and the TAZ south of CR 44 on SR 19 has a household density of 2.01 to 3.00 households per acre.

Transit-dependent residents are located in census blocks along SR 19. Areas with 21 to 30 percent of the population under the age of 16 are located in the census blocks north of the Florida Turnpike and east of US 19 as well as census blocks north of Eustis to Altoona. Approximately 51 to 75 percent of the population in the census block north of the Florida Turnpike, west of US 19 and south of Howey-in-the-Hills are over the age of 59. Households with an income of \$10,000 or less comprise 11 to 20 percent of the census tract south of Tavares, along with census tracts north in Umatilla. In the census tract north of Eustis at CR 44 and west of SR 19, 11 to 20 percent of the households have no access to a vehicle. This data is from 2000 and the population centers along this corridor have experienced significant growth; therefore, the 2010 Census will provide a more accurate description of transit-dependent residents along SR 19.

5.7.1.4 US 441 – Lady Lake, Fruitland Park, Leesburg, Tavares, Mt. Dora, Zellwood



The US 441 corridor connects the communities of The Villages, Lady Lake, Fruitland Park, North Leesburg, Tavares and Mount Dora. The current LakeXpress Cross County Connector travels along 441 from The Villages to Mount Dora. The Mount Dora



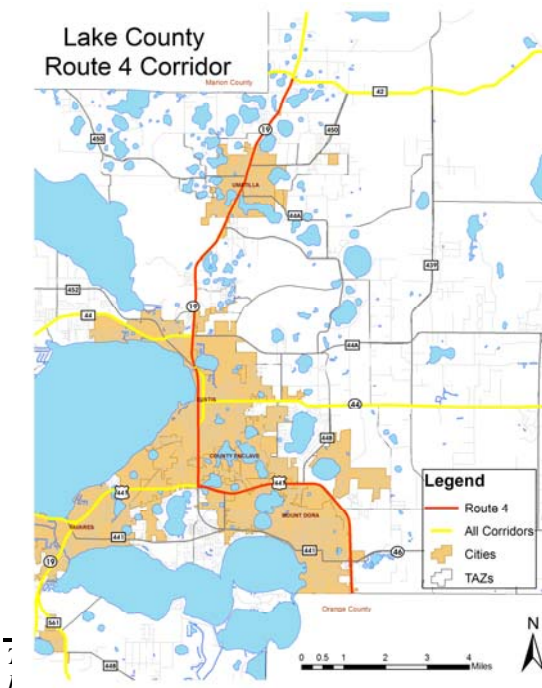
Circulator and proposed Route 4 to Zellwood would complete coverage of US 441 and create a regional connection to Orange County. Because US 441 is a major corridor with a maximum constraint of six lanes, the need for enhanced bus service may be warranted.

A large number of activity centers are located along US 441 including Leesburg Regional Medical Center, Lake-Sumter Community College, Lake Square Mall, Leesburg Regional Airport, Florida Hospital-Waterman, Accent Marketing, and the Lake County Rotech Center. The Villages DRI is also located on US 441.

Transit supportive employment densities are served by current LakeXpress Cross County Connector and the Mount Dora Circulator; however, there is no regional service to Orange County employment. In May 2008, the Lake County Public Transportation Staff submitted an FDOT grant application for a fixed-route service between Altoona and Zellwood, with stops in Eustis and Mount Dora. This proposed Route 4 to Zellwood would provide a regional connection from US 441 to LYNX in Orange County.

Like employment densities, household densities that support transit along US 441 would be served by the existing and proposed LakeXpress Routes. This is also true for transit-dependent populations of residents under the age of 16, over the age of 59, an income of \$10,000 or less, and no access to a vehicle. Again this data is from 2000, and 2010 Census data may reveal a different transit-dependent population along this corridor.

#### 5.7.1.5 Zellwood to Altoona



The Lake County MPO identified a need for service between Altoona and Zellwood in Orange County via SR 19 and US 441. This service would link the major population centers of Umatilla, Eustis and Mount Dora to Zellwood with connections to LYNX in Orange County. A large transit-dependent population lives along this corridor, with the potential to migrate over to fixed-route and/or vanpool/carpool support.

Major Activity centers include Downtown Eustis, Lake County Rotech Center, Lake

County Health Department in Eustis, and connections to the LakeXpress Cross County Connector and future Mount Dora Circulator, as well as LYNX bus service to Orlando and the International Airport.

TAZs with transit supportive household densities along the corridor that are currently not served by transit include the northwest and southwest corners of CR 44 and SR 19. In this same area, 10 to 20 percent of the households have no access to a vehicle or fixed-route bus service. Residents over the age of 59 comprise 51 to 75 percent of the population along the corridor north of Eustis and around Umatilla that is not currently served by transit. Additionally, 20 to 30 percent of the residents along this unserved corridor are under the age of 16.

While the segment of the corridor north of Eustis to Altoona does not have high employment densities, service along this corridor would support the 24.6 percent of Lake County residents who travel to Orange County to work, thus promoting regional connections to LakeXpress routes.

#### 5.7.1.6 CR 561 - Tavares, Astatula, Minneola

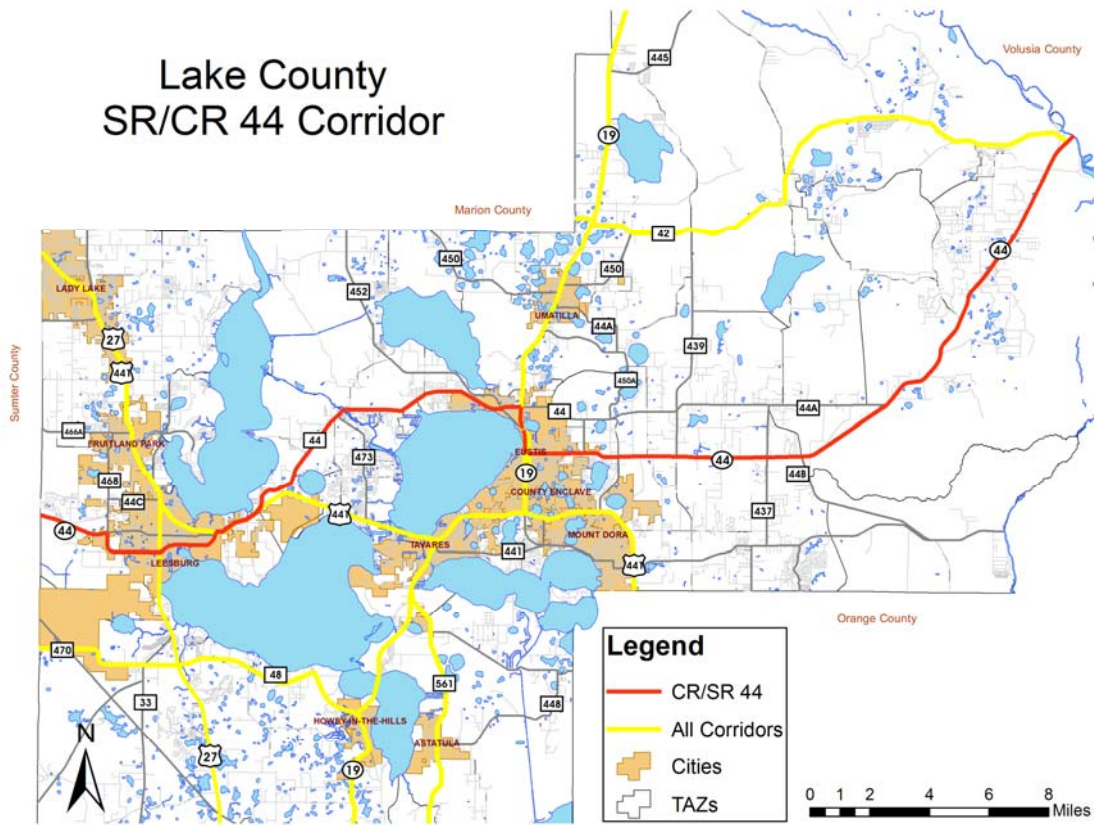


CR 561 is an alternative route to SR 19 from Tavares, and travels through Astatula to the Florida Turnpike where it joins US 27 to Minneola, Clermont, and Four Corners. Southridge Industrial Park is a major activity center along this route. The Hills of Minneola DRI is a mixed use development with access to CR 561 via CR 561A, which is a new Florida Turnpike interchange.

While employment densities do not support transit along this corridor, access to the Florida Turnpike and SR 50 via SR 27 will provide regional connections to

employment in Orange County. Household densities are not currently transit supportive; however, the Hills of Minneola DRI may impact the future household density in the corridor. Transit-dependent population is not evident along this corridor; although, 21 to 30 percent of the population is 15 years old or less.

5.7.1.7 SR/CR 44 – Wildwood, Leesburg, Eustis, DeLand



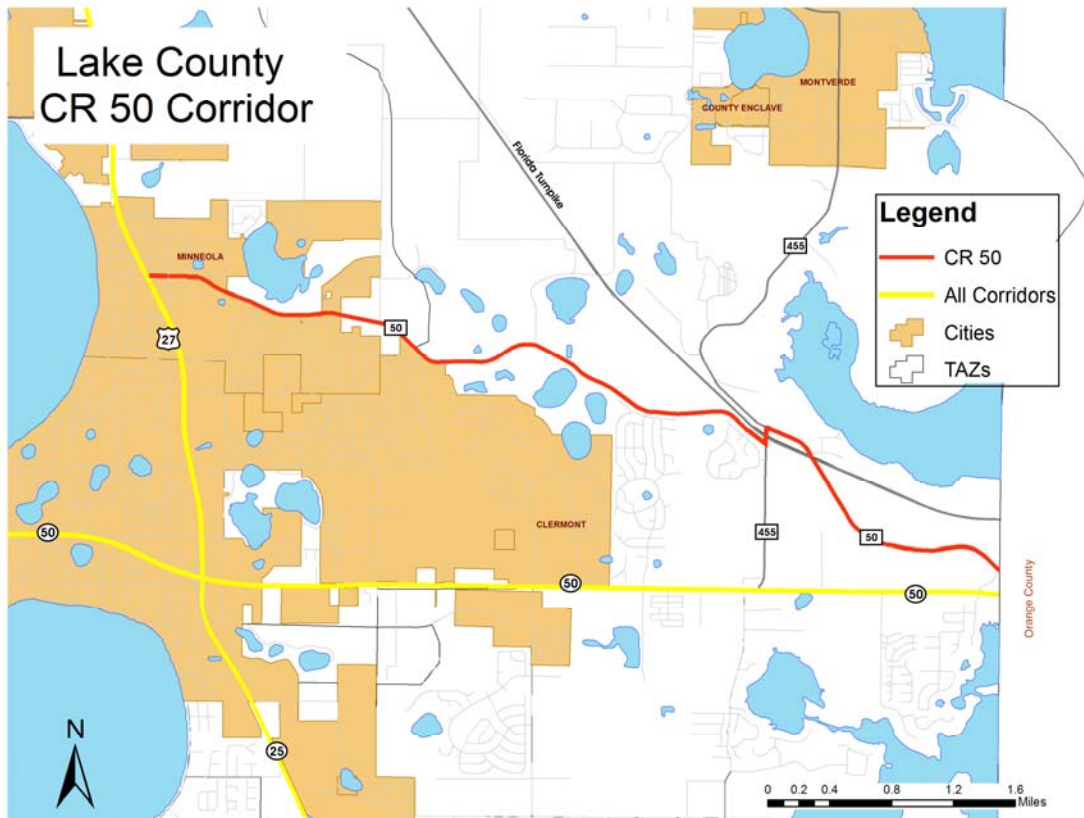
SR/CR 44 is an east-west corridor that serves as a bypass route north of US 441 to Eustis. Major population centers along the corridor include Wildwood in Sumter County, Leesburg, Fort Mason and Eustis in Lake County, as well as DeLand in Volusia County. Currently, service is provided from Paisley to DeLand once a week via CR 42; however, no service is provided along SR 44. Major activity centers along this corridor include the West 44 Industrial Center, as well as destinations in DeLand in Volusia County.

The Pennbrook DRI is an approved 566 acre mixed use development on SR 44 south of The Villages at the Sumter County line. Additionally, Southern Oaks DRI is located in Sumter County south of SR 44. Employment densities along the SR/CR 44 corridor are

strongest in Leesburg, where the LakeXpress Cross County Connector provides service; however, north of Eustis at Fort Mason, two TAZs have 2.01 to 4.00 employees per acre.

The CR 44 has several TAZs with high household densities, including the TAZ north of CR 44 at Fort Mason with 3.01 to 6.34 households per acre, and the TAZ south of CR 44 at Fort Mason with 2.01 to 3.00 households per acre. An additional TAZ with 3.01 to 6.34 households per acre is located south of CR 44 and east of Haines Creek Road/CR 473 near Lisbon. Along the SR/CR 44 corridor, transit-dependent population occurs north of 441 along CR 44 as well as on SR 44 from Eustis to the Volusia County line. In the census block north of SR 44 near Cassia, 31 to 37 percent of the population is 15 years old or less. Residents over the age of 59 make up 51 to 75 percent of the population along CR 44 near Lisbon and Fort Mason. Approximately 11 to 30 percent of the households south of SR 44 and west of the County line have no access to a vehicle. The population comprising 21 to 30 percent of the households in the census block south of CR 42 and north of SR 44 to the County line earn an income of \$10,000 or less.

5.7.1.8 Old Hwy 50 (CR50) – State Road 50 Bypass to Minneola

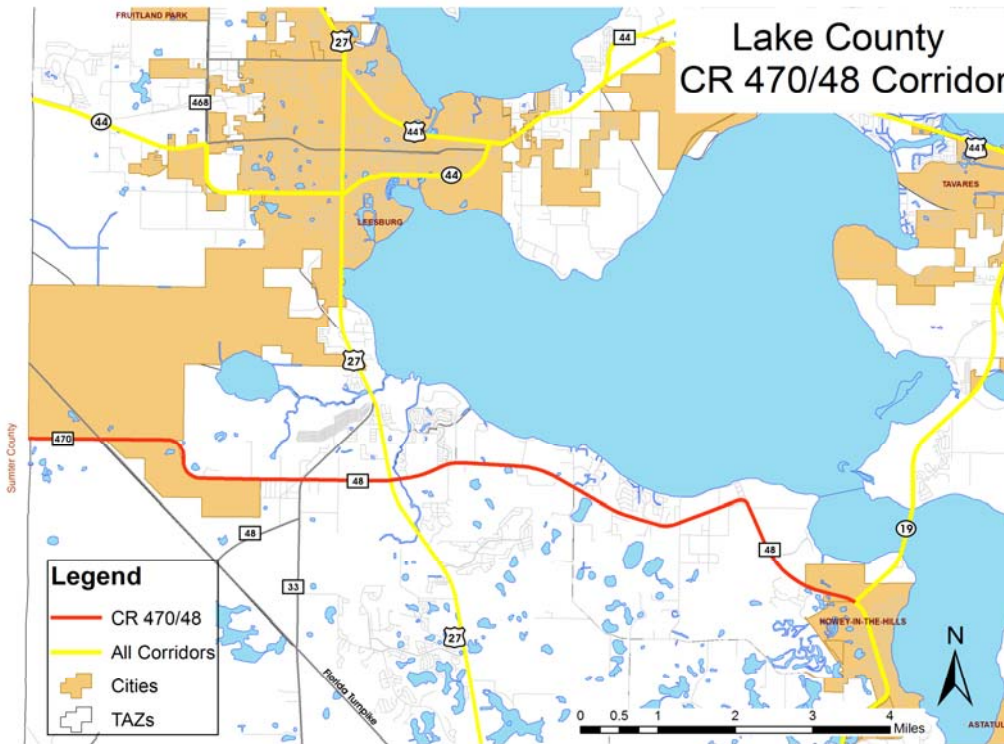


Old Highway 50 (CR 50) joins SR 50 just across the County line in Orange County. The road travels northwest to the Florida Turnpike and continues west to Minneola. CR 50 provides an alternate route to SR 50, and the roadway has paved multi-use trails along much of the route. The Hills of Minneola DRI will have direct access to CR 50, and a new interchange to the Florida Turnpike at Hancock Road will provide access to employment centers in Orlando. CR 50 is north of the Plaza Collina DRI and will provide access to that mixed used development as well.

Employment densities along CR 50 are highest in Minneola with 2.01 to 4.00 employees per acre. In 2020, the TAZ south the Florida Turnpike and north of SR 50 at the Orange County line is projected to have 4.01 to 8.00 employees per acre due to the Plaza Collina development. Household densities north of CR 50 and east of US 27 in Minneola are 2.01 to 3.00 per acre. Additional TAZs in Minneola are expected to have 2.01 to 3.00 households per acre in 2020.

As of the 2000 Census, the transit-dependent population was not significant along the CR 50 corridor for residents over the age of 59, incomes of \$10,000 or less, and no access to vehicles. The entire corridor has 21 to 30 percent of the population under the age of 16. This could be supported in part by the fact that Monte Verde Academy is north of the corridor on CR 455. The 2010 Census may reveal a greater transit-dependent population along CR 50, as the area has grown significantly since the 2000 Census.

5.7.1.9 CR 470/48 - Florida Turnpike, Okahumpka, US 27, US 19



County Roads 470 and 48 provide a minor east-west corridor that joins major employers in Sumter County with the north-south corridors of US 27 and SR 19. Major activity centers along the route include Coleman Federal Prison, SECO, and the Florida Turnpike/CR 470 employment center. While the communities of Okahumpka, Yalaha, and Howey-in-the-Hills are not identified as major population centers in the future, several DRIs along this corridor may warrant transit in the future. The Secret Promise DRI is a proposed 3,785 acre mixed use development that joins CR 470. The existing communities of Highland Lakes and Plantation at Leesburg are near the corridor as well.

Employment densities along the corridor are not significant; however, access to the Florida Turnpike, US 27, and SR 19 provide access to employment centers in Leesburg, Lady Lake and Eustis, as well as regional access to Orange County.

The community of Hawthorne on CR 48 has 2.01 to 3.00 households per acre with 76 to 99 percent of the residents over the age of 59. Additionally, with Secret Promise and Renaissance Trails, the TAZ south of CR 470 and west of the Florida Turnpike is expected to have 2.01 to 3.00 households per acre in 2020.

*5.7.1.10 CR 42 – Paisley to DeLand*

The final corridor is CR 42 which runs from Altoona at SR 19 through Paisley to DeLand in Volusia County. Currently, service is provided once a week between Paisley and DeLand. This corridor is primarily a rural corridor, with no major activity centers or DRIs. Much of the northeastern portion of the County is environmentally sensitive land and development is minimal.

Employment densities and household densities are not significant enough to produce choice riders along this corridor. Transit-dependent population along this corridor includes 31 to 37 percent of the population under the age of 16 south of CR 42 from Paisley to Lake Kathryn, 26 to 50 percent of the population age 60 and above north of CR 42, and 21 to 30 percent of the households making \$10,000 or less south of the corridor from Lake Kathryn to the County line.



### 5.7.2 Community Circulator Service

Currently, there are two community circulators in Lake County. The Villages has a community circulator operated by Sumter County and LakeXpress operates the Leesburg Circulator, with a circulator planned for Mount Dora, but not yet implemented. Additional community circulators may be needed to link communities to the major corridors.

The **Lady Lake** Community has been impacted by The Villages development, and has seen a number of big box retail developments emerge. The LakeXpress Cross County Connector currently serves the corridor.

The Golden Triangle encompasses the three cities of **Tavares, Mount Dora, and Eustis**. With the exception of the LakeXpress Cross County Connector and proposed Mount Dora Circulator, these three communities have no community circulator service. Many activity centers are located in the Golden Triangle and two proposed commuter rail stations. County government buildings and low income housing, as well as educational opportunities and Florida Waterman Hospital generate trips between the three cities. Employment and household densities support transit in these three cities.

Employment densities in Tavares and Eustis reach 8.01 to 17.01 employees per acre, and household densities reach 3.01 to 6.34 households per acre in all three cities. Transit-dependent residents are also located in the Golden Triangle, with several TAZs comprising of 11 to 20 percent of households with no access to vehicles and 11 to 20 percent of households with an income of \$10,000 or less. The elderly population is also prevalent making up 21 to 75 percent of the population in several TAZs in Mount Dora and Tavares. Eustis has a TAZ with 31 to 37 percent of the population age 15 years or less according to the 2000 Census.

The cities of **Groveland, Mascotte, and Minneola** have experienced significant growth since the 2000 Census, yet do not have any community transit service. Employment densities in these cities do not support transit; however, proximity to SR 50 and access to employment in Orange County may warrant connections to regional service along SR 50. Household densities in Minneola are strongest for transit with 2.01 to 3.00 persons per acre. Because the area has grown tremendously since the 2000 Census, the transit-dependent population may be different after the 2010 Census.



The city of **Clermont** has seen a dramatic increase in population since the 2000 Census, and LYNX operates the Clermont Express service to Orange County. Major Activity centers in Clermont include South Lake Memorial Hospital and Lake Sumter Community College/University of Central Florida. Several approved DRIs in or around Clermont include Lost Lake Reserve, Kings Ridge, and Plaza Collina.

Employment densities in Clermont along SR 50 are 4.01 to 8.00 employees per acre. Household densities in several TAZs in Clermont are 2.01 to 3.00 per acre with the Kings Ridges and Lost Lake Reserve adding another TAZ with 2.01 to 3.00 households per acre in 2020. In 2000, Clermont had a TAZ with 31 to 43 percent of the households making an income of \$10,000 or less and 31 to 44 percent of the households not owning a vehicle. While the percent of population over the age of 59 was not significant, 21 to 30 percent of the population is 15 years old or less.

### **5.7.3 Regional Needs**

As the Lake County Journey-to-Work Map reveals, a significant number of Lake County residents commute to other counties for employment. Most notably, 20,009 or 24.6 percent of Lake County residents commute to Orange County. This indicates the need for regional transit service in Lake County.

#### *5.7.3.1 Regional Bus*

Limited regional bus service is currently offered in Lake County. LYNX operates two routes from the southern portion of Lake County to employment centers in Orange County. Additionally, once weekly service is provided from Paisley to DeLand in Volusia County, and the LakeXpress Cross County Connector provides a connection to Sumter County at The Villages. Other potential corridors that could support regional transit as mentioned in the previous corridor descriptions include Mount Dora to Zellwood in Orange County via 441, and the Florida Turnpike, where several DRIs include new interchanges as part of their development. Additional regional connections to adjacent counties would be Marion and Sumter counties at The Villages, Sumter County via SR 50, CR 470 and SR 44, Polk County at Four Corners, and Volusia County via SR 44/CR 42.

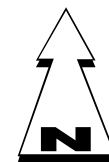
### 5.7.3.2 Commuter Rail

In addition to bus service, the Orlando area has studied commuter rail for the region. In August 2001, a feasibility study was conducted to assess the feasibility of the Northwest Corridor, the proposed commuter rail service along the Florida Central Railroad (FCRR/FCEN) from Eustis and Apopka to Downtown Orlando, as shown on **Figure 5-22**. Two stations identified in the study were located in Lake County, including:






- **Eustis:** This station would serve as a major park and ride station with automobile passenger drop off facilities and ancillary bus facilities; and
- **Tavares:** This station would serve as an activity center station with automobile passenger drop off facilities as well as bus drop off facilities.

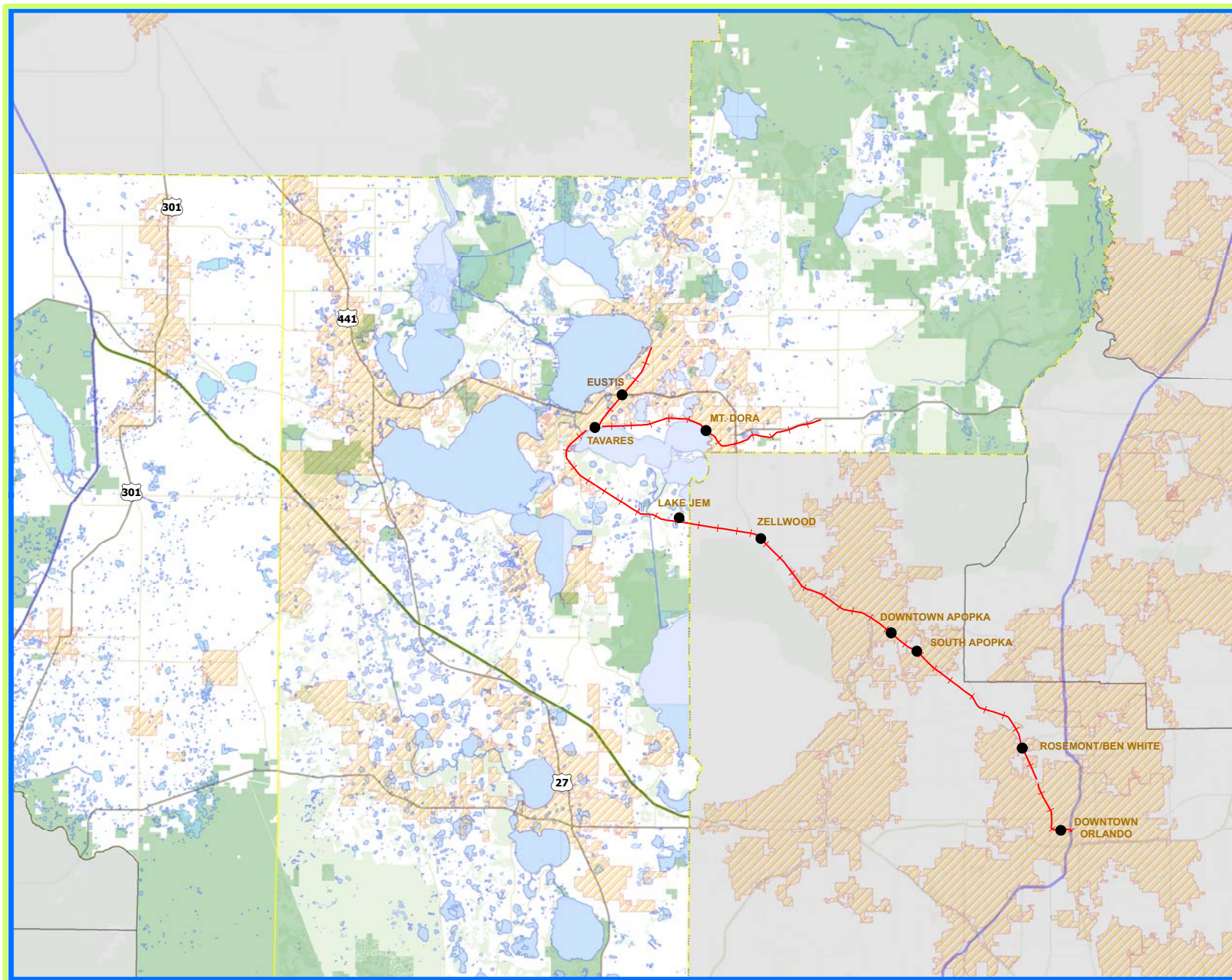
The 2001 Northwest Commuter Rail study discussed phasing project implementation by temporarily ending the commuter line in Zellwood to maximize opportunities for obtaining Federal, state and local funding. Since then, the Federal Transit Administration has created new categories of New Starts Section 5309 grant applications. As one example, there are categories for small capital projects that include Small Starts and Very Small Starts. The Implementation Action Plan will consider which Section 5309 grant applications may be appropriate and identify the necessary steps to pursue additional funds for studies as well as potential funding partners. The 2001 study also suggests that the Zellwood Station would adequately serve the Lake County market because one-third of the travel time from Eustis to Downtown Orlando via commuter rail occurs over the 13 mile stretch from Zellwood to Eustis. The 2001 study reveals that commuters entering the commuter rail system at the Eustis station, and possibly the Tavares station, would have a faster total travel time if they drove to the Zellwood station. Since 2001, Lake County Public Transportation has submitted a grant application for a Zellwood Connector bus route. The impact of this potential connection will need to be examined further.

# FLORIDA CENTRAL RAIL



**Legend:**

-  NW CRT Stops
-  Florida Central Rail
-  Cities
-  Interstate
-  Toll Roads



#### **5.7.4 Future Bus Stops and Park and Rides**

The current LakeXpress system is a combination of bus stops and flag stops. A joint effort with the Lake County Public Transportation Division and the Lake-Sumter MPO is underway to identify bus stops along the current routes. Two park and ride facilities are located on US 27 to accommodate the LYNX Express routes. One is located at SR 50 and US 27; the other is located at the Wal-Mart at US 27 and US 192. Currently, the Walgreens in Mount Dora is identified as the transfer point between the LakeXpress Connector and the Mount Dora Circulator. However, the County has access to 18 acres at Lincoln Avenue and US 441 in Mount Dora for park and ride. As regional service is implemented, the need for additional park and ride facilities will arise.

## Section 6.0 Public Involvement

The purpose of this section is to summarize the public involvement techniques developed to discuss transit and paratransit services in Lake County with the community as well as the results of those efforts. An FDOT-approved *Public Involvement Plan* (hereafter referred to as the PIP) was developed specifically for the Lake County TDP update. The PIP is consistent with the *Lake~Sumter MPO Public Involvement Plan* as well as the National Environmental Protection Agency (NEPA) and Council on Environmental Quality (CEQ) regulations for implementing NEPA requirements.

The PIP identified the proposed methods and strategies for offering public involvement opportunities to review the mission goals, objectives, alternatives, and ten-year implementation plan. Meetings were held with the Regional Workforce Development Board and the Lake~Sumter MPO to discuss the TDP, public transportation goals and objectives, alternatives, and its implementation plan. This section describes in detail the public involvement activities and findings of the efforts conducted in conjunction with this TDP update. The FDOT-approved PIP is included in **Appendix A**.

### 6.1 Overview

The findings of these public outreach activities indicate that Lake County Public Transportation is performing well. Lake County Public Transportation Division offers riders three types of services: (1) Lake County Connection paratransit and complementary ADA services; (2) fixed-route bus service through LakeXpress; and (3) inter-county bus service through an agreement with LYNX. LYNX operates the Clermont Express (Route 204) into Orlando from the park and ride in Clermont at US 27/SR 25. A second LYNX route operates from the Four Corners area (where Lake, Polk, Orange, and Osceola counties come together) to Disney (Route 55) via U.S. 192 with a park and ride location at the Wal-Mart shopping center on US 27.

Survey responses indicate that Lake County Connection's paratransit services are serving riders needs well. The fixed-route LakeXpress system has less than a year of experience and the public perception of the service is excellent. The results of the survey of existing LakeXpress riders (April 2008) are summarized below in **Table 6-3**. With seventy-six percent (**76%**) of existing LakeXpress riders rating the service **Very Good** and twenty-two percent (**22%**) of riders rating **the service Good**, the *overall satisfaction rating is ninety-eight percent (98%)*. Survey responses indicate that the LYNX services are also well-liked. South Lake Express Riders expressed an interest in more service in the midday period and late evening to accommodate leaving work early and returning home from work late.

## 6.2 Public Involvement Strategies

The purpose of the TDP public involvement strategies has been to gather input from citizens within the community regarding current transit services and future transit needs. It is imperative to include citizens early and throughout the planning process so that the public can help to identify mobility needs of Lake County residents and visitors. Strategies were developed to provide forums where citizens were able to review materials and offer their thoughts regarding the goals, objectives, and strategies for future transit service improvements. Opportunities were also provided for the public to review proposed alternatives and offer comments. Public involvement strategies used during the development of the TDP are summarized in **Table 6-1** and are consistent with the Lake~Sumter MPO Public Involvement Plan (PIP). Public involvement activities included stakeholder meetings, transit passenger surveys, operator surveys, public workshops, online surveys, and discussion groups.

**Table 6-1 – Public Involvement Strategies**

<b>Public Involvement Strategy</b>	<b>Objectives</b>
<i>Stakeholder Interviews</i>	To gather in-depth information from key stakeholders and community leaders regarding a specific topic using a pre-determined set of questions to help guide discussion.
<i>Transit Passenger Surveys</i>	To solicit involvement and participation from transit riders; to distribute pertinent information on public transit and specific project-related information; to receive public input to incorporate into the decision-making process.
<i>Transit Operator Surveys</i>	To utilize transit operator knowledge and daily interaction with passengers to obtain insight into the passenger's experience, verify input received from passengers, and provide important information related to the operation and safety of the bus routes and vehicles.
<i>Public Workshops</i>	Inform the public of ongoing projects, receive public input, and inform the public of additional public involvement opportunities.
<i>Online Surveys</i>	To solicit additional involvement and participation from the general public; to distribute pertinent information on public transit and specific project-related information; to receive public input to incorporate into the decision-making process;
<i>Discussion Groups</i>	Gather information regarding the attitudes and opinions of a small group of individuals through both a specific set of questions and open-ended discussion between participants.

## 6.3 Public Involvement Results

### 6.3.1 Stakeholder Interviews

It is imperative that stakeholder interviews are scheduled early in the development process of the TDP update in order to obtain valuable information from local and regional officials, community leaders, and other individuals who may be involved with the current and potential transit service within the Lake-Sumter urbanized areas. During the initial development of this TDP, stakeholders were identified by Lake~Sumter MPO staff and interviews were conducted with 11 stakeholders (as shown in **Table 6-2**), to discuss current transit service, the implementation and funding of new transit projects, and to focus on other transit issues of concern. The feedback received from stakeholders during these 60-minute interviews were used to identify opportunities and constraints with regards to current and future transit services.

**Table 6-2 – Stakeholder Interview Participants**

Name	Affiliation	Date of Interview
Diane Poitras	Florida Department of Transportation	May 1, 2008
Keith Mullins	Mayor, City of Clermont	May 5, 2008
Colleen McGinley	Tavares Chamber of Commerce	May 6, 2008
Sharon Kelly	MPO Board (Fruitland Park) & LakeXpress Taskforce	May 7, 2008
Dick Lastowka	Citizen's Advisory Board (Sumter County/The Villages)	May 7, 2008
Carlina Lindo	Sumter County Transportation Disadvantaged Coordinating Board (Community Action Agency)	May 7, 2008
Ben Biscan	Lake~Sumter MPO Board (Florida Central Railroad)	May 8, 2008
Jim Lowe	Lake County Transportation Disadvantaged Coordinating Board (Florida Association for Community Action)	May 8, 2008
Ed Smyth	Deputy City Manager, City of Leesburg	May 12, 2008
Richard Scott	Lake-Sumter Community College	May 13, 2008
Rick Golab	Florida Waterman Hospital	May 27, 2008

A series of 24 detailed questions were developed to facilitate the discussion and obtain stakeholders' perceptions of four major areas related to public transportation in Lake County, including:

- Existing Conditions;
- Transit Funding Issues;
- Traffic Congestion Issues; and
- The Future of Transit in Lake County.

For a copy of the interview script that was used for all of the interviews, along with the feedback received from stakeholders, refer to the *Lake-Sumter MPO Public Involvement Summary* developed in June 2008.

### 6.3.2 User Surveys

During the development of this TDP update, two (2) surveys were conducted in order to obtain feedback from transit passengers and operators. The surveys were designed to focus on passengers using the LakeXpress fixed-route service, commuters utilizing the LYNX South Lake Express service, and LakeXpress operators due to their daily interaction with passengers. For a sample of the surveys and detailed input obtained from passengers and bus operators, refer to the *Lake-Sumter MPO Public Involvement Summary* developed in June 2008.

The two on-board surveys were conducted as part of the public involvement process for the TDP update. A system-wide on-board survey was designed and conducted to obtain input from passengers using the LakeXpress fixed-route service. This survey was conducted on a single mid-week weekday. In addition to the LakeXpress on-board survey, a second survey was administered to commuters who utilize the South Lake Express service that is currently provided by LYNX between Clermont and Downtown Orlando along SR 50. Similar to the LakeXpress on-board survey, the commuter survey also was conducted on a single mid-week weekday.

#### 6.3.2.1 LakeXpress On-Board Survey

As previously mentioned, in order to solicit information from LakeXpress' fixed-route patrons, an on-board survey was conducted on Thursday, April 17, 2008. The survey questions sought demographic, travel behavior, and satisfaction information from the system's users. **Table 6-3** summarizes the results of the on-board survey effort.



**Table 6-3 – Summary of LakeXpress On-Board Survey Results**

<b>Question</b>	<b>Possible Responses</b>	<b>Results</b>
What LakeXpress route are you currently riding on?	Route 1 – US 441	68.3%
	Route 2 – Leesburg Circulator	31.7%
How would you rate your bus service experience?	Very Good	76.0%
	Good	22.0%
	Average	2.0%
	Poor	0.0%
What is the purpose of this trip?	Work	51.8%
	School/College	9.9%
	Shopping/Errands	14.9%
	Medical (Doctor, Dentist)	11.3%
	Visiting/Recreation	5.0%
	Other	7.1%
What purpose do you normally use the bus for?	Work	60.2%
	School/College	6.3%
	Shopping/Errands	14.8%
	Medical (Doctor, Dentist)	7.8%
	Visiting/Recreation	3.1%
	Other	7.8%
How do you usually get to the bus?	Walk less than 1 block	45.6%
	Walk 1 to 2 blocks	22.4%
	Walk 2 to 5 blocks	10.9%
	Walk more than 5 blocks	4.1%
	Bicycle	5.4%
	Drive	1.4%
	Get dropped off	6.1%
	Other	4.1%
Did you use a wheelchair to board a bus?	Yes	2.7%
	No	97.3%
How many trips do you make per week using public transportation?	1-2 trips	18.3%
	3-5 trips	19.7%
	5-6 trips	29.3%
	More than 6 trips	32.7%

**Table 6-3 – Summary of LakeXpress On-Board Survey Results**

<b>Question</b>	<b>Possible Responses</b>	<b>Results</b>
Do you have another travel option to make this trip if not by bus?	Yes	20.9%
	No	79.1%
What is the most important reason you ride the bus?	I don't drive	32.8%
	Car is not available	25.4%
	Bus is more economical	10.4%
	Traffic is too bad	0.0%
	Parking is difficult/expensive	0.0%
	Bus is more convenient	6.0%
	Don't have a valid driver's license	20.9%
Other	4.5%	
How long have you been using LakeXpress bus service?	This is the first day	3.9%
	Less than 3 months	22.9%
	3 to 6 months	35.9%
	Longer than 6 months	37.3%
Do you think there is a need for additional transit service in Lake County?	Yes	91.5%
	No	8.5%
If yes, what type of improvement would you most like to see?	More Frequent Service	13.5%
	Weekend Service	56.2%
	Later Evening Service	5.6%
	More Routes/Service	19.1%
	Other	5.6%
How do you usually get information on LakeXpress?	Bus Schedule	34.1%
	Bus Driver	38.7%
	Call LakeXpress	13.2%
	Notices on Buses	5.4%
	Newspapers	1.6%
	Television	0.0%
	Other	7.0%
What fare did you pay for this trip?	\$1.00 (standard fare)	69.7%
	\$0.50 (half fare)	16.6%
	10-Ride Pass	3.4%
	Daily Unlimited Ride Pass (Full or Half)	5.5%
	30-Day Unlimited Ride Pass (Full or Half)	4.8%

**Table 6-3 – Summary of LakeXpress On-Board Survey Results**

<b>Question</b>	<b>Possible Responses</b>	<b>Results</b>
Your age is?	15 years or younger	0.0%
	16 to 24 years	20.9%
	25 to 39 years	33.8%
	40 to 59 years	35.8%
	60 years or older	9.5%
What was the range of your total household income for 2007?	Less than \$10,000	38.5%
	\$10,000 to \$19,999	28.5%
	\$20,000 to \$29,999	17.7%
	\$30,000 to \$39,999	9.2%
	\$40,000 to \$49,999	3.8%
	\$50,000 or greater	2.3%

*6.3.2.2 Commuter Express Survey*

A second survey, similar to the LakeXpress on-board survey, was also administered to commuters who utilize the South Lake Express service that is currently provided by LYNX (the tri-county public transit system serving Orange, Seminole, and Osceola counties) between Clermont and Downtown Orlando along SR 50. The commuter survey was distributed to all riders at the Lake County park and ride in Clermont prior to their boarding the commuter express bus for each of its five morning trips. Similar to the on-board survey, the South Lake Express on-board survey also was distributed on Thursday, April 17, 2008. **Table 6-4** summarizes the results of the commuter express on-board survey effort.

**Table 6-4 – Summary of Commuter Express Survey Results**

<b>Question</b>	<b>Possible Responses</b>	<b>Results</b>
What is the purpose of the trip you are about to make?	Work	93.1%
	School/College	2.3%
	Shopping/Errands	2.3%
	Medical (Doctor/Dentist)	2.3%
	Visiting/Recreation	0.0%
	Other	0.0%

**Table 6-4 – Summary of Commuter Express Survey Results**

<b>Question</b>	<b>Possible Responses</b>	<b>Results</b>
Is this your first time riding the LYNX commuter express bus?	Yes	8.9%
	No	91.1%
How long have you been using the commuter express service?	Less than 3 months	22.7%
	3 to 6 months	11.4%
	6 to 12 months	27.3%
	Longer than 1 year	38.6%
How would you rate your typical express bus service experience?	Very good	65.9%
	Good	31.8%
	Average	2.3%
	Poor	0.0%
How many trips do you make per week using the commuter express?	1-2 trips	6.9%
	3-4 trips	13.6%
	5-6 trips	31.8%
	7-10 trips	47.7%
	More than 10 trips	0.0%
Will you use a wheelchair lift to board the bus for this trip?	Yes	2.2%
	No	97.8%
How did you get to this park-and-ride lot?	Walk less than 1 block	0.0%
	Walk 1 to 2 blocks	0.0%
	Walk more than 2 blocks	2.3%
	Drove and parked	70.5%
	Got dropped off	25.0%
	Bicycle	0.0%
How will you get from the Downtown Orlando transfer center to your final destination?	Other	2.3%
	Walk less than 1 block	17.8%
	Walk 1 to 2 blocks	28.9%
	Walk more than 2 blocks	20.0%
	LYNX local bus route	28.9%
	Bicycle	0.0%
	Taxi	0.0%
Get picked up	0.0%	
Do you have another travel option to make this trip if not by bus?	Other	4.4%
	Yes	81.0%
What is the most important reason you ride the commuter express bus?	No	19.0%
	I don't drive	2.2%
	Car is not available	6.7%
	Bus is more economical	71.1%
	Traffic is too bad	4.4%
	Parking is difficult/expensive	0.0%
Bus is more convenient	8.9%	

**Table 6-4 – Summary of Commuter Express Survey Results**

Question	Possible Responses	Results
	Don't have a valid driver's license	2.2%
	Other	4.4%
Are you satisfied with the number of and times of the daily express trips provided?	Yes	58.1%
	No	41.9%
What fare did you pay for the trip you are making right now?	\$1.75 (standard fare)	15.9%
	Single day pass	15.9%
	7-day pass	2.3%
	30-day pass	65.9%
Your age is?	15 years or younger	0.0%
	16 to 24 years	2.2%
	25 to 39 years	17.8%
	40 to 59 years	66.7%
	60 years or older	13.3%
What was the range of your total household income for 2004?	Less than \$10,000	2.3%
	\$10,000 to \$19,999	2.3%
	\$20,000 to \$29,999	4.5%
	\$30,000 to \$39,999	6.8%
	\$40,000 to \$49,999	13.6%
	\$50,000 or greater	70.5%

### 6.3.2.3 LakeXpress Bus Operator Survey

A transit agency's bus operators interact with passengers on a daily basis, so they represent an important source of beneficial information and are often able to provide insight into the passenger's experiences, validate on-board passenger survey results, and provide key information related to the safety and operations of the bus routes and vehicles. As such, a survey was developed and distributed to all LakeXpress bus operators to obtain their assessment. Lake County's fixed-route service provider, MV Transportation, distributed and collected the transit operator surveys. All nine (9) of LakeXpress' active drivers participated in the survey.

Drivers were asked to rank the five (5) most frequent complaints expressed by passengers. According to the responses received by drivers, the following issues represent most common complaints voiced by the passengers:

- lack of bus stops and amenities;
- need for later evening/night service;

- need for weekend service; and
- need for more service to other counties (e.g., Sumter and Orange).

The drivers also were provided with a list of nine (9) possible improvements to the system and were asked to rank which improvements would be most helpful to the system. Most of the operators who completed a survey indicated that more time is needed in the schedules and that LakeXpress should lower its fares. The majority of the responding operators also agreed with the passengers that later evening service should be provided. The drivers also were asked to identify and discuss potential safety problems on any of the current LakeXpress routes. Following are the specific comments that were received from the drivers who responded to this question.

- Passengers need to know we do not pick up or drop off at red lights, stop signs, or turning lanes. Buses need signs on the back to alert drivers that frequent stops are made.
- Passengers pass in front of buses to cross the street.
- Parking is bad in Downtown Tavares. Large trucks park and wait by the Lake County administration building and they stick out too far. This causes the bus to have to move over to get around them and approaching vehicles do not slow down or stop.
- It is not safe for riders to be flagging down buses at intersections and turn lanes.
- More time is needed [for drivers] to wake up (maybe changing buses more often and turning the four-hour break into two separate two-hour breaks).

Next, the drivers were asked whether there were any run times on routes or route segments that are difficult to maintain. Following are comments regarding specific segments along each route that drivers, who responded to this question, indicated were problematic:

- Route 1:
  - No specific route segment provided.
- Route 2:
  - A lot of wheelchair activity slowing the route down; and
  - Route difficult from 11:00 a.m. to 3:00 p.m.

Finally, the last survey question asked the drivers to provide any other comments that they thought might be useful to LakeXpress helping improve its service. It was suggested that a left-turn arrow is needed at Leesburg Regional Medical Center and a left-turn light is needed at 12<sup>th</sup> Street and Main Street.

### 6.3.3 Public Workshops

Public workshops provide a forum for obtaining public opinions regarding public transit needs and services. These workshops utilized an “open-house” format and included presentations, maps, surveys, dot polling, visual displays, and other informational materials. These techniques are designed to be informal and educational to the public. Public workshops have been scheduled, in coordination with the LSMPO, throughout the development of the TDP update and have been held at venues and hours in areas that will promote greater public participation. **Table 6-5** presents a list of the scheduled public workshops.

Of the 177 surveys completed by public workshop participants, many respondents (48%) believed that the LakeXpress service was essential to meeting the needs of Lake County citizens and visitors. In addition, many respondents (76%) believed that traffic congestion in Lake County is a problem, which is supported by the fact that a majority of respondents (92%) felt there is a need for additional transit service throughout the county and (70%) are willing to pay additional local taxes for an expanded system. With the majority of respondents (54%) having a household income of less than \$30,000, over 50% of the respondents would consider using transit services when gas is at a cost of \$4.00 per gallon.

For further details regarding the public involvement plan and activities, please refer to **Appendix A**. Notices for the public workshops were distributed in accordance with Lake County and the Lake~Sumter MPO public notification requirements, in addition to any other marketing materials used to promote greater public participation at the workshops.



## Public Workshops

WE WANT YOUR INPUT!

Do you have ideas on how we can improve LakeXpress bus service?

During this second round of open house public workshops, we are asking you to help us prioritize the recommendations that we developed based on the input we received from our May & June meetings.

The workshops are “drop-in” style so take a few minutes and stop by and tell us what you think.

WHERE (Attend Any Meeting):

Monday, August 11	Tuesday, August 12	Wednesday, August 13
<p><b>10 am - 12 pm</b> Lake County Administration Building-Rotunda 315 West Main Street Tavares, FL 3277</p> <p><b>2 pm - 4 pm</b> Eustis City Hall, Lobby 10 N. Grove Street Eustis, FL 32727</p>	<p><b>10 am - 12 pm</b> Mt. Dora City Hall, Lobby 510 N. Baker Street Mount Dora, FL 32757</p> <p><b>2 pm - 4 pm</b> Minneola City Hall, Lobby 800 N. US Hwy 27 Minneola, FL 34715</p>	<p><b>10 am - 12 pm</b> Fruitland Park City Hall, Lobby 506 W. Berckman Street Fruitland Park, FL 34731</p> <p><b>2 pm - 4 pm</b> Leesburg Library, Room A 100 E. Main Street Leesburg, FL 34748</p>

Lake-Sumter MPO  
1616 S. 14th Street  
Leesburg, FL 34748  
www.LakeSumterMPO.com  
www.ridelakexpress.com





If you have any questions, please contact:  
**MPO Office:** (352) 315-0170 x228 | **LakeXpress:** (352) 326-8637 | **Lake County Connection:** (352) 326-2278

**Table 6-5 – Public Workshops**

#	Date	Location
1	May 28, 2008	Eustis Senior Center
2	May 28, 2008	Lake County Administration Center
3	June 5, 2008	Tavares City Hall
4	June 5, 2008	Umatilla Health Fair
5	June 6, 2008	St. Stephens Methodist Church
6	June 9, 2008	St. Stephens Methodist Church
7	June 9, 2008	LakeXpress Transfer Center (Leesburg)
8	June 10, 2008	King Center (Mt. Dora)
9	June 10, 2008	Mascotte Civic Center
10	June 13, 2008	Cagan Crossing Community Library (Clermont)
11	August 11, 2008	Lake County Administration Building
12	August 11, 2008	Eustis City Hall
13	August 12, 2008	Mt. Dora City Hall
14	August 12, 2008	Minneola City Hall
15	August 13, 2008	Fruitland Park City Hall
16	August 13, 2008	Leesburg Library

#### **6.3.4 Online Surveys**

Online surveys were conducted through the Lake~Sumter MPO website as a tool to obtain additional public input in the development of this TDP update. The interactive survey was made available to the public from June 2-17, 2008, and provided interested parties with an opportunity to voice concerns in the absence of attending one of the public workshops. A final, shortened version of the survey was made available through July 2008 as a final outlet for citizens to voice concerns during the TDP update process. These surveys were designed to focus on which transit options and locations the public would be most interested in seeing implemented and to obtain additional information on transit concerns in the County.

Extending bus service hours, increasing service frequency, and adding Saturday services were determined to be the most favorable options for extending existing transit service. Regional connectivity to areas such as Orlando were supported by 80 percent of respondents, and connections to Disney as well as access within the county to social and municipal services were also noted as major destinations. The majority of respondents (89 percent) supported the



expansion of transit services, with approximately 81 percent of respondents indicating a willingness to pay additional local taxes to support an expanded system.

Respondents also indicated a desire for premium transit services, such as new local/express bus services, bus rapid transit, light rail, and commuter rail. In particular, premium services such as new local/express service, bus rapid transit on US 441, and commuter rail to Tavares/Eustis from Orlando were found to have the strongest favorability rankings and smallest variance among respondents. For a sample of the survey and detailed input and statistics obtained, refer to **Appendix A**.

### **6.3.5 Discussion Groups**

Three (3) discussion groups were conducted to obtain input specifically related to public transit service and covered similar topics such as service quality, service improvements, and transit needs. One of the discussion groups was conducted with current LakeXpress passengers to help represent the “transit user” perspective. In coordination with Lake County and the Lake~Sumter MPO staff, two other group discussions included “non-transit” users from the local chambers of commerce, health, business, commerce, and educational communities.

Park and ride amenities were of key importance to transit users. Many participants wanted to be certain that LakeXpress staff knew that most of the parking spaces at the Clermont Express park and ride are filled on most days by 10:00 a.m. They were concerned that this park and ride location was already experiencing over-crowding.

Participants also asked whether it would be possible to park at existing business locations along the service routes or at boat ramp parking lots. It was noted that businesses typically look for locations where additional customers can be generated, and might be agreeable to such an arrangement as long as adequate parking remains available for non-transit customers. For any park and ride location, a formal agreement and analysis of shared parking capacities should be conducted before it is initiated.

A discussion of transit costs led to questions regarding local funding sources. In the future, the County will focus on paying for transit along major transportation corridors and will work with cities to identify services and funding sources consistent with local transit needs.

There was confusion among participants regarding LakeXpress and Lake County Connections services and buses. Some participants thought that the two services were provided by two different agencies. Many thought that LakeXpress service was an MPO activity. Others thought that Lake County Connection vehicles were LakeXpress buses. Some people had not used

LakeXpress because they did not understand where the stops were or that they were uncertain while waiting. Participants inquired whether efforts would be made to make the LakeXpress and Lake County Connection vehicles readily identifiable. It was agreed that this would make it easier for citizens to recognize that both services were operated through the County.

Attendees also expressed a desire for stops to be developed in a context sensitive manner. Shelters, benches, signs, and other passenger amenities should both reflect community design standards while still making services immediately recognizable to citizens.

Finally, as new residential developments are approved and build out, greater connectivity will be needed to meet the transit needs of a growing population. Attendees noted that as DRIs like the Hills of Minneola and Sugarloaf develop, there will be a need to connect the CR 561 Corridor in Clermont to current services. For a full list of Discussion Group questions, refer to **Appendix A**.

## **6.4 Conclusions**

For a system with less than a year of experience, the public perception of the service is excellent with only minor concerns identified. While these items are relatively minor, they will require additional funding to remedy in a period of significant fiscal constraints. Most LakeXpress and South Lake Express patrons use the service to get to work and are of working age (25-59 years of age). Many LakeXpress riders do not have an alternative means of transportation (79%), most are using the bus to get to work (60%), and many have annual household incomes below \$30,000 (85%). The survey indicates that LakeXpress is filling a critical local need for those members of the community that are most in need financially. LakeXpress is getting people to work who have no other means of transportation. Essentially, this service is reducing unemployment in Lake County.

Surveys of South Lake Express riders indicate that they ride transit because it is more economical and convenient. Both groups of riders appreciate the bus service with roughly **98 percent** of both survey groups rating service as **Good** or **Very Good**.

During the TDP public workshops, the public has indicated that if transit were convenient, accessible, safe, and efficient they would choose transit. Approximately 70 percent of workshop respondents were willing to pay additional local taxes for an expanded transit system. The surveys indicate a desire for improving existing services and offering premium transit services.

The community is seeking near-term improvements to fixed-route bus service that will provide residents with a viable alternative to riding in a car that is both convenient and gets them where they need to go.

LakeXpress riders and non-riders alike remain hopeful and seek a future where commuter facilities such as park and ride lots as well as premium transit services are offered. The online surveys indicate a desire for improving existing services and offering premium transit services such as express bus service, light rail, commuter rail, connections to Disney, fast service to Downtown Orlando, and access within the County to social and municipal services. There is some inconsistency in opinions regarding the timeframe for implementing commuter rail, however these transit services are definitely among the community's aspirations.

## Section 7.0 Marketing and Monitoring

The purpose of this section of the Transit Development Plan (TDP) is to discuss the need for and strategies for publicizing the public transportation services provided by the Lake County Public Transportation Division through its contract with M. V. Transportation. In addition, the monitoring section discusses the performance since the last TDP was developed in comparison to identified goals and objectives. The analysis of marketing and monitoring is a necessary guidepost to indicate the progress that has been made toward meeting identified goals and objectives; it is a measure of progress and a commentary on changing conditions.

Based upon the analyses performed for this TDP, the LakeXpress and Lake County Connection services are on-target. The LakeXpress is a very new service and peer comparisons are essential to identify future service needs and capabilities. It should be noted that a number of comparisons are made to other transit providers and to the goals identified in previous planning documents. Before reading these comparisons, it should be noted that they are very limited in their applicability since LakeXpress has only been in operation since May 21, 2007 and fares were not collected until August 2007. Additionally, since service began fuel prices have risen dramatically. These factors should be considered while reading this section.

### 7.1 Marketing Program

Marketing activities are required to let the public know what services are available and who to contact to find out additional information – *visibility increases utilization*. Transit service marketing includes a range of techniques, such as easy to read schedules and route maps, brand imaging on buses and bus stops, direct advertising to target market groups, and fare incentives such as discount passes. For a marketing campaign to be successful, an easily recognizable logo and transit vehicle label is needed. LakeXpress has developed an easily identifiable image and it has been suggested that LakeXpress and Lake County Connection services be branded under a common brand so that the public is aware that the Lake County Public Transportation Division is responsible for both services.

#### 7.1.1 Marketing Goals & Objectives

As stated in **Section 3** of this TDP, the marketing goals and objectives are listed below.

**Goal 4: Increase the visibility and utilization of public transportation services through marketing, education, improvement of existing services, and the development of new services.**

- Objective 4.1:** Conduct a pro-active and ongoing public outreach program to educate citizens and visitors about the availability and characteristics of existing and near-term future public transportation services.
- Objective 4.2:** Develop an on-going public involvement process through surveys, discussion groups, interviews, and public workshops.
- Objective 4.3:** Market existing public transportation services as a travel option to specific market segments based on the characteristics and purpose of various services as they are implemented.
- Objective 4.4:** Pursue marketing opportunities through community associations and clubs, e.g., newsletters, closed-circuit television in The Villages.
- Objective 4.5:** Implement bus, shelter, and bench advertising based on approved contract with a vendor.

### **7.1.2 Public Input Regarding Transit Marketing**

Public involvement efforts for this TDP update in the form of an on-line survey, an on-board rider survey, a bus operator survey, and stakeholder interviews reveal that additional marketing is needed, particularly for targeting choice riders. Results from these efforts regarding marketing of the system can be summarized as follows:

- In the on-line survey, 64 percent of the respondents do not believe that LakeXpress has done an effective job marketing the transit service options;
- On-line survey responses regarding additional steps that should be taken to increase the use of public transit included marketing about the service and additional public outreach;
- Over 90 percent of current LakeXpress riders participating in the on-board survey indicated that the availability of bus information and the user-friendliness of bus information is good or very good;
- As part of the on-board survey results, 39 percent of the riders get information about LakeXpress from the bus drivers, 34 percent from the bus schedule, and 13 percent call LakeXpress directly. While the on-board survey did not include the internet as a response choice for this question, seven percent (7%) of the responses answered “other,” which may include internet research.

- Three of the nine LakeXpress bus operators indicated that they have heard complaints from passengers that the bus schedule is hard to understand;
- Regarding possible improvements to the system, eight bus operators identified the need to provide better route and schedule information;
- Of those that indicated marketing was effective, several responses suggested that additional marketing should be considered to reach new groups of potential riders.

### **7.1.3 Marketing Strategies**

Lake County Public Transportation faces a number of challenges in improving its marketing strategy. Funding transit marketing is an obstacle, as many forms of advertising can be costly, such as radio and television advertising. Additionally, because LakeXpress is a new service, building community awareness of the service is vital for success. Marketing efforts should focus on the new fixed route services, encouraging all who are able to use it to ride.

The LakeXpress website provides a valuable marketing tool for existing and future transit riders to access information about the service. Lake County Public Transportation should continue to promote the service through the website, as well as to riders who may not have access to the internet by placing route maps and schedules at key bus stops and major travel generators. Additional materials could be distributed through a speaker's bureau at various meeting opportunities. Lake County Public Transportation should also continue to brand the LakeXpress service on all marketing collateral, bus stops, and buses.

The previous TDP presented an outline of possible marketing techniques for the new fixed-route transit service. Marketing techniques were categorized into four categories, with the extent of use, evidence of success, and perceived success provided for each technique included based on observations of marketing activities of transit systems throughout the United States. The applicability of the marketing techniques for Lake County was identified, as well.

Since LakeXpress service has been in operation for a year now, the previous TDP strategies are reviewed below and modified to accommodate the goals and objectives for existing and future transit service. One focus of the marketing effort should be to continue to introduce the fixed-route service to residents and employers who are not yet familiar with LakeXpress. In addition to marketing the system specifically, it is also important to raise awareness of transit in general as a transportation option; particularly since additional road widening will be limited.

## Strategy 1: Transit Pricing

**Table 7-1** provides a summary of fare instruments and fare-oriented marketing techniques, as presented in previous TDP efforts. The applicability of each of these techniques for Lake County has been reviewed and updated.

The regular one-way bus fare for LakeXpress fixed-route bus service is \$1.00. During the public involvement efforts, passengers indicated that this fare is perceived as appropriate and fair for the services provided. The \$1.00 is considered to be within the expense range of most transit patrons in Lake County. It is also a fare that can easily be handled by traditional types of fare collection systems. As service matures, Lake County may want to revisit the recommended fare policy and structure in order to account for increasing operating costs and cost of living increases.

One measure for tracking and monitoring the effectiveness of the transit system is the fare box recovery ratio. The fare box recovery represents the percent of total operating costs recovered through fare box collections. National fare box ratios average about 30% and fare box ratios in Florida average about 20%. For the period from August 2007 through May 2008, fare box recovery was roughly five percent of total operating costs. It should be noted that this fare box monitoring period does not include a full year. As the system grows, fare box recovery ratios should be monitored after the first two to three years of fare collection to ensure appropriate fare policies are being implemented by the transit agency.

For systems receiving federal funding, the Federal Transit Administration (FTA) requires the availability of reduced fares during non-peak hours of service for elderly persons (65 years and older) and persons with disabilities. Lake County offers discounts off of the full fare various transit patrons. The Lake County reduced fare is a 50% fare reduction be applied for elderly over 60 years, disabled citizens, and students. To qualify, patrons will have to show an appropriate identification. This identification could be issued through Medicare, school, or the transit system. No fare is charged for children five years old or younger traveling with a chaperone. Patrons who are certified under the ADA program also ride the regular fixed route bus services for free.

Lake County offers two types of passes, both with unlimited rides, but one for daily use (\$3.00) and one good for a 30-day period (\$30.00). In addition, 20-ride passes are available for \$16.00 and 10-ride passes are available for \$8.00. Although fares are an important source of revenue, they make up a relatively small percentage of Lake County Public Transportation's overall budget. Discounted fares and passes are a valuable way to create rider loyalty. It is important to structure pass programs to avoid negative impacts on revenue. The current LakeXpress monthly pass fare structure is 15 times a daily round-trip fare. This multiple is appropriate for an agency of this size, and is sufficient to encourage rider loyalty.

**Table 7-1 – Fare and Pricing Efforts**

<b>Technique</b>	<b>Extent of Use</b>	<b>Evidence of Success</b>	<b>Perceived Success</b>	<b>Applicability to Lake County</b>
Employer Pass Programs	Some	Positive	Very Successful	High - but limited number of large and medium sized employers
University Programs (U-Pass)	Wide	Not Available	Not Available	High – Can be a joint effort with Lake-Sumter Community College
Discounted Passes	Wide	Negative	Quite Successful	High – encourages rider loyalty and discretionary trips
Free Ride Offers	Wide	Positive	Very Successful	Some - provides incentive for trying bus service
Shop and Ride	Some	None	Worthwhile	High - expand grocery bus service concept
Free Ride Days	Wide	Negative	Very Successful	Limited - does not attract many new riders
Peak/Off-Peak Fares	Some	Positive	Worthwhile	None - not applicable for current markets
Free Fare Zones	Some	Positive	Quite Successful	None - service area too small

The previous TDP recommended free ride offers, shop and ride, discounted passes, and employer pass programs. LakeXpress has implemented discounted passes for seniors, students, and passengers with disabilities. Discounts are also provided to persons with a valid Medicare card and veterans with a DD-214. Additional pass efforts should emphasize the following:

- **Employer Pass Program:** Coordinate with large and medium sized employers to develop pass programs for those employers; and
- **University Program (U-Pass):** Implement a U-Pass program with Lake-Sumter Community College via a joint partnership to provide passes and other payment options for students, such as specialty passes, unlimited access, reduced-single fare, or joint transit agency-university fare cards.



#### 7.1.4 Strategy 2: Promotional Efforts

**Table 7-2** provides a summary of promotion-oriented marketing techniques, along with recommendations regarding the applicability of the marketing techniques for use in Lake County, as presented in the previous TDP effort and updated for 2008.

**Table 7-2 – Promotional Efforts**

<b>Technique</b>	<b>Extent of Use</b>	<b>Evidence of Success</b>	<b>Perceived Success</b>	<b>Applicability to Lake County</b>
Telephone Info. Service	New	Positive	Quite Successful	High - customer service representatives may be expensive/consider automated information
Direct Contact Marketing/ Speakers Bureau	New	Positive	Quite Successful	High - presentations to community groups/ information booths/transit fairs
Merchant Discounts	New	None	Quite Successful	High - services designed to transport customers to commercial businesses
Promotional Items	Wide	None	Worthwhile	Some - may be expensive/seek donations from community
Anniversary Promotions	Wide	None	Quite Successful	Some - may be expensive/seek donations from community

LakeXpress has the opportunity to expand their promotional efforts by incorporating a telephone information system as a marketing strategy. A telephone information system that includes voice mail or automatic voice message capability could be easy to implement and would give LakeXpress customers another avenue to obtain route, stop, or schedule information.

Another strategy applicable to Lake County residents would be direct marketing efforts to target groups, particularly at hospitals, large employers, large retailers, retail associations, restaurant associations, retirement communities, community colleges, visitor's bureaus, and other locations with high concentrations of potential riders. Additionally, partnering with merchants to provide discounts, such as The Villages or Lake Square Mall, would provide an incentive for riders to use transit to access these travel generators.

### 7.1.5 Strategy 3: Media Outreach and Advertising

**Table 7-3** lists the media outreach and advertising efforts recommended in the previous TDP, with recommendations updated for 2008.

**Table 7-3 – Media Outreach and Advertising Efforts**

<b>Technique</b>	<b>Extent of Use</b>	<b>Evidence of Success</b>	<b>Perceived Success</b>	<b>Applicability to Lake County</b>
System Maps	Wide	Conflicting	Very Successful	High - understanding of routes and schedules
Community Access Channels	Some	None	Worthwhile	High - county wide/communities
Community Education	Wide	None	Quite Successful	High - inexpensive, use with direct marketing
Internet	New	None	Worthwhile	High – inexpensive, can be priced according to results
Newsletters	Some	None	Worthwhile	Some - requires labor commitment but can be inexpensive
Newspaper	Wide	Positive	Quite Successful	Limited - cost may be too high
Radio	Wide	Positive	Quite Successful	Limited - cost may be too high
Television	Some	Positive	Quite Successful	Limited - cost may be too high
Outdoor	Some	None	Worthwhile	Limited - cost may be too high

Among the printed media, route schedules and maps are an invaluable tool for transit riders to learn about the system. LakeXpress is currently working with various city utilities to place information about the fixed route service on utility bills. As a continuing marketing strategy from the previous TDP, LakeXpress should provide customers access to printed route maps and

schedules that are easy to read and understand. As in past years, mass media efforts remain very expensive, but the availability of more targeted media, particularly internet outlets, has increased.

The current LakeXpress service is already linked to the Lake County web pages, and features system maps, schedules, and other relevant information. Additional media outreach and advertising opportunities for Lake County include:

- **Internet Direct Sales:** Lake County Public Transportation should explore the possibility of adding direct sales by a click link from the web page (“Buy your pass now”) on their website; and
- **Community Access Channels:** This medium would provide information about LakeXpress through the use of community access channels, such as city or county sponsored television channels, as well private community access channels; and
- **Utility Statements:** Lake County is also working with cities that have utilities to place transit service information on customer statements.

#### 7.1.6 Strategy 4: Additional Outreach Efforts

Table 7-4 displays additional potential outreach techniques listed in the prior TDP effort that are still applicable.

**Table 7-4 – Additional Outreach Efforts**

<b>Technique</b>	<b>Extent of Use</b>	<b>Evidence of Success</b>	<b>Perceived Success</b>	<b>Applicability to Lake County</b>
Discussion Groups	Some	Positive	Quite Successful	High - special form of direct contact marketing
General Public Surveys	Some	None	Worthwhile	Some - community perception of transit
On-Board Surveys	Wide	Positive	Worthwhile	Some - inexpensive with driver cooperation

As the fixed-route service matures, on-board surveys will play an important role in helping plan future service improvements. Such surveys can be costly, but costs can be reduced by coordinating with drivers to distribute and collect the surveys. The following section on

performance monitoring provides more discussion about on-board surveys. Surveys of the general public are best included in a more general MPO transportation planning survey effort with specific transit services questions.

## **7.2 Monitoring Program**

A monitoring program is a key instrument for measuring the success of transit service. Performance standards that measure the efficiency and effectiveness of service help to guide future service decisions. Data used to measure performance include Annual Passenger Miles, Annual Vehicle Revenue Miles, Annual Vehicle Revenue Hours, Operating Expenses, and Passenger Trips. Typically, historical data are used to determine these standards; however, LakeXpress is a new system and only has one full year of data collection. The 2005 TDP conducted a peer review analysis to determine performance standards for the LakeXpress system with the understanding that meeting peer standards cannot be attained until the third year of operation.

Because the 2005 TDP provided a comprehensive analysis of peer systems, a complete peer review is not necessary for this update. With the implementation of LakeXpress service and the availability of Fiscal Year (FY) 2006 peer system data, it is beneficial to look at the peers identified in the 2005 TDP to compare recent year data with actual LakeXpress performance.

LakeXpress began service in May 2007. As with most systems, the fiscal year begins in October. Therefore, partial year data are available from May 2007 to September 2007, and October 2007 to May 2008. However, it is important to note that when determining performance, LakeXpress fare boxes were not collected during the first three months of operations. In order to compare an entire year of data for the purpose of this analysis, data from June 2007 to May 2008 were used to determine LakeXpress performance results. The National Transit Database provides the validated source data for a peer analysis, with the most recent year available being FY 2006 (October 2005 to September 2006). It is important to note that these differing time frames do not allow a direct comparison, particularly since outside factors such as rising gas prices have likely affected the recent operating expenses, as well as ridership, for all of the peer transit agencies in this analysis. Additionally, LakeXpress did not collect fares during the first three months of operation; therefore, the data may be skewed.

The 2005 TDP compared five peer systems for the fixed-route peer analysis. These systems are as follows:

- Bay County Council on Aging (Bay Town Trolley);
- Ocala/Marion County MPO (SunTran);
- St. Lucie County Council on Aging (Treasure Coast Connector);

- Winter Haven Area Transit (WHAT); and
- Hernando Express (THE Bus).

The 2005 TDP used FY 2002 data for all of the peers with the exception of THE Bus and Treasure Coast Connector, which were new start-ups in 2002. For these two peers, unvalidated data for FY 2003 was used. It should be noted that St. John's County has recently made a transition from a rural to a small urban transit system. Because it is a new system, data are not available for this analysis. However, future analysis should include St. John's County as a peer system.

### 7.2.1 Performance Measures

Performance standards help measure the efficiency and effectiveness of the service, as well as cost effectiveness of the system. Four performance standards are analyzed for LakeXpress. Three of these standards are identified in the 2005 TDP, and include Operating Expenses per Revenue Hour, Operating Expenses per Passenger Trip, and Passengers per Revenue Mile. A fourth performance standard is included in this update, Passengers per Revenue Hour.

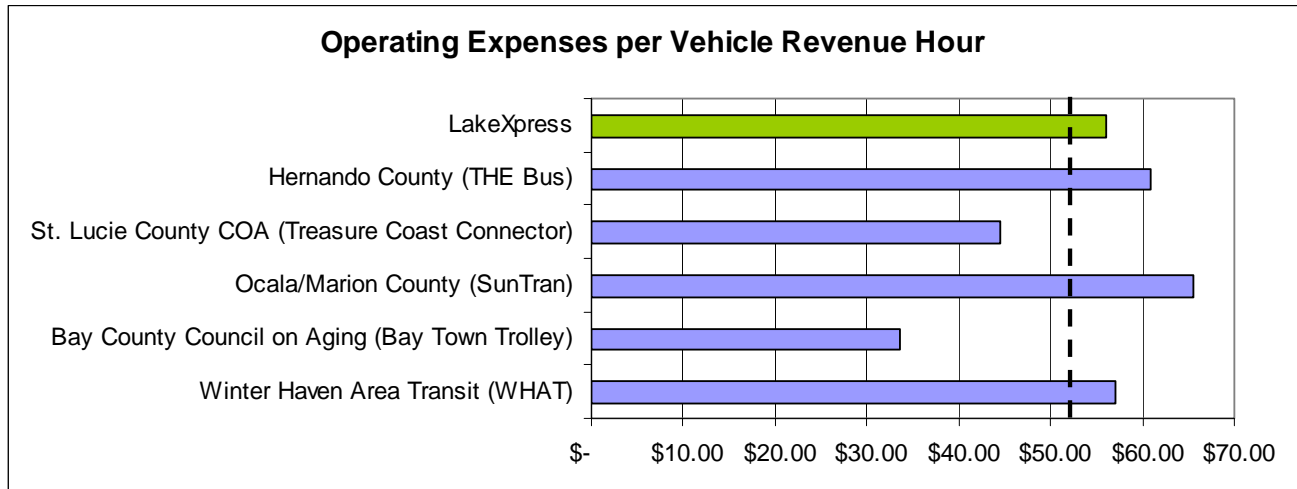
A comparison of the peer systems in FY 2006 and LakeXpress after the first year of operation is provided below. This is followed by graphs of FY 2006 peer system performance, as well as the current LakeXpress average for each performance measure. The vertical dotted line in each graph indicates the FY 2006 average of the peer systems.

For new systems start-ups, such as LakeXpress, two years is typically required for ridership to mature. Therefore, the data provided in this analysis are intended to assess how the system is doing after its first full year of operations relative to the peers. At the end of its second full year, LakeXpress should revisit these performance measures and set standards for the third year of operation. These standards may need adjustment again with the implementation of the Mount Dora Circulator, after two full years of ridership data are collected.

#### Operating Expenses per Revenue Hour

This measure determines the efficiency of the transit service. The 2005 TDP used the peer average of \$36.00 for the first three years of service. In FY 2006, the peer average was \$52.33 (see dashed line on **Figure 7-1**); a 47 percent increase from the previous TDP, indicating operating expenses may have increased for all systems. From June 2007 to May 2008, the LakeXpress average cost per revenue hour was \$55.95. This is seven percent (7%) higher than the current peer average, with Bay Town Trolley and Treasure Coast Connector having the lowest costs per revenue hour of service.

**Figure 7-1 - Operating Expenses per Vehicle Revenue Hour Comparison**

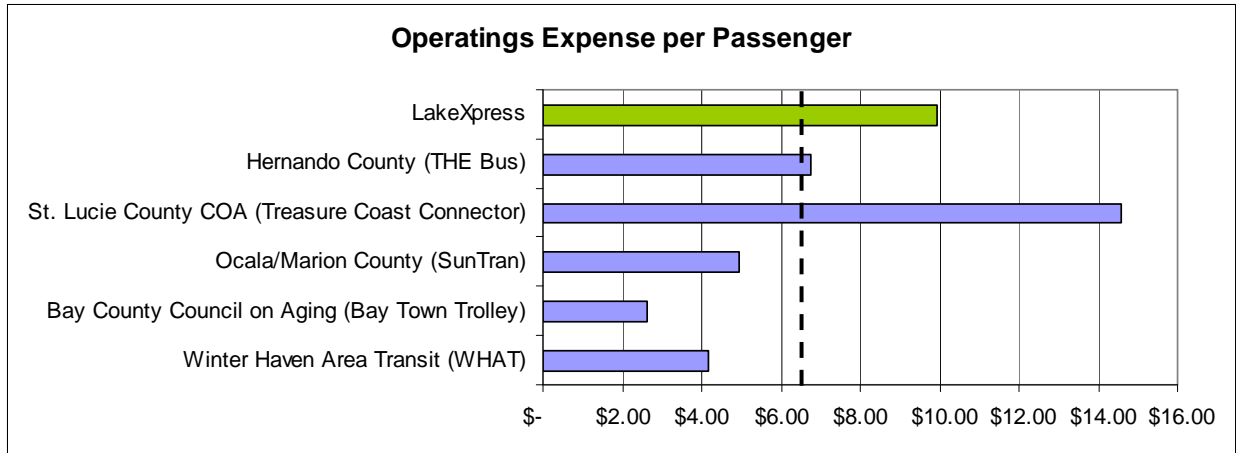


### Operating Expenses per Passenger Trip

This performance measure determines the cost effectiveness of the transit service. The previous TDP recommends setting the standard at \$16.00 for Year 1, \$12.00 in Year 2, and the peer analysis average of \$8.00 beginning in Year 3. The current peer average cost per passenger trip is \$6.62 (see dashed line on **Figure 7-2**), with LakeXpress averaging \$9.92. After a year of service, the LakeXpress operating expense per passenger trip is sixty percent (60%) lower than the target and twenty percent (20%) lower than the target for Year 2. These expenses will likely increase with escalating gas prices and projected wage rate increases.

LakeXpress is performing better than the previously set \$16.00 standard, but the FY 2006 peer system average is lower than the previous TDP average of \$8.00. This indicates the peer agencies are able to operate more cost effectively and have either reduced their cost without reducing the quality of service or more passenger trips are occurring without increasing the operating cost per trip. Since LakeXpress did not collect fares until September, it is not surprising that the operating expense per passenger trip is higher than the peer average.

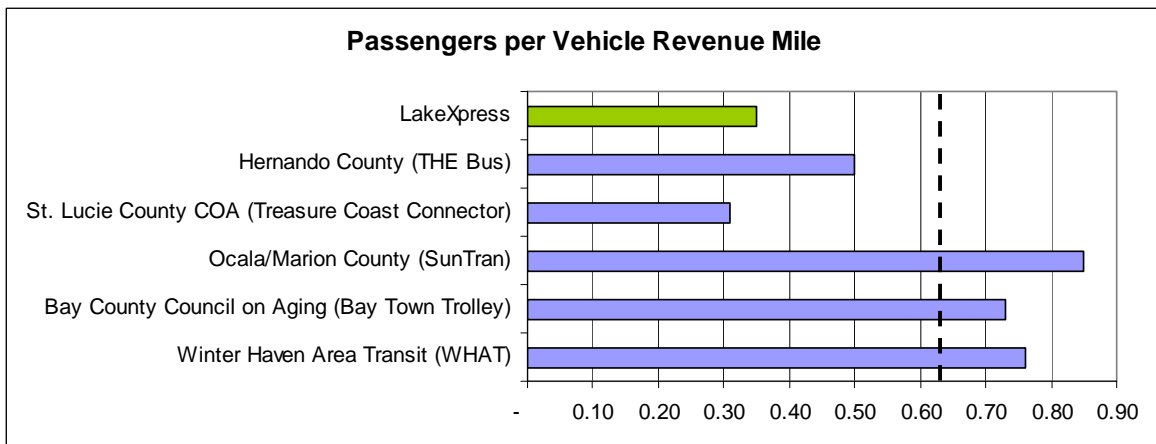
**Figure 7-2 - Operating Expenses per Passenger Comparison**



**Passengers per Vehicle Revenue Mile**

This standard measure relates to the effectiveness of service based on passenger demand versus service supplied. The previous TDP used a reducing scale based on a 0.48 peer average. The recommendation was to set a goal of 0.24 passengers per revenue mile in the First Year and 0.36 passengers per revenue mile in Year 2. The FY 2006 peer average is 0.63 passengers per vehicle revenue mile (see dashed line on **Figure 7-3**). LakeXpress has carried 0.35 passengers per vehicle revenue mile exceeding its Year 1 goal by almost 50 percent and nearly meeting its Year 2 goal. In comparison to its peers, the LakeXpress passengers per vehicle revenue mile will likely increase as the system matures and with increased marketing. In addition, gas prices will certainly have an effect on ridership and costs, as indicated by recent news stories. SunTran, Winter Haven Area Transit, and Bay Town Trolley are the leaders in ridership per revenue mile for the peer group.

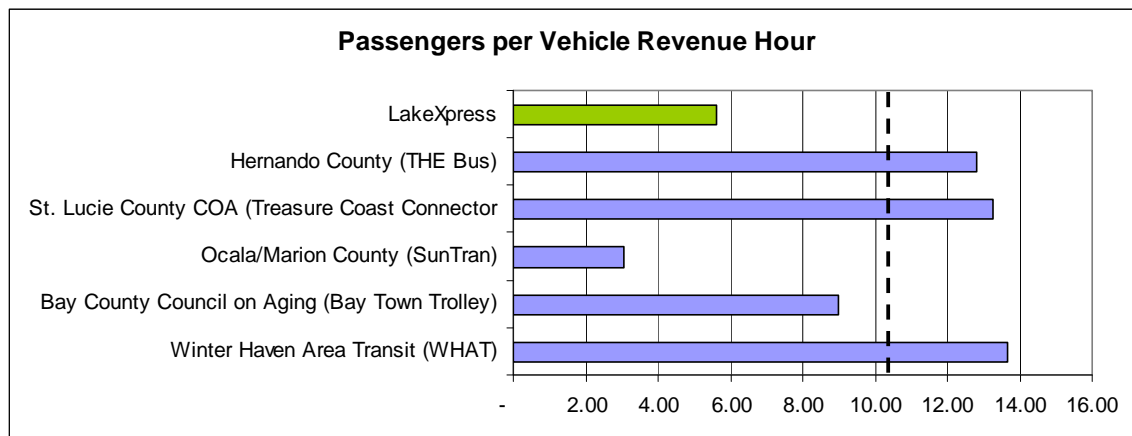
**Figure 7-3 - Passengers per Vehicle Revenue Mile Comparison**



## Passengers per Revenue Hour

The ratio of passengers per revenue hour is one of the most commonly used industry-wide measures of effectiveness. The FY 2002 average passenger per revenue hour for the peer systems was 8.08 and the FY 2006 peer average is 10.36 (shown with a dotted line on **Figure 7-4**). No goal was established previously for this metric; however, LakeXpress currently averages 5.64 passengers per revenue hour, which is higher than SunTran and will likely increase as the system matures and marketing efforts continue to pay off. As noted earlier, increasing gas prices will contribute to ridership as well as costs in the future.

**Figure 7-4 - Passengers per Vehicle Revenue Hour Comparison**



### 7.2.2 Quality of Service

Quality service measures provide valuable input on the customers' perception of the service, as well as the riders' transit experience. As mentioned in the marketing strategy section, on-board surveys provide such insight. On-board surveys ask riders to rate the performance of the service and, as listed in the 2005 TDP, include questions such as:

- Days of Service;
- Hours of Service;
- Frequency of Service;
- Convenience of Routes;
- On-Time Performance;
- Travel Time; and
- Cost of Riding the Bus.



Additional information can be obtained from these surveys, such as destination and origin locations, demographic information, and transfer activity, which can provide a useful database of the transit system's target market. Although the costs can be reduced by coordinating with drivers to distribute and collect surveys, on-board surveys can be expensive. In addition to data collection, entering the data in a concise and useful database format is also required. As Lake County's transit service matures, new information from data collection efforts will be a beneficial tool for future marketing strategies and performance measures. This will ensure that LakeXpress will continue to provide efficient and effective transit service to Lake County residents.

## **Section 8:0      Transit Alternatives Considered**

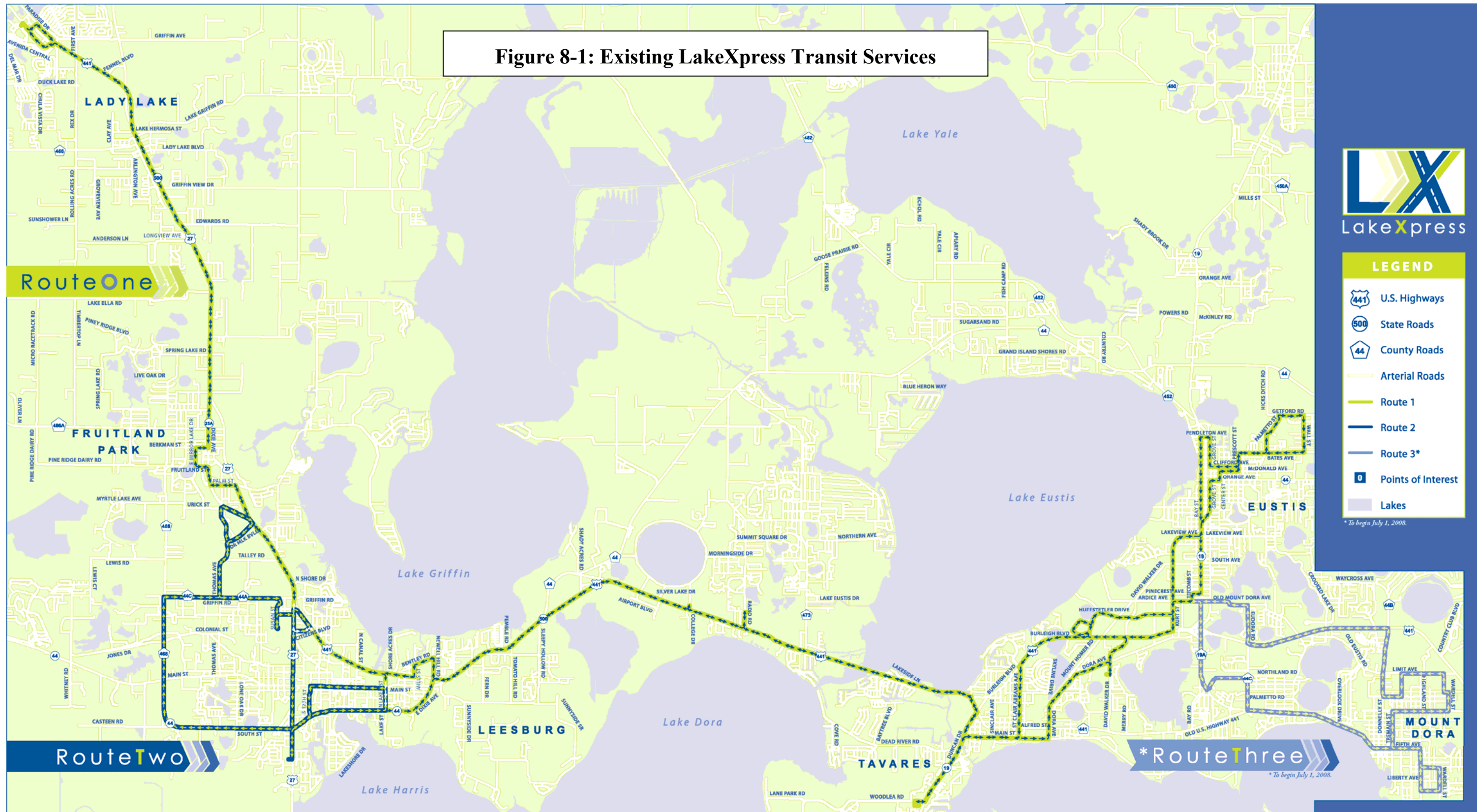
The purpose of this section is to identify regional transit alternatives to guide transit planning through the Year 2020 in the Lake~Sumter MPO planning area. As ever-burgeoning growth has impacted Lake and Sumter counties, a new regional vision has emerged based upon the *How Shall We Grow Study*. This new regional land use and transportation vision looks to a future where the transportation system offers transportation choices to all residents with transit services that are regional - serving and supported by Lake County, Sumter County, and the 19 municipalities located within the study area. The path from here to there will require long-term commitment, community support, and proactive implementation strategies.

The *2020 Transit Needs Assessment* examined the existing conditions, baseline service, and populations in need of public transportation service in Lake County. Evaluation criteria and methods for comparing alternatives are discussed before the various service alternatives are mapped and described. The alternatives have been designed to address identified needs consistent with community goals and objectives.

### ***8.1 Existing Transit Services***

This section summarizes the existing transit services offered in the study area (**Figure 8-1**). A discussion of adjacent transit services is included for the current transit services offered within Lake, Marion, Orange, Sumter, and Volusia counties. The descriptions include areas where there are or could be opportunities to create transfers between transit service providers based upon the identified geographic areas and field observations.

Figure 8-1: Existing LakeXpress Transit Services



## 8.2 LakeXpress

Lake County provides fixed route bus service through LakeXpress, as shown on **Figure 8-1**. LakeXpress is a brokered system provided by M. V. Transportation, under contract to Lake County. Lake County staff in conjunction with the Lake~Sumter MPO, the LakeXpress Task Force, and the Lake County Board of County Commissioners is responsible for planning this service. M. V. Transportation operates the service. Starting in May 2007, two fixed routes began operating in Lake County, Route 1 – the *Cross County Connector* (see the green dashed line on **Figure 8-1**) and Route 2 the *Leesburg Circulator* (see the dark blue dashed line on **Figure 8-1**). Route 3 – the *Mount Dora Circulator* (see the light blue dashed line on **Figure 8-1**) started service in July 2008. A service development grant has been submitted for the fourth route (the “*Zellwood Connector*”) from fixed route service from Altoona to LYNX **Link 44** in Zellwood (see the orange line on **Figure 8-2**). This new service is scheduled to start in July 2009 with a planned completion in June 2011. Each of these four routes was recommended in the *2005 Lake County Transit Development Plan* and being implemented.

**Figure 8-2: LYNX Route #44**



This new route will provide service along the U.S. 441 corridor between the cities of Altoona and Zellwood providing transportation alternatives for the rural, urban and special needs citizens of Lake, Sumter, and Orange counties. Route 4 will provide weekday service connecting to the northernmost point of the LYNX service area in Zellwood. Route 4 will operate on two-hour headways along a 44-mile route that extends from Altoona to Zellwood. LakeXpress passengers traveling from Lady Lake, Fruitland Park, Leesburg, Tavares, Eustis, and Mt Dora would be able to transfer from LakeXpress to the LYNX fixed route system that serves Orange, Osceola, and

Seminole counties. This new service will be available Monday through Friday from approximately 7:00 AM to 7:00 PM with two-hour headways. Route 4 will also provide much needed service to the new Health Department in Eustis. Paratransit service was reduced recently due to funding constraints. This new fixed route service will provide transportation alternatives for many individuals that were denied paratransit transportation as a result of the paratransit reductions.

Ridership data is shown in **Table 8-1** for Routes 1 and 2 from May 2007 through May 2008 but fares were not collected until August 2007. As with most systems, the fiscal year begins in October. Therefore, partial year data is available from May 2007 to September 2007, and October 2007 to May 2008. To compare an entire year of data for the purpose of this analysis, data from June 2007 to May 2008 was used determine LakeXpress performance results. The National Transit Database (NTD) provides the validated source data for a peer analysis, with the most recent year available being FY 2006. It is important to note that these differing time frames do not allow a direct comparison, particularly since outside factors such as rising gas prices have likely affected the recent operating expenses as well as ridership for all of the peer transit agencies in this analysis. Additionally, LakeXpress did not collect fares during the first three months of operation; therefore, the data may be skewed.

**Table 8-1: LakeXpress Ridership (2007-2008)**

<b>Month</b>	<b>Route 1</b>	<b>Route 2</b>	<b>Total</b>
May	1,188	204	1,392
June	5,338	1,923	7,261
July	8,003	2,910	10,913
August	7,253	2,722	9,975
September	3,369	1,181	4,550
October	4,958	1,759	6,717
November	5,575	1,974	7,549
December	5,352	1,932	7,284
January	5,694	1,925	7,619
February	5,286	1,964	7,608
March	5,799	1,858	7,657
April	6,263	2,397	8,660
May	6,366	2,375	8,741

*Source: Lake County Public Transportation Manual Passenger Counts, May 2008.*

### 8.2.1 Lake County Connection

Paratransit service in Lake County is provided under the Transportation Disadvantaged program as *Lake County Connection*. The Lake County Board of County Commissioners serves as the **Community Transportation Coordinator** for *Lake County Connection* and service is provided through a private entity, MV Transportation. It should be noted that both *LakeXpress* and *Lake County Connection* are managed by the Lake County Public Transportation Division.

*Lake County Connection* services are provided to those individuals who qualify under guidelines identified in the Florida State Statutes 472. Trips on this service are provided on a first-come, first-serve basis and must be reserved 48 hours in advance for prioritization based upon the following criteria: (1) critical care; (2) other medical needs; (3) employment; (4) education; and (5) other factors. An inventory of other Lake County transportation service providers is included in **Appendix L**. An express route from Paisley to DeLand in Volusia County is also offered once a week connecting to VOTRAN, Volusia County's transit service provider.

### 8.2.2 LYNX

There are three routes of particular interest to the residents of Lake County (see **Figure 8-3**). As noted earlier, **Link 44** extends the farthest north and west within the LYNX service area to Zellwood. The proposed LakeXpress Route #4 will connect with **Link 44** in Zellwood. In early 2005, LYNX submitted two FDOT service development grant applications with assistance and support from the Lake~Sumter MPO. The FDOT applications were approved for two routes into Lake County that are operated by LYNX. Lake County currently contracts with LYNX to provide the Clermont Express (**Link 204**) to downtown Orlando, and the extension of **Link 55** into Lake County via U.S. 192 from Osceola County. The Clermont Express (**Link 204**) offers passengers a hassle-free commute to downtown Orlando via the Florida Turnpike, SR 50 and SR 408 (East-West Expressway). The service is direct from the park-and-ride on U.S. 27 to LYNX Central Station, where riders can connect to a variety of LYNX routes that serve Orange, Osceola, and Seminole counties.

### 8.2.3 Sumter County Transit

Sumter County Transit provides both paratransit and deviated fixed-route service Monday through Friday in Sumter County, with extensions into Lake County. The deviated fixed-route service consists of four routes (Red, White, Blue, and Green) operated from 7:00 a.m. until 4:00 p.m. The Green Route extends into Lake County in the Lady Lake area from The Villages.

**LYNX EXISTING  
TRANSIT SERVICES**

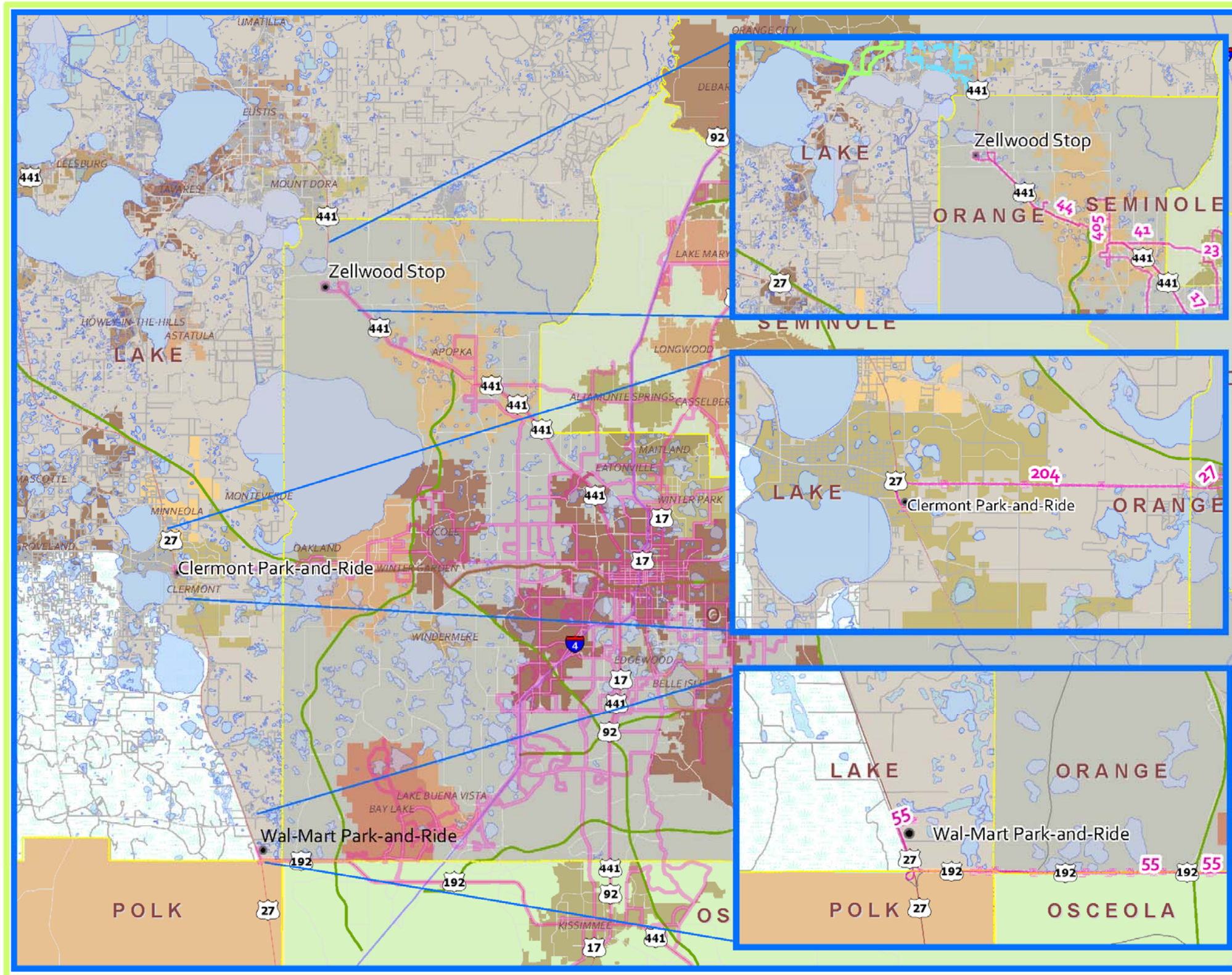


**Legend:**

**LYNX Existing Transit Services**

-  County Boundaries
-  LYNX Fixed Route Service
-  Interstate
-  Toll Roads
-  US Highways
-  Water Bodies

**Figure 8-3: LYNX Existing  
Transit Services  
(Links affecting Lake County)**



## 8.2.4 SunTran

SunTran is the transit agency for Marion County and is operated through a cooperative effort of the Ocala/Marion County Transportation Planning Organization (TPO), Marion County, and the City of Ocala. It operates six fixed-routes, Monday through Saturday; primarily from 6:00 a.m. to 7:00 p.m. SunTran contracts its paratransit services to Marion Transit Services which operates Monday through Friday. Trips are scheduled based on priority as well. The Ocala/Marion TPO recently completed a major update to the County's *Transit Development Plan*. As part of the update process, an assessment of transit demand and needs has identified a number of potential new routes within the county. Public transportation alternatives recommended for funding as part of the most recent *Marion County Transit Development Plan* focused on the urbanized areas. One "intercity" connector was considered that would extend to The Villages so that SunTran service could connect the LakeXpress and Sumter County transit services. This route was not carried forward in the *Marion County Transit Development Plan*.

## 8.2.5 Adjacent Public Transportation Coordination Opportunities

As Lake and Sumter counties continue to grow, more opportunities to connect to adjacent public transportation systems will arise. Lake County has already forged a partnership with LYNX regarding service connections in Zellwood, Clermont, and Four Corners as shown on **Figure 8-3**. An FDOT service development grant was submitted for the LakeXpress Zellwood Connector (Route 4). If approved, Route 4 would connect Lake County residents to the northern portions of the LYNX service area. LYNX Routes 204 and 55 extend into south Lake County in the Clermont and Four Corners areas. Route 204 is an express service operating from the Clermont park-and-ride to LYNX Central Station. Route 55 extends from the Wal-Mart park-and-ride on US 27 (see **Figure 8-3**) to US 192 corridor with its numerous retail, restaurant, and entertainment uses. Sumter County Transit operates the Green Route from The Villages in Lake County to the LakeXpress stop at the Spanish Springs Transportation Center (see picture). Marion County did not carry forward the intercity connector from Ocala to





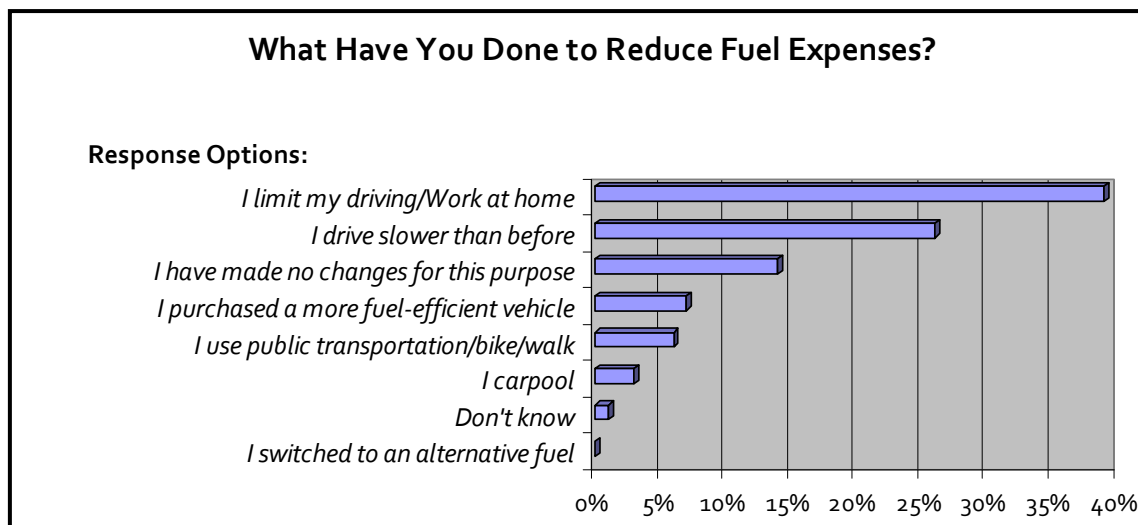
Lady Lake that was examined in their transit development plan. In the future, there may be additional opportunities to connect to transit in Volusia (VOTRAN), Seminole (LYNX), Polk (PCT/WHAT), and Marion (SunTran) counties.

### 8.2.6 Future Travel Patterns

This section discusses future travel patterns and factors affecting transportation choices in Lake and Sumter counties. Fuel prices, highway capacity, commuting patterns, and policies limiting roadway widening all impact future travel patterns as well as potential transit alternatives.

As development continues, roadway congestion will increase and impede travel times. This is evidenced by the use of toll facilities such as SR 408, SR 429, and Florida’s Turnpike for daily trips. In addition, the Orlando-Orange County Expressway Authority has just completed a study of the SR 429 connector which would extend west from the western terminus of SR 429 to US 27 along Hartwood-Marsh Road. Meanwhile, fuel prices have increased from a three-year low of \$2.00 per gallon (2005) to \$4.00 per gallon (2008). Fuel prices are expected to continue to increase. As a result, drivers are modifying their travel behavior to control their own fuel expenses by driving slower; driving less; driving a more fuel efficient car, driving with others, and choosing other modes of travel (see **Figure 8-4**).<sup>i</sup>

**Figure 8-4 – Changing Travel Behavior**

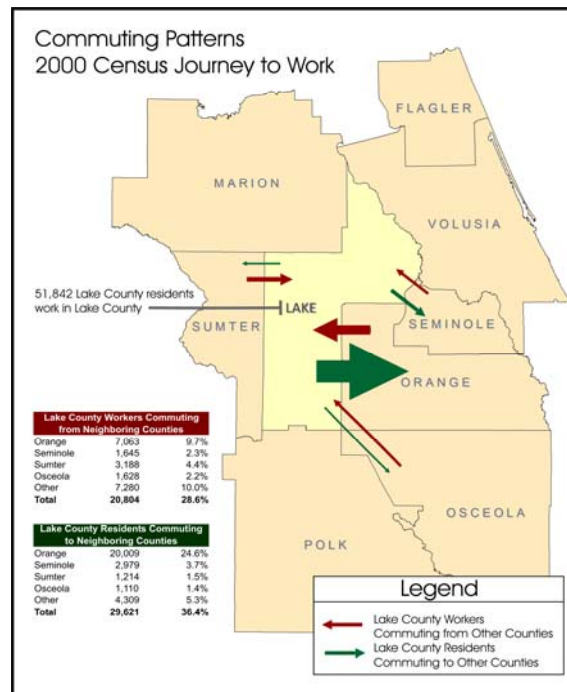


Source: [www.floridagasprices.com](http://www.floridagasprices.com), May 2008.

With Floridians making these types of lifestyle changes in response to fuel prices, we can expect several future trends that will include: (1) telecommuting; (2) working closer to home; (3) making fewer trips; (4) combining multiple trips; (5) using toll roads less to save money; and (6) using transit more often. The Florida Department of Transportation (FDOT) has used population and employment data for the years 2006, 2025, and 2050 to estimate existing and future travel demand in District 5 and determined that demand will exceed capacity on most major facilities by the 2050 horizon year used for the *How Shall We Grow Visioning Study*.

The *FDOT Highway Capacity Analysis* identified segments of US 19, US 27, US 192, and SR 50 in Lake and Sumter Counties that are already experiencing traffic congestion (2006). The most congested segments during the peak hour provide commuter access to adjacent counties reflecting that many commuters originate in Lake County and work in adjacent communities. Currently, most of these commuters are traveling to Orange County. According to the 2006 American Community Survey, 80 percent of Lake County commuters drove to work alone in 2006 and 13 percent carpooled. The average trip time for commuters to get to work was 27.4 minutes. According to the 2000 Census, 36.4 percent of Lake County residents travel to other counties for work. 28.6 percent of Lake County workers commute from other counties into Lake County. **Figure 8-5** shows the 2000 Census Commuting Patterns for Lake County.

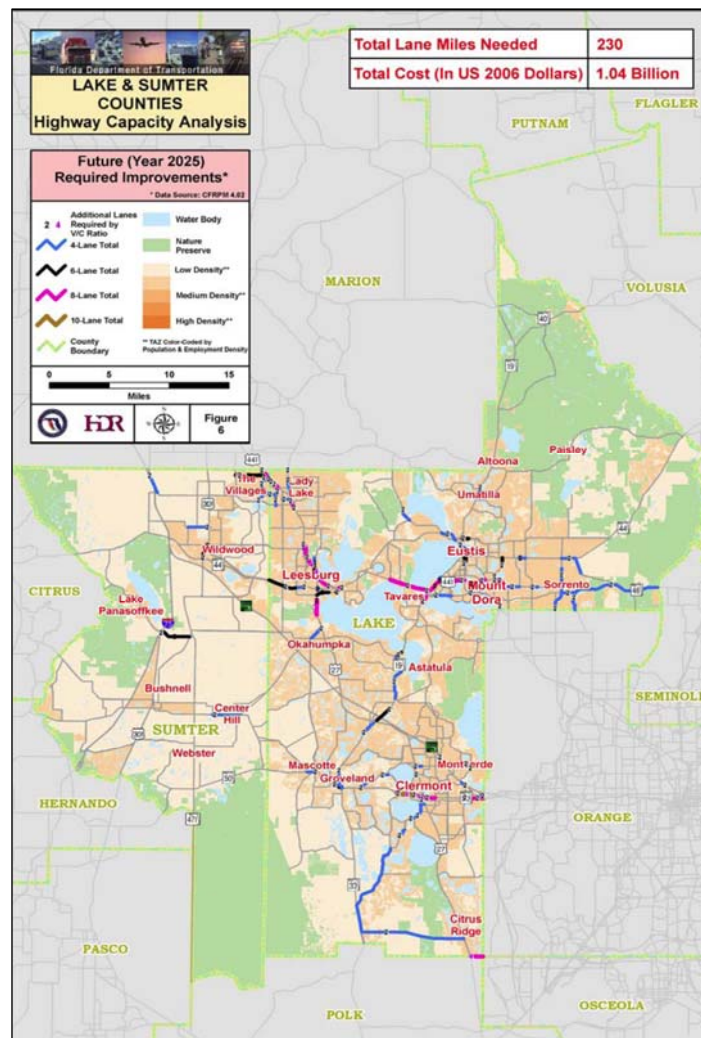
**Figure 8-5 – Journey to Work**



Source: U.S. Census 2000

FDOT has estimated that 230 new lane miles will be required by 2030 in Lake and Sumter counties at a cost of more than a billion dollars. Based upon these two studies, the community is looking for ways to provide transportation choices for all citizens apart from the car which has been the primary way people get to work, healthcare, schools, and stores since World War II.

**Figure 8-6 – Lake and Sumter County 2025 Highway Capacity Analysis**



To solidify the community’s new vision and commitment to change, the *Lake~Sumter MPO Roadway Constraint Policy* was adopted to establish a limit on future roadway widening to enhance the quality of life. Instead of more roads, future travel demand will be met by providing a variety of transportation choices for residents that will include transit, walking, bicycling, and

carpools in addition to the choice to drive alone. This approach to transportation is referred to as “multimodal” and it acknowledges that we cannot afford to build our way out of congestion. As noted in the *How Shall We Grow* study, our citizens feel that more and wider roads make our communities less enjoyable, our commutes more stressful, and eliminate beautiful and essential environmental features. As such, we hope to change that the community’s reliance upon cars the next few years by expanding LakeXpress - the county-sponsored bus system.

### ***8.3 Effects of Organizational Issues***

There are several organizational issues that effect public transportation services in Lake County that have been discussed. First, Lake County is not widely recognized as the agency funding transit. In part, this may be related to the fact that LakeXpress fixed-route services have been operated for a little more than a year. The relatively new fixed-route services are new to area residents and elected officials alike. Second, Lake County provides both fixed-route bus service and paratransit services. These two services are offered with different names – “LakeXpress” and “Lake County Connection.” The LakeXpress and Lake County Connection services are funded and operated by Lake County through a contract with M.V. Transportation. Further adding to the confusion, the express bus service between the Clermont Park-and-Ride and Downtown Orlando is called the “South Lake Express” and is operated as Link 204 by LYNX. For elected officials and the general public, the various names can be confusing. As such, it is recommended that additional efforts be pursued to identify Lake County as the transit provider and that a uniform brand be identified for both fixed-route and paratransit services. This approach would reduce confusion and create better understanding on the part of riders. A simple on-board bus card marketing strategy supplemented by flyers could be developed to improve the identity of LakeXpress as *the public transportation provider*. The marketing strategy should emphasize the schedules, coordinated planning efforts, and opportunities for Lake County Connection patrons to try LakeXpress for some of their trips. Lake County Connection patrons could be offered rider training and assistance with schedules and locating accessible stops.

Both inside and outside Lake County, the single largest organizational issue is funding. As the LakeXpress service area exceeds 200,000 in population, opportunities for operational funds will be reduced significantly. Accordingly, Lake County will need to meet with funding partners on a regular basis to identify opportunities to apply for state and federal grants. Partners may include private developers with projects that cannot demonstrate transportation concurrency. Since the adoption of Senate Bill 360 and subsequent modifications to concurrency managements laws, the number of projects unable to demonstrate that an acceptable level of transportation service will decline dramatically. In Florida, there has been a 44 percent decline in residential building

permits, as reported by *Better Roads*.<sup>1</sup> The reduction in housing permits will also lead to significant reductions in local impact fees generated as well as other local revenue sources such as telecommunications taxes, utility fees, utility taxes, and ad valorem revenue. There has been a simultaneous four percent decline in vehicle miles travelled reported by the media as a result of gas prices<sup>2</sup>; the reduction will lead to declines in the gas tax revenues. *Better Roads* reports that gas taxes fund 90 percent of federal transportation projects and anticipates that, while federal funding only comprises 45 percent of all transportation infrastructure revenues, spending reductions will follow suit at the state and local levels.<sup>3</sup> In fact, the *National Surface Transportation Policy and Revenue Commission* estimates that \$225 billion will be needed annually from federal, state, and local funding sources during the next 50 years.<sup>4</sup> The *National Cooperative Highway Research Program* estimates that there is a \$50 billion gap in all funding for roads and transit per year from 2007 through 2017 to maintain the current system and a \$100 billion gap to improve the system.<sup>5</sup> The recommended solution is increasing gas taxes by 10-cents a gallon to 40-cents per gallon, depending upon your advisor.<sup>6</sup> For Lake County, this trend suggests that investing in transit will be increasingly necessary and competitive. Existing trends already show that increasing gas prices lead to increased transit ridership. Revenue shortfalls at all levels of government will simultaneously increase the competition for scarce revenue sources. Local government partners will be concerned about meeting their statutory and fiscal obligations. Meanwhile, decreasing gas taxes will reduce the number of grants funded by the FDOT and FTA which, in turn, will increase the competition for public transportation grants. These external factors cannot be ignored but they do indicate that investing in transit would serve increasing numbers of Lake County residents over the planning horizon. The transportation network will become increasingly linked to quality of life and economic development.

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<sup>1</sup> **Outlook: Home Sales and Building Permits by State,** *Better Roads*, July 2008, page 9.

<sup>2</sup> <http://www.ibtimes.com/articles/20080818/lehman-analyst-high-gas-prices-help-progressive.htm> Lehman Analyst, Jay Gelb, noted that the decline in vehicle miles traveled on all U.S. public roads accelerated in June 2008 to a decline of 4.7 percent compared with a drop of 3.7 percent in May and a 1.8 percent decline in April, according to the *U.S. Federal Highway Administration's Traffic Volume Trends* report.

<sup>3</sup> **The Next Highway System: Can This System Be Saved?** *Better Roads*, July 2008, page 17.

<sup>4</sup> **The Next Highway System: Can This System Be Saved?** *Better Roads*, July 2008, page 20.

<sup>5</sup> **The Next Highway System: Can This System Be Saved?** *Better Roads*, July 2008, page 20.

<sup>6</sup> **The Next Highway System: Can This System Be Saved?** *Better Roads*, July 2008, page 20.

## ***8.4 Effects of Technology***

Technology is increasingly important to the efficient operation of transit systems. The three most significant technological considerations relate to collecting fares, real-time bus information, and operating buses in mixed traffic. Fare collection technology has advanced significantly recently. In Seoul, Korea, Atlanta, Georgia, and many U.S. cities, an automated fare collection system has been developed for transit and it operates much like the popular tap and go credit cards would at a gas station or a credit card sponsored gift card. The passenger purchases a card and loads cash value onto the card. As passengers board the transit vehicles, they swipe or tap the card to pay their transit fare. In most instances, passengers are also asked to tap or swipe the card as they disembark as well. There is an important reason for asking passengers to swipe their cards twice, transit operations data. With a better understanding of where passengers board and disembark vehicles, a transit agency can aggregate data to streamline and improve the efficiency of services. This double-tapping also limits the free transfer timeframe thereby reducing system costs.

The second major group of technological improvements that should be considered in Lake County relate to real-time information on the locations of buses. There are a wide variety of applications. The system is often referred to as an Automated Vehicle Location (AVL) system. A global positioning tracking device would be installed on transit vehicles to help supervisors manage the bus fleet and inform passengers. For example, a bus system with AVL would be able to identify vehicles that are being delayed by traffic or other factors. The supervisor could contact the driver to understand the nature of the delay and, if necessary, dispatch another vehicle to maintain headways or re-route other vehicles to avoid the delay. Many transit systems also use the AVL system to inform passengers so that they have real-arrival time estimates rather than the schedule. As appropriate, a passenger might wait longer in a building near a stop rather than waiting for a bus in the sun. There are many other AVL applications as well.

As congestion increases in Lake County, particularly along US 441 and SR 50, buses operating in mixed traffic may become inefficient. FTA has identified a variety of technologies that when operated together constitute a transit mode referred to as Bus Rapid Transit (BRT). Mixed traffic can lead to buses being delayed at stop lights, in auxiliary lanes, or simply with returning to travel lanes. As such, BRT systems use traffic operations planning to identify locations along a route that may be problematic or cause delays for buses and remedy them. Examples of technology that may be used to improve BRT travel times include: (1) traffic signal priority where a bus is released at intersections before other vehicles; (2) dedicated lanes for bus and emergency vehicle operations; (3) auxiliary lanes for special bus turning movements into and out of stations or stops; and (4) AVL to provide passengers with real-arrival time information.

## 8.5 Future Transit Alternatives Considered

This section identifies a wide range of transit alternatives for expanding LakeXpress service in Lake County and the surrounding area. Future transit alternatives identified in previous Lake County transit studies are summarized briefly as they formed the basis for the range of alternatives. For each set of alternatives, corridor and community needs were identified based on linkages to major population centers, activity centers, employment opportunities, existing neighborhoods and future development, as well as the concentration of “transit dependent population” or persons without access to a car by reason of age, infirmity, and income. Riding transit is increasingly a choice that people make because they want to save money (particularly with rising fuel prices), protect the environment, or to simply reduce stress and these riders are called “choice riders.” The needs of both transit dependent and choice riders will be discussed.

### 8.5.1 Previous Transit Studies and Transit Implementation Progress

This section describes the status of the recommended transit service plan initiatives for Lake County from the 2005 Transit Development Plan by TOA. Four recommendations for new fixed-route transit service were identified in 2005 as preferred alternatives. **Table 8-2** provides an overview of the recommended new services, along with their projected operating characteristics.

**Table 8-2: Recommended New Public Transportation Services**

New Service	Annual Revenue Miles	Annual Operating Costs <sup>1</sup>	Start-Up Capital Cost <sup>2</sup>	Days of Service	Hours of Service	Headway (minutes)
<b>Fixed-Route Service with Deviation</b>						
Route 1 - Lake Square Mall to Leesburg	45,326	\$98,811	\$258,015	Mon. - Fri.	6 am to 7 pm	60
Route 2 - Lake Square Mall to Tavares	50,827	\$110,803	\$250,500	Mon. - Fri.	6 am to 7 pm	60
Route 3 - Leesburg Circulator	38,850	\$84,693	\$250,500	Mon. - Fri.	6 am to 7 pm	60
Route 6 - Leesburg/Fruitland Park/Lady Lake	48,342	\$105,386	\$250,500	Mon. - Fri.	6 am to 7 pm	60

(1) Annual operating costs are presented in 2004 dollars and are based on \$2.18 per revenue mile.

**Table 8-3: Previous Transit Study Recommendations**

Compilation of Previous Transit Study Recommendations			
Existing Service			
Description	Location	Details	Source
Lake County Connection Express	From Paisley to Deland	1 x a week	Regional Bus Circ. Assess. 5/2007
LakeXpress	Villages, Leesburg, Mt Dora	3 routes	Lake County TOP 10/2006
LYNX	Clermont Express (Rt 204) & US 192 (Rt. 55)	Park & Rides to Orlando	Regional Bus Circ. Assess. 5/2007
Sumter County	The Villages	Green Route	Regional Bus Circ. Assess. 5/2007
Previous Recommendations			
Description	Location	Details	Source
Zellwood Connector	Altoona/Mt. Dora to Zellwood via SR 19A/US	Service Development Grant - application ready	Unfunded Priority Projects through FY
Paisley Connection	Paisley to Eustis	Service Development Grant	Unfunded Priority Projects through FY
Disney Connection	Clermont to Walt Disney World	Service Development Grant	Unfunded Priority Projects through FY
Clermont Circulator	Clermont	Service Development Grant	Unfunded Priority Projects through FY
Wildwood Connector	Leesburg to Wildwood	Service Development Grant	Unfunded Priority Projects through FY
Groveland Connector	Clermont to Groveland	Service Development Grant	Unfunded Priority Projects through FY
SR 27 Connection	Leesburg to Clermont	Service Development Grant	Unfunded Priority Projects through FY
Mobility Center		Capital Projects	Unfunded Priority Projects through FY
Corridor 2	US 441 from US 27 (Lady Lake) to CR 44	Potential Fixed-Route Primary Corridor	2005 Lake County TDP
Corridor 3	US 441 from Main St. (Leesburg) to SR 44 (Mt)	Potential Fixed-Route Primary Corridor	2005 Lake County TDP
Corridor 4	SR 19 from US 441 (Mt Dora) to CR 450	Potential Fixed-Route Primary Corridor	Lake County TDP 2/2005
Corridor 6	SR 27 from SR 50 (Clermont) to Main St.	Potential Fixed-Route Primary Corridor	Lake County TDP 2/2005
Corridor 1	CR44 from CR 468 (Leesburg) to SR 19	Potential Fixed-Route Secondary Corridor	Lake County TDP 2/2005
Corridor 5	CR50 from CR 565 (Mascotte) to CR 455	Potential Fixed-Route Secondary Corridor	Lake County TDP 2/2005
SunTran Intercity Connector	Downtown Ocala to the Villages	Intercity Connector - Marion Co. TDP	Regional Bus Circ. Assess. 5/2007
Shuttle	DT Clermont from LYNX P&R	Shuttle service for First Friday Festival	Regional Bus Circ. Assess. 5/2007
LYNX Route 55 Frequency/Service	Clermont to Orlando	Increase frequency and service hours	Regional Bus Circ. Assess. 5/2007
Clermont Express Service	On SR192 and 429 to Disney-Lake Buena		Regional Bus Circ. Assess. 5/2007
Community Circulators	Clermont, Groveland & Mascotte	Would join express service at US 27 P&R	Regional Bus Circ. Assess. 5/2007
Park & Ride	Plaza Collina or Winter Garden Village	to service express service	Regional Bus Circ. Assess. 5/2007
Fixed Route Service	City of Clermont to Four Corners via US 27	Proposed by Clermont Staff as next priority	Regional Bus Circ. Assess. 5/2007
Four Corners Community Circulator	Four corners	Until densities/roadway support more intense	Regional Bus Circ. Assess. 5/2007
Four Corners Limited Stop Express	On Major Corridors	To serve major employers & attractions	Regional Bus Circ. Assess. 5/2007
Community Circulators	Cagan Crossings Community and Clermont		Regional Bus Circ. Assess. 5/2007
Villages - Bus Circulator Service	Villages connecting to LakeXpress	Circulator service that connects to LakeXpress	Regional Bus Circ. Assess. 5/2007
Village Circulator	Old Mill Run Road	Proposed road conducive to transit	Regional Bus Circ. Assess. 5/2007
Villages- Shared Use Trolley Service	Villages Community	Share use of existing real estate trolley during	Regional Bus Circ. Assess. 5/2007
Villages - Golf Cart Park & Ride	Villages Community	Proposed at Villages Golf Cart Bridge or	Regional Bus Circ. Assess. 5/2007
Villages-Connection	Villages to Marion County	Connection to Marion County at the Terrace	Regional Bus Circ. Assess. 5/2007
Mount Dora-Apopka Connector Express	Mount Dora to Orlando	Proposed express service via 441 between	Regional Bus Circ. Assess. 5/2007
Extension of Leesburg Route	Leesburg - 4 Corners	Extension of Leesburg route down 420 to serve	Regional Bus Circ. Assess. 5/2007
Lake Minneola Transit Service	Lake Minneola along Lake South Connector	Recommended that service on this road should	Regional Bus Circ. Assess. 5/2007
Local Route Connecting with LYNX	Hook St. & Hartwood Marsh Road	Recommended that local route on this road to	Regional Bus Circ. Assess. 5/2007
LYNX Rt. 203	Mt. Dora-Apopka CBD	US 441/SR 46 Mount Dora via 441 to Apopka	LYNX COA 3/2006
LYNX Rt. 204	Clermont - Oakland CBD	SR 50/27 Clermont via SR 50 to Oakland and	LYNX COA 3/2006
LYNX Rt. 313	Four Corners to Disney	US 27/192 Wal-Mart to DT Disney	LYNX COA 3/2006
LYNX Rt. 314	Kissimmee Intermodal to Four Corners	US 27/192 Wal-Mart to Kissimmee Intermodal	LYNX COA 3/2006
LYNX Rt. 324	Clermont to West Oaks Mall	SR 50 Clermont to West Oaks Mall Transit	LYNX COA 3/2006
Northridge Connector - Circulator Service	US 27 (north of proposed I-4/ US27 Park and	Circulator service along US 27 north of I-4.	Polk Consolidated TDP 2008-2017 Adopted

Lake County completed the **2006 Transit Operating Plan** to guide the implementation of fixed-route transit services in the County. The transit operations plan included specific service policies, financial planning elements, and bus route scheduling and routing for the new Lake County fixed-route transit service. Since then, the Lake County Public Transportation Division has implemented three new LakeXpress fixed-route bus services: (Route 1) Cross County Connector; (Route 2) Leesburg Circulator; and (Route 3) Mount Dora Circulator.

The proposed routes identified in the previous TDP have been implemented and are listed in

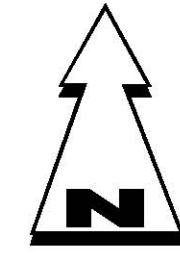


**Table 8-3** and shown on **Figure 8-7**. In addition to the new LakeXpress routes listed above, Lake County is continuing to meet the transportation disadvantaged needs and offer ADA complementary paratransit services through a contract with M.V. Transportation as “Lake County Connection.”



As new fixed-route service has become available, the goal has been to reduce the demand for door-to-door trips by providing the fixed-route bus service. The County is working to convert door-to-door trips to fixed-route service trips through education and coordination with patrons to benefit individual riders and reduce costs. Cost savings and transportation system improvements have resulted from this transition. Success is due in part to having one contractor providing both paratransit and fixed-route service. Since the last TDP, Lake County has been able to implement the recommendations identified in *2006 Transit Development Plan*, the *Transit Operating Plan*, and the *Transportation Disadvantaged Service Plan*, as summarized in **Appendix G**.

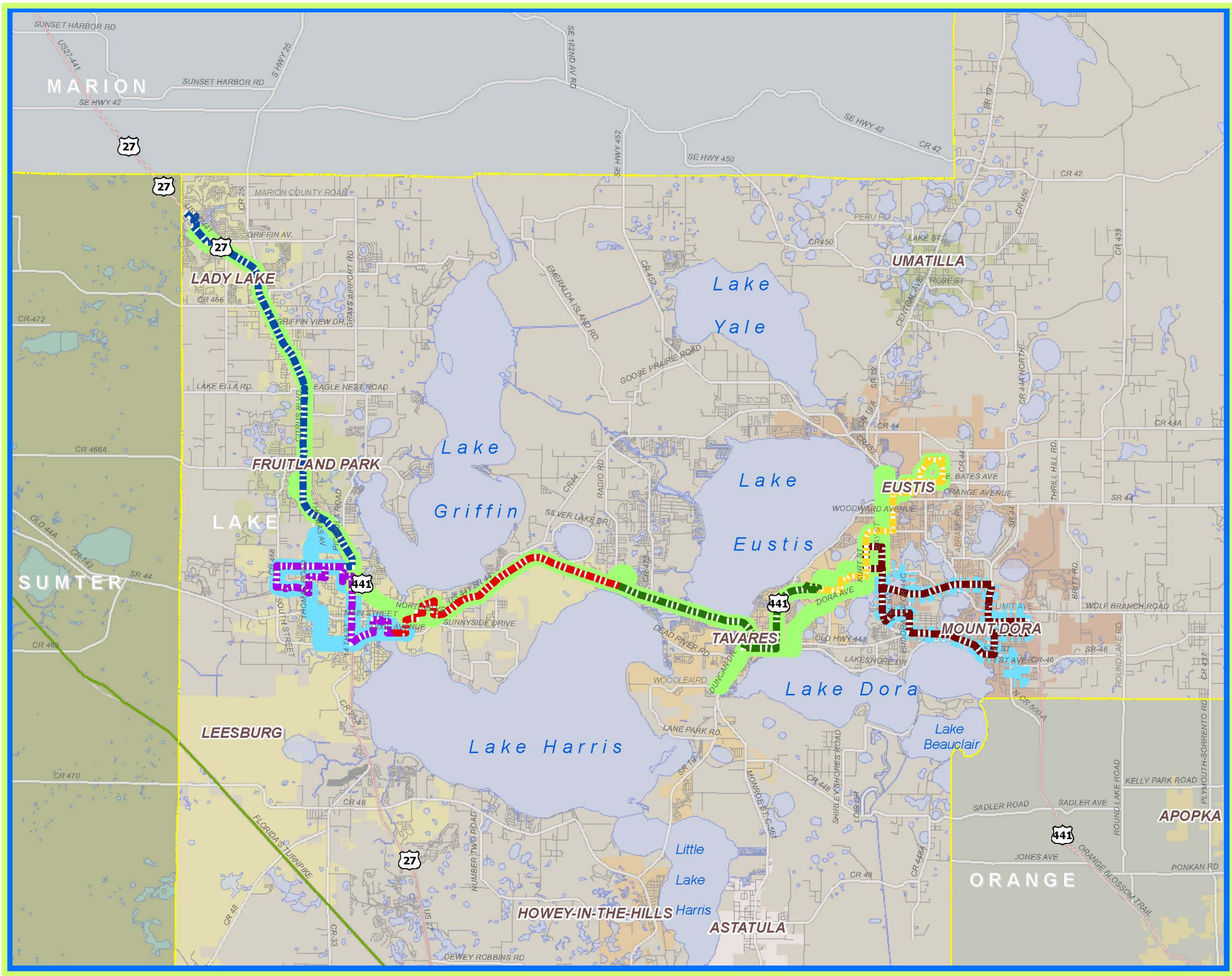
# LAKE XPRESS PREVIOUS TRANSIT RECOMMENDATIONS



**Legend:**

LakeXpress Existing Service Routes  
Compared to Previous Recommendations

- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6
- LakeXpress Cross-County Connector
- LakeXpress Leesburg Circulator
- LakeXpress Mount Dora (Starting 7/1/08)
- County Boundaries
- Interstate
- Toll Roads
- US Highways
- Regional Network
- Local Streets



**Figure 8.7: Progress Since  
Last TDP**

Lake County has continued to manage and update its fleet based upon needs and available funding. As shown in **Table 8-4**, a fleet of vehicles has been acquired for LakeXpress and Lake County Connection. Both fixed-route bus service and paratransit services are provided through a contract with M.V. Transportation.

**Table 8-4 - Lake County Public Transportation Division Fleet**

FDOT ID	Year of Vehicle	Age (Years)	Service	Vehicle Type	Manufacturer	Model	Seating Capacity	Standing Capacity	Fuel Type	Cost	Federal Percentage	State Percentage	Local Match	Grant Number	Condition
185848	1996	12	Paratransit	Bus	Ford	E450	26	0	Diesel	\$ 48,000.00	Unknown	Unknown	Unknown	Unknown	Poor
BCC	1996	12	Paratransit	Bus	Ford	E450	15	0	Unleaded	\$ 9,500.00	0%	0%	100%	N/A	Poor
185859	1998	10	Paratransit	Bus	Ford	E450	25	0	Diesel	\$ 48,951.00	Unknown	Unknown	Unknown	Unknown	Poor
185861	1998	10	Paratransit	Bus	Ford	E450	15	0	Diesel	\$ 44,182.00	Unknown	Unknown	Unknown	Unknown	Poor
185864	1998	10	Paratransit	Bus	Ford	E450	19	0	Diesel	\$ 44,182.00	Unknown	Unknown	Unknown	Unknown	Poor
185865	1998	10	Paratransit	Bus	Ford	E450	19	0	Diesel	\$ 44,182.00	Unknown	Unknown	Unknown	Unknown	Poor
185860	1998	10	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 44,182.00	Unknown	Unknown	Unknown	Unknown	Poor
185863	1998	10	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 44,182.00	Unknown	Unknown	Unknown	Unknown	Poor
92550	1999	9	Paratransit	Bus	Ford	E450	19	0	Diesel	\$ 45,397.00	Unknown	Unknown	Unknown	Unknown	Poor
92553	1999	9	Paratransit	Bus	Ford	E450	15	0	Diesel	\$ 45,397.00	Unknown	Unknown	Unknown	Unknown	Poor
92549	1999	9	Paratransit	Van	Ford	E450	25	0	Diesel	\$ 45,397.00	Unknown	Unknown	Unknown	Unknown	Poor
92551	1999	9	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 45,397.00	Unknown	Unknown	Unknown	Unknown	Poor
92552	1999	9	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 45,397.00	Unknown	Unknown	Unknown	Unknown	Poor
92554	1999	9	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 45,397.00	Unknown	Unknown	Unknown	Unknown	Poor
93520	2003	5	Paratransit	Bus	Ford	E350	13	0	Unleaded	\$ 40,429.80	80%	10%	10%	AL863	Good
93519	2003	5	Paratransit	Bus	Ford	E350	13	0	Unleaded	\$ 40,429.80	80%	10%	10%	AL863	Good
CTD-1	2003	5	Paratransit	Bus	Ford	E450	15	0	Unleaded	\$ 50,910.00	80%	10%	10%	AM166	Good
93518	2003	6	Paratransit	Mini Bus	Ford	E450	15	0	Diesel	\$ 53,907.00	80%	10%	10%	AL863	Fair
93525	2003	5	Paratransit	Mini Bus	Ford	E450	15	0	Diesel	\$ 54,178.20	80%	10%	10%	AL863	Good
93524	2003	5	Paratransit	Mini Bus	Ford	E450	15	0	Diesel	\$ 54,178.20	80%	10%	10%	AL863	Good
93523	2003	5	Paratransit	Mini Bus	Ford	E450	15	0	Diesel	\$ 54,178.20	80%	10%	10%	AL863	Good
90502	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00	80%	10%	10%	AL863	Excellent
90503	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00	80%	10%	10%	AL863	Excellent
90504	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00	80%	10%	10%	AL863	Excellent
90505	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00	80%	10%	10%	AL863	Excellent
90506	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00	80%	10%	10%	AL863	Excellent
90507	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,425.00	80%	10%	10%	AL863	Excellent
90508	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,425.00	80%	10%	10%	AL863	Excellent
90509	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,425.00	80%	10%	10%	AL863	Excellent
90510	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00	80%	10%	10%	AL863	Excellent
CTD-2	2005	4	Paratransit	Bus	Ford	E450	15	0	Diesel	\$ 62,538.00	80%	10%	10%	AN934	Good
93574	2005	3	Paratransit	Bus	Ford	E350	12	0	Diesel	\$ 51,878.00	80%	10%	10%	AL863	Excellent
93575	2005	3	Paratransit	Bus	Ford	E350	12	0	Unleaded	\$ 44,774.00	80%	10%	10%	AL863	Excellent
93580	2005	3	Paratransit	Bus	Ford	E350	12	0	Unleaded	\$ 44,774.00	80%	10%	10%	AL863	Excellent
93581	2005	3	Paratransit	Bus	Ford	E450	15	0	Unleaded	\$ 49,859.00	80%	10%	10%	AL863	Excellent
93582	2005	3	Paratransit	Bus	Ford	E450	15	0	Unleaded	\$ 49,859.00	80%	10%	10%	AL863	Excellent
90514	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00	80%	10%	10%	AL863	Excellent
90515	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00	80%	10%	10%	AL863	Excellent
90516	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00	80%	10%	10%	AL863	Excellent
90517	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00	80%	10%	10%	AL863	Excellent
90518	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00	80%	10%	10%	AL863	Excellent
90513	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00	80%	10%	10%	AL863	Excellent
FTA-1	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00	80%	10%	10%	FL-90-X900	Excellent
FTA-2	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00	80%	10%	10%	FL-90-X900	Excellent
FTA-3	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00	80%	10%	10%	FL-90-X900	Excellent
FTA-4	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00	80%	10%	10%	FL-90-X900	Excellent
FTA-5	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00	80%	10%	10%	FL-90-X900	Excellent
90539	2006	2	Paratransit	Bus	Chevrolet	3500	9	0	Unleaded	\$ 50,990.00	80%	10%	10%	AL863	Excellent
CTD-3	2006	2	Paratransit	Bus	Ford	E450	18	0	Unleaded	\$ 54,260.00	80%	10%	10%	ANN01	Excellent
90564	2006	2	Fixed Route	Bus	International	VT365	24	16	Diesel	\$ 137,565.00	80%	10%	10%	AL863	Excellent
CTD-4	2007	1	Paratransit	Bus	Chevrolet	E4500	15	0	Diesel	\$ 70,438.00	80%	10%	10%	AO341	Excellent
90561	2007	1	Fixed Route	Bus	Chevrolet	3500	19	0	Diesel	\$ 75,438.00	80%	10%	10%	AL863	Excellent
CTD-5	2007	1	Paratransit	Bus	Chevrolet	E4500	15	0	Diesel	\$ 73,380.00	80%	10%	10%	AOG64	Excellent
90572	2007	1	Paratransit	Bus	Chevrolet	C4500	15	0	Diesel	\$ 72,678.00	80%	10%	10%	AL863	Excellent
90573	2007	1	Paratransit	Bus	Chevrolet	C4500	15	0	Diesel	\$ 72,678.00	80%	10%	10%	AL863	Excellent
90571	2007	1	Paratransit	Bus	Chevrolet	C4500	15	0	Diesel	\$ 72,678.00	80%	10%	10%	AL863	Excellent

Unknown = Vehicles were transferred to Lake County Board of County Commissioners from previous CTC (Lifestream) without documentation; therefore, certain information is not available, such as cost, match, and grant numbers.

## **8.6 Range of Alternatives**

A range of alternatives has been identified for Lake County and they designed to facilitate the development of a comprehensive mobility strategy over a ten-year horizon. These alternatives emanate from the public involvement efforts, technical analyses, and the Lake County Public Transportation goals. The range of alternatives is listed in Table 8-5 and shown on Figure 8-8.

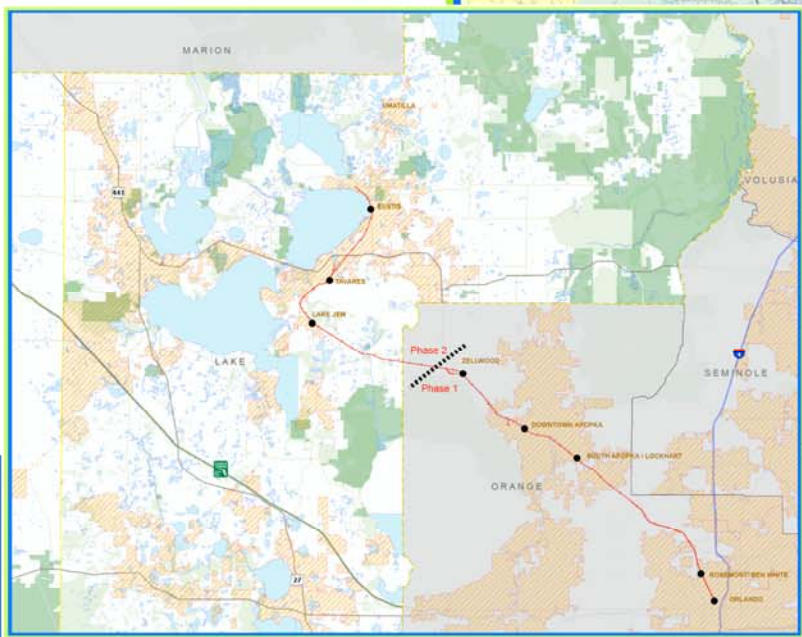
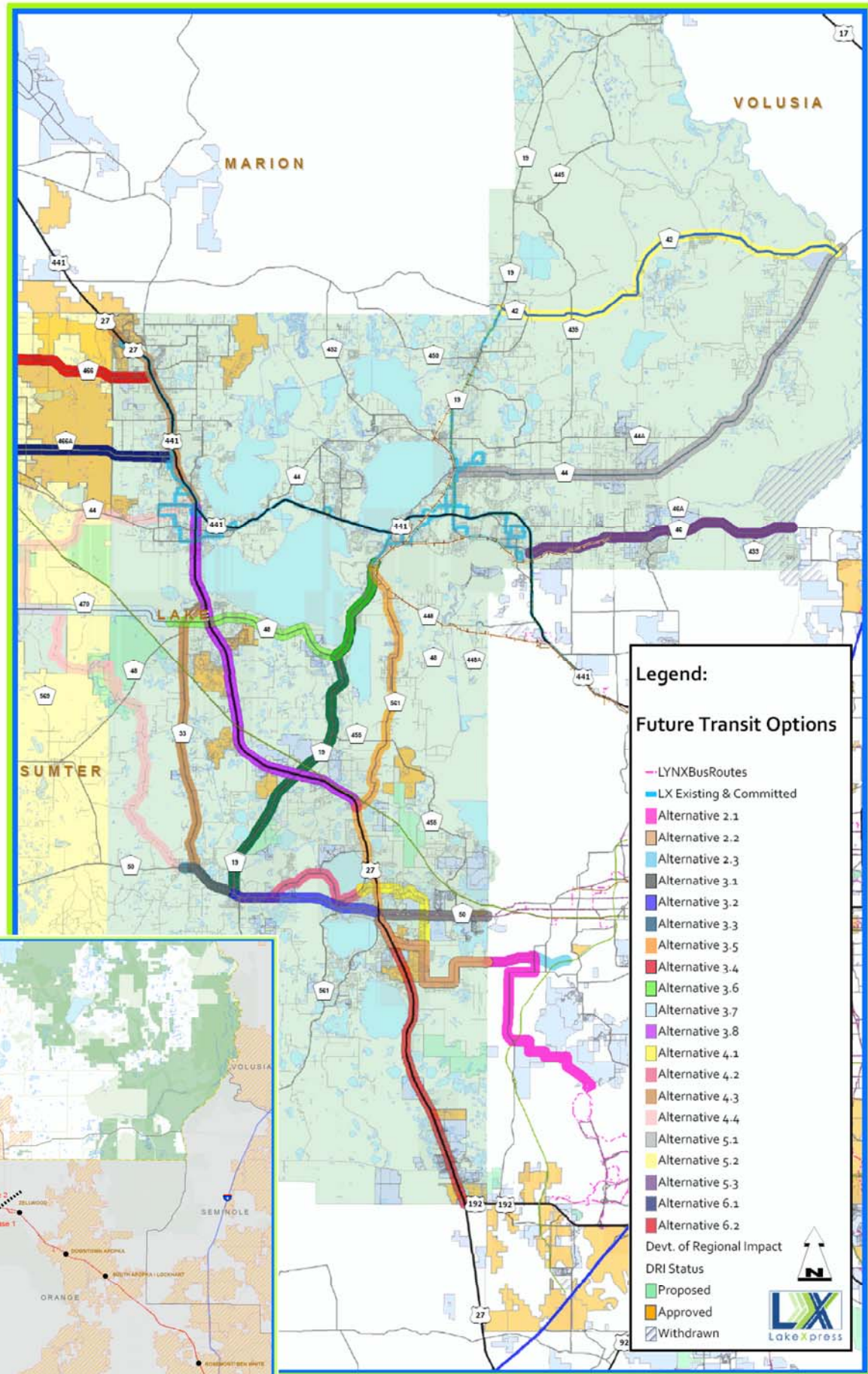
The principle concept guiding the development of transit in Lake County is that additional transit service should provide for the future service needs of Lake County residents and visitors in a safe, efficient, cost effective, and accessible manner. This includes meeting the needs of the transportation disadvantaged due to health, disability, or level of income. Proposed transit service planning efforts should be coordinated with affected local governments and organizations to ensure that the financially feasible mobility needs of the transportation disadvantaged population in Lake County are identified and met. Each alternative study corridor has been evaluated above in terms of socioeconomic characteristics, development patterns, proposed land use changes, travel demand, and travel patterns.

A range of 48 public transportation improvement alternatives have been identified for the Lake County service area, including premium transit options. Premium transit options include bus rapid transit along the SR 50 corridor, light rail transit along the SR 50 corridor, and commuter rail along the Florida Central Railroad extending from Downtown Orlando to Zellwood, Tavares, and Eustis. The first four alternatives are simply to continue to provide the four LakeXpress routes already pursued through FDOT service development grants. The reason for including these four routes as the first four alternatives is because the FDOT grants will expire and future funding for these service routes will need to be identified. Additionally, 16 alternatives have been identified to improve the headways (time between buses arriving at a stop), extending service hours to start one-hour earlier and end one hour later, and adding service on Saturdays and Sundays. The remaining 20 service options are new fixed route service alignments covering new portions of the service area to connect to specific employment opportunities, health and community services, residential areas, shopping, and recreational opportunities.

The 2020 major update of the Lake County Transit Development Plan covers the ten-year planning horizon beginning in FY 2009 (starting October 1, 2008). The plan addresses the requirements of, and is consistent with, applicable FDOT regulations, all requirements of Florida Administrative Code Section 14-73.001 (revised and published in December 2005), and all requirements of Florida Statute 341.052. FDOT requires a Transit Development Plan to maintain eligibility for state Public Transit Block Grant funding, a key part of Lake County Public Transportation Division's annual operating budget.

Figure 8-8 - Alternatives Considered

# Identified Future Transit Options



For additional information, please visit the Lake-Sumter Metropolitan Planning Organization at <http://www.lakesumtermplanning.org>. You may also contact Mike Woods at 352-315-0170 x251 or via E-mail at [MWoods@LakeSumterMPO.com](mailto:MWoods@LakeSumterMPO.com).

## 2020 Transit Development Plan

## 8.6.1 East-West Connections along SR 50 – Mascotte, Groveland, Clermont

The range of various transit service alternatives identified in the State Road 50 corridor are highlighted in **Table 8-5** and shown on **Figure 8-8**. These transit alternatives would not all be recommended for implementation simultaneously. As can be seen on the map, the fixed-route bus service, bus rapid transit, and light rail would all occur in the same segments. The rationale for these options along State Road 50 reflects the current strategies recommended by the Federal Transit Administration (FTA) for emerging corridors. FTA suggests that communities seeking premium transit service should develop ridership in a corridor through gradually enhanced transit services building additional ridership at each implementation stage. The SR 50 Express Routes reflect the desire of existing *South Lake Express* patrons for more frequent service on LYNX Route 204. The community has expressed a desire for an extension of existing services to the west represented by *Segments 3.2* and *3.3*. The other alternative considers the advantages of using local roads to bypass the most congested segments of SR 50 while offering Clermont, Minneola, Groveland, and Mascotte residents' service closer to their homes.

**Table 8-5 – SR 50 Corridor Transit Alternatives**

Alternatives	Brief Description	Map Color	Round-Trip (Miles)	Stops
<b>Fixed Route Bus Service Alternatives</b>				
<b>SR 50 Alternatives</b>				
3.1 - SR 50 Express (P-N-R to County Line)	<i>Clermont P-N-R east to Orange County Line</i>	Dark Grey	10.0	5
3.2 - SR 50 Express (P-N-R to Groveland)	<i>Clermont P-N-R west to Groveland at SR 19/SR 33</i>	Dark Blue	14.6	7
3.3 - SR 50 Express to Mascotte	<i>Groveland (SR 19/SR 33) west to Mascotte at CR 565</i>	Slate Blue	6.2	3
<b>Clermont Minneola Alternatives</b>				
4.1 - Clermont Minneola SR 50 Bypass	<i>Hancock Rd to Citrus Tower to Grand Highway</i>	Yellow	12.0	6
4.2 - Clermont SR 50 Bypass	<i>Main Street to Minneola Avenue to CR 565A</i>	Pink	12.4	6
4.3 - Clermont/ Groveland/ Mascotte to Leesburg	<i>SR 50 West from CR 565A to CR 33 North to US 27</i>	Brown	65.0	33
4.4 - Mascotte to Sumter County to Leesburg	<i>NW along Tuscanooga Rd. to Secret Promise/Landstone/Renaissance Trails/ Southern Oaks to CR 55 to CR 4 4 and CR 44A to Griffin Road</i>	Orange	63.2	32
<b>Premium Transit Service Alternatives</b>				
<b>Bus Rapid Transit</b>				
<b>SR 50 Bus Rapid Transit</b>				
7.1 - SR 50 BRT (P-N-R to County Line)	<i>Clermont P-N-R east to Orange County Line</i>	Dark Grey	10.0	3
7.2 - SR 50 BRT (P-N-R to Groveland)	<i>Clermont P-N-R west to Groveland at SR 19/SR 33</i>	Dark Blue	14.6	4
7.3 - SR 50 BRT to Mascotte	<i>Groveland (SR 19/SR 33) west to Mascotte at CR 565</i>	Slate Blue	6.2	2
<b>Light Rail Transit</b>				
<b>SR 50 Light Rail Transit</b>				
8.1 - SR 50 LRT (P-N-R to County Line)	<i>Clermont P-N-R east to Orange County Line</i>	Dark Grey	10.0	5
8.2 - SR 50 LRT (P-N-R to Groveland)	<i>Clermont P-N-R west to Groveland at SR 19/SR 33</i>	Dark Blue	14.6	7
8.3 - SR 50 LRT to Mascotte	<i>Groveland (SR 19/SR 33) west to Mascotte at CR 565</i>	Slate Blue	6.2	3

Major activity centers located along SR 50 include the central business districts of Mascotte, Groveland, and Clermont. Rapid growth is also occurring along this corridor. The Plaza Collina Development of Regional Impact (DRI) development order includes a requirement to provide \$100,000 for transit, including operating funds, a bus stop, and a transfer facility. Along SR 50, Traffic TAZs with two to three households per acre are located in Clermont at US 27/SR 25 and SR 50. Employment densities of four to eight employees per acre are located along SR 50 in Clermont. In 2020, Plaza Collina and its surrounding TAZ is expected to have four to eight employees per acre. Additionally, the populations along the SR 50 corridor have grown significantly since the completion of the 2000 census. In April 2006, as revealed in the *How Shall We Grow Population Centers Map*, the populations of Clermont grew from 9,338 to 21,986 people (135 percent), Groveland grew from 2,394 to 5,509 people (130 percent), and Mascotte grew from 2,687 to 4,270 people (59 percent). Combined, these three municipalities have added 120 percent more residents by 2006 than estimated for the 2000 census.

Old Highway 50 (CR 50) joins SR 50 just across the county line in Orange County. The road travels northwest to the Florida Turnpike and continues west to Minneola. CR 50 provides an alternate route to SR 50, and the roadway has paved multi-use trails along much of the route. The Hills of Minneola DRI will have direct access to CR 50, and a new interchange to the Florida Turnpike at Hancock Road will provide access to employment centers in Orlando. CR 50 is north of the Plaza Collina DRI and will provide access to that mixed used development as well.

Employment densities along CR 50 are highest in Minneola with 2.01 to 4.00 employees per acre. In 2020, the TAZ south the Florida Turnpike and north of SR 50 at the Orange county line is projected to have 4.01 to 8.00 employees per acre due to the Plaza Collina development. Household densities north of CR 50 and east of US 27 in Minneola are 2.01 to 3.00 per acre. Additional TAZs in Minneola are expected to have 2.01 to 3.00 households per acre in 2020.

As of the 2000 census, the transit dependent population was not significant along the CR50 corridor for residents over the age of 59, income of \$10,000 or less and no access to vehicles. The 2010 census may reveal a greater transit dependent population along CR 50, as the area has grown significantly since the 2000 census.

LYNX operates the Clermont Express (Route 204) into downtown Orlando from the park-and-ride at US 27/SR 25. Development in Sumter County along State Road 50 is still sparse; however, this arterial provides connections west of the study area to US 301, I-75, Suncoast Parkway, and US 19 in Hernando County.

## 8.7 US 27 – The Villages, Lady Lake, Fruitland Park, Leesburg, Minneola

The range of various transit service alternatives identified in the US 27 corridor are highlighted in **Table 8-6** and shown on **Figure 8-8**. These transit alternatives would not all be recommended for implementation simultaneously. The City of Clermont has identified US 27 South transit service connecting to Four Corners and Disney as very high priorities for them. Several of these alternatives were developed to provide access to DRI's in Lake and Sumter Counties, including Plantation at Leesburg, Highland Lakes, Renaissance Trails, Secret Promise, and others.

**Table 8-6 – US 27 Corridor Transit Alternatives**

Fixed Route Bus Service Alternatives				
US 27 Alternatives				
3.4 - US 27 South to Four Corners	South from Clermont Park and Ride to Four Corners	Dark Orange	29.6	15
3.5 - US 27/ CR 561 Minneola/Astatula/ Tavares	North along US 27 to CR 561 North to Woodlea Road	Pale Orange	37.0	19
3.6 - SR 19/CR 48 Tavares/ Howey-in-the-Hills/Leesburg	Southwest on SR 19 to North Palm Lake Ave. to CR 48	Green	27.2	14
3.7 - CR 470 Leesburg to US 301 Sumterville	West on CR 470 to DRI's - Secret Promise/Landstone	Pale Blue	18.4	9
3.8 - US 27 North from CR 561 to Leesburg	North Along US 27 to Leesburg- Citizen's Blvd.	Magenta	36.8	18

US 27 is a major north-south arterial in Lake County that travels through the northwest corner of the county south to the southwest corner of the county. LYNX operates two express routes with park-and-ride locations departing from US 27. The Clermont Express (Route 204) travels to Orlando via SR 50 from a park-and-ride location on US 27. A second LYNX route operates from the Four Corners area to Disney (Route 55) via U.S. 192 with a park-and-ride location at the Wal-Mart shopping center on US 27. The LakeXpress Cross County Connector (Route 1) operates on US 27 from Lady Lake/The Villages to Fruitland Park and Leesburg before continuing east US 441 to Tavares, Mount Dora, and Eustis. Major activity centers are located along US 27 and include The Villages DRI, town center and hospital, big box retail and shopping centers in Lady Lake, Fruitland Park and Leesburg, the Greyhound Bus Terminal, Christopher C. Ford Commerce Park, Lake Louisa State Park and Four Corners.

Other DRI's, such as the Highland Lakes and Plantation at Leesburg, are age restricted communities that have expressed a desire for transit and show the potential for future ridership. Secret Promise and Renaissance Trails are two proposed mixed used DRIs that have set aside funds for transit and want a connection to The Villages and US 27 would be the most likely route. Other DRIs along US 27 that may warrant future transit include Royal Highlands, Lost Lake Reserve, Kings Ridge, Greater Lakes, and Four Corners. US 27 provides a north-south connection to several key corridors, such as the Florida Turnpike, SR 50 and US 192. This would support regional travel by providing direct access to employment in Orange County. Household densities along US 27 that support transit can be found in areas not currently served. The community of Hawthorne, located north of CR 48 and east of US 27, has 2.01 to 3.00 households



per acre. Other TAZs with household densities of 2.01 to 3.00 households per acre are located along US 27 in Minneola and at SR 50. Transit dependent residents without access to fixed route service can be found in census blocks along US 27.

## 8.8 Northeast Lake County

The range of various transit service alternatives identified in the Northeast Portion of Lake County are highlighted in **Table 8-7** and shown on **Figure 8-8**. These transit alternatives would not all be recommended for implementation simultaneously. Opportunities to connect to VOTRAN service in Volusia County and LYNX service in Seminole County were identified during the public involvement process and are shown on the map.

**Table 8-7 – Northeast Alternatives**

Alternatives	Brief Description	Map Color	Round-Trip (Miles)	Stops
<b>Fixed Route Bus Service Alternatives</b>				
<b>Northeast Lake County Alternatives</b>				
5.1 - Eustis to DeLand	SR 44 from Eustis east to Volusia County line	Grey	48.0	24
5.2 - Altoona to DeLand	SR 42 from Altoona east to Volusia County line	Yellow	37.4	19
5.3 - Mount Dora to Seminole County	SR 46 from Eustis east to Seminole County	Purple	26.2	13

Transit supportive household densities along the corridor that are currently not served by transit include the northwest and southwest corners of CR 44 and SR 19. A large percentage of residents over the age of 59 along the corridor north of Eustis and around Umatilla are currently not served by transit. While the segment of the corridor north of Eustis to Altoona does not have high employment densities along the route, service along this corridor would support the 20,009 (24.6 percent) of Lake County residents who travel to Orange County to work, thus promoting regional connections to LakeXpress routes.

SR/CR 44 is an east-west corridor that serves as a bypass route north of US 441 to Eustis. Major population centers along the corridor include Wildwood in Sumter County, Leesburg, Fort Mason and Eustis in Lake County, as well as DeLand in Volusia County. Currently, service is provided from Paisley to DeLand once a week via CR 42; however, no service is provided along SR 44. Major activity centers along this corridor include the West 44 Industrial Center, as well as activity centers in Leesburg and Eustis. The Pennbrook DRI is an approved mixed use development on SR 44 south of the Villages at the Sumter county line. Additionally, Southern Oaks DRI is located in Sumter County south of SR 44.

Employment densities along the SR/CR 44 corridor are strongest in Leesburg, where the LakeXpress Cross County Connector provides service. The segment of the CR 44 corridor that travels north to Eustis has a higher population of household densities (e.g. three or more

households per acre). Along the SR/CR 44 corridor, transit dependent populations occur north of 441 along CR 44 as well as on SR 44 from Eustis to the Volusia County line.

CR 42 runs from Altoona at SR 19 through Paisley to DeLand in Volusia County. Currently, service is provided once a week between Paisley and Deland. This corridor is primarily a rural corridor, with no major activity centers or DRIs. Much of the northeastern portion of the county is environmentally sensitive land and development is minimal.

Employment densities and household densities are not significant enough to produce choice riders along this corridor. Transit dependent population along this corridor include 31 to 37 percent of the population under the age of 16 south of CR 43 from Paisley to Lake Kathryn, 26 to 50 percent of the population age 60 and above north of CR 42, and 21 to 30 percent of the households making \$10,000 or less south of the corridor from Lake Kathryn to the county line.

### **8.9 CR 561 - Tavares, Astatula, Minneola**

CR 561 is an alternative route to SR 19 from Tavares, and travels through Astatula to the Florida Turnpike where it joins US 27 to Minneola, Clermont, and Four Corners. Southridge Industrial Park is a major activity center along this route. As such, *Alternative 3.5* has been identified for this corridor as shown on **Figure 8-8**. The Hills of Minneola DRI is a mixed use development with access to CR 561 via CR 561A, which is a new Florida Turnpike interchange. While employment densities do not support transit along this corridor, access to the Florida Turnpike and SR 50 via SR 27 provide regional connections to employment in Orange County. Household densities are not currently transit supportive; however, the Hills of Minneola DRI may impact the future household density in the corridor. Transit dependent population is not evident along this corridor.

### **8.10 CR 470/48 - Florida Turnpike, Okahumpka, US 27, US 19**

County Roads 470 and 48 provide a minor east west corridor that joins major employers in Sumter County with the north-south corridors of US 27 and SR 19. Major activity centers along the route include Coleman Federal Prison, SECO, and the Florida Turnpike/CR 470 employment center. As such, *Alternatives 3.6* and *3.7* have been identified for this corridor as shown on **Figure 8-8**. While the communities of Okahumpka, Yalaha and Howey-in-the-Hills are not identified as major population centers in the future, several DRIs along this corridor may warrant transit in the future. The Secret Promise DRI is a proposed mixed use development that joins CR 470. The existing communities of Highland Lakes and Plantation at Leesburg are near the corridor as well.

Employment densities along the corridor are not significant; however access to the Florida Turnpike, US 27 and SR 19 provide access to employment centers in Leesburg, Lady Lake and Eustis, as well as regional access to Orange County. The community of Hawthorne on CR 48 has 2.01 to 3.00 households per acre and supports transit to their community. Additionally, with Secret Promise and Renaissance Trails, the TAZ south of CR 470 and west of the Florida Turnpike is expected to have 2.01 to 3.00 households per acre in 2020.

### ***8.11 Community Circulator Service***

Additional community circulators may be needed to link communities to major corridors. For example, the Lady Lake Community has been impacted by the Villages development, and has seen a number of big box retail developments emerge, leading to potential service needs in the area. The LakeXpress Cross County Connector currently serves the corridor.

The three cities of Tavares, Mount Dora, and Eustis, known as the Golden Triangle, have no community circulator service with the exception of the LakeXpress Cross County Connector and proposed Mount Dora Circulator. Many activity centers are located in the Golden Triangle in addition to two proposed commuter rail stations. County government buildings and low income housing, as well as educational opportunities, and Florida Waterman Hospital generate trips between the three cities in the Golden Triangle. Employment and household densities support transit in the Golden Triangle as employment densities in Tavares and Eustis reach 8.01 to 17.01 employees per acre, and household densities reach 3.01 to 6.34 households per acre. Transit dependent residents are also located in the Golden Triangle, with several TAZs comprising of 11 to 20 percent of households with no access to vehicles and 11 to 20 percent of households with an income of \$10,000 or less. The elderly population is also prevalent making up 21 to 75 percent of the population in several TAZs in Mount Dora and Tavares. Eustis has a TAZ with 31 to 37 percent of the population age 15 years or less according to the 2000 census.

The cities of Groveland, Mascotte, and Minneola have experienced significant growth since the 2000 census, yet do not have any community transit service. Employment densities in these cities do not support transit; however, proximity to SR 50 and access to employment in Orange County may warrant connections to regional service along SR 50. Household densities in Minneola are strongest for transit with 2.01 to 3.00 persons per acre. Because the area has grown tremendously since the 2000 census, the transit dependent population may be different after the 2010 census.

The city of Clermont has seen a dramatic increase in population since the 2000 census, and LYNX operates the Clermont Express service to Orange County. Major Activity centers in Clermont include South Lake Memorial Hospital and Lake Sumter Community College/University of Central Florida. Several approved DRIs in or around Clermont include

Lost Lake Reserve, Kings Ridge and Plaza Collina. Employment densities in Clermont along SR 50 are 4.01 to 8.00 employees per acre. Household densities in several TAZs in Clermont are 2.01 to 3.00 per acre with the Kings Ridges and Lost Lake Reserve adding another TAZ with 2.01 to 3.00 households per acre in 2020. In 2000, Clermont had a TAZ with 31 to 43 percent of the households making an income of \$10,000 or less and 31 to 44 percent of the households not owning a vehicle. While the percent of population over the age of 59 was not significant, 21 to 30 percent of the population is 15 years old or less.

### ***8.12 Regional Connections***

A significant number of Lake County residents commute to other counties for employment. Most notably, Lake County residents commute to Orange County as noted earlier. This indicates the need for regional transit service in Lake County connecting to adjacent communities. Limited regional bus service is currently offered in Lake County. LYNX operates two express routes from the southern portion of Lake County to employment centers in Orange County. Additionally, once weekly service is provided from Paisley to DeLand in Volusia County, and the LakeXpress Cross County Connector provides a connection to Sumter County at The Villages. Other potential corridors that could support regional transit as mentioned in the previous corridor descriptions include Mount Dora to Zellwood in Orange County via 441, and the Florida Turnpike, where several new DRIs include new interchanges as part of their development. Additional regional connections to adjacent counties would be Marion and Sumter Counties at The Villages, Sumter County via SR 50, CR 470 and SR 44; Polk County at Four Corners, and Volusia County via SR 44/CR 42.

### ***8.13 Presentation of Alternatives***

The various alternatives have been assembled into three service plan alternatives. As discussed earlier, Lake County Public Transportation (LCPT) and Lake~Sumter MPO staff have developed goals and objectives for the Transit Development Plan and incorporated public input to refine those goals and objectives. The identified alternatives reflect public involvement comments provided to date. In the Finance Plan, the initial cost estimates for each alternative have been identified.

Figure 8-9: Alternative #1 Map of Corridors

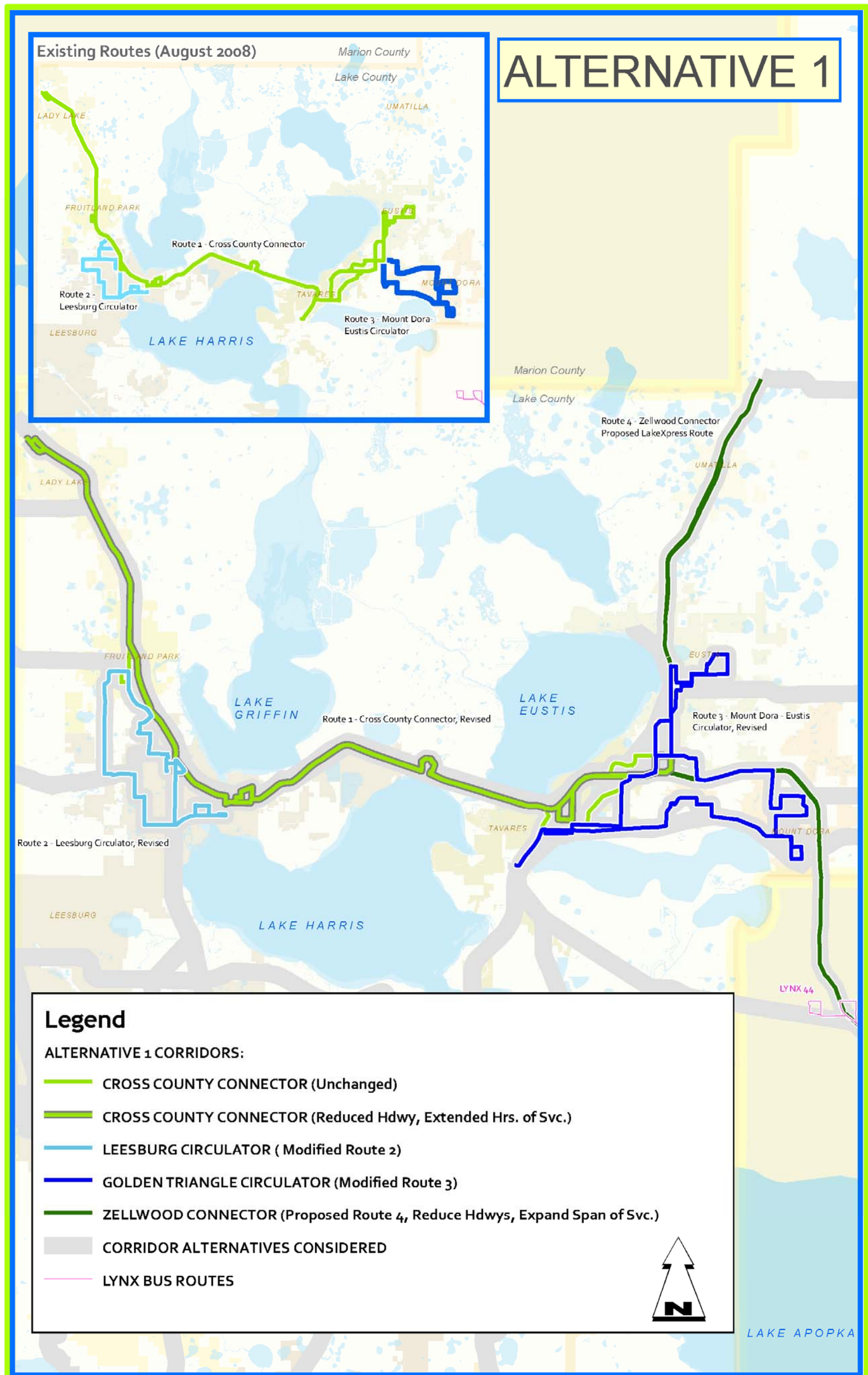


Figure 8-10: Alternative #2 Map of Corridors

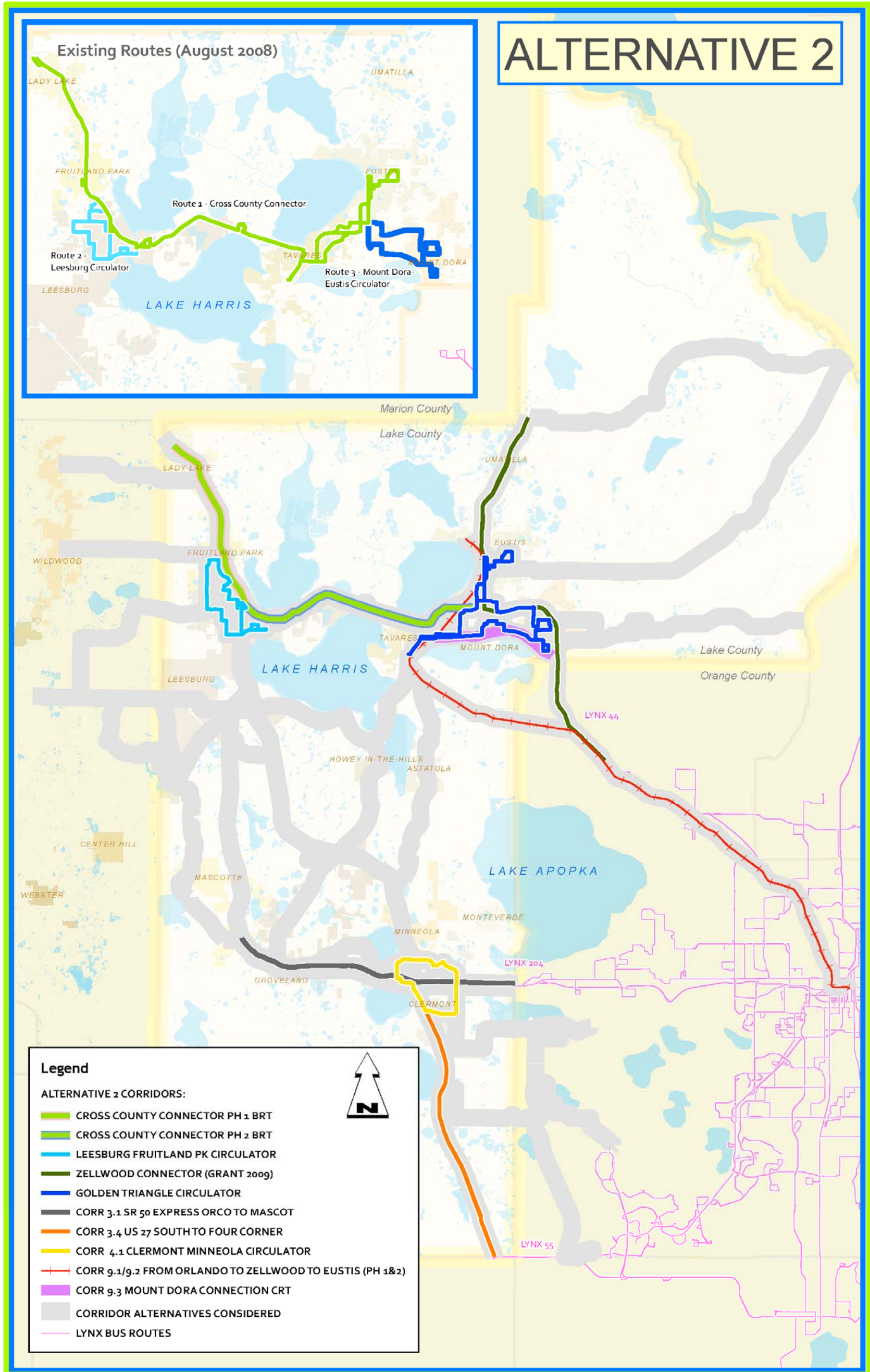
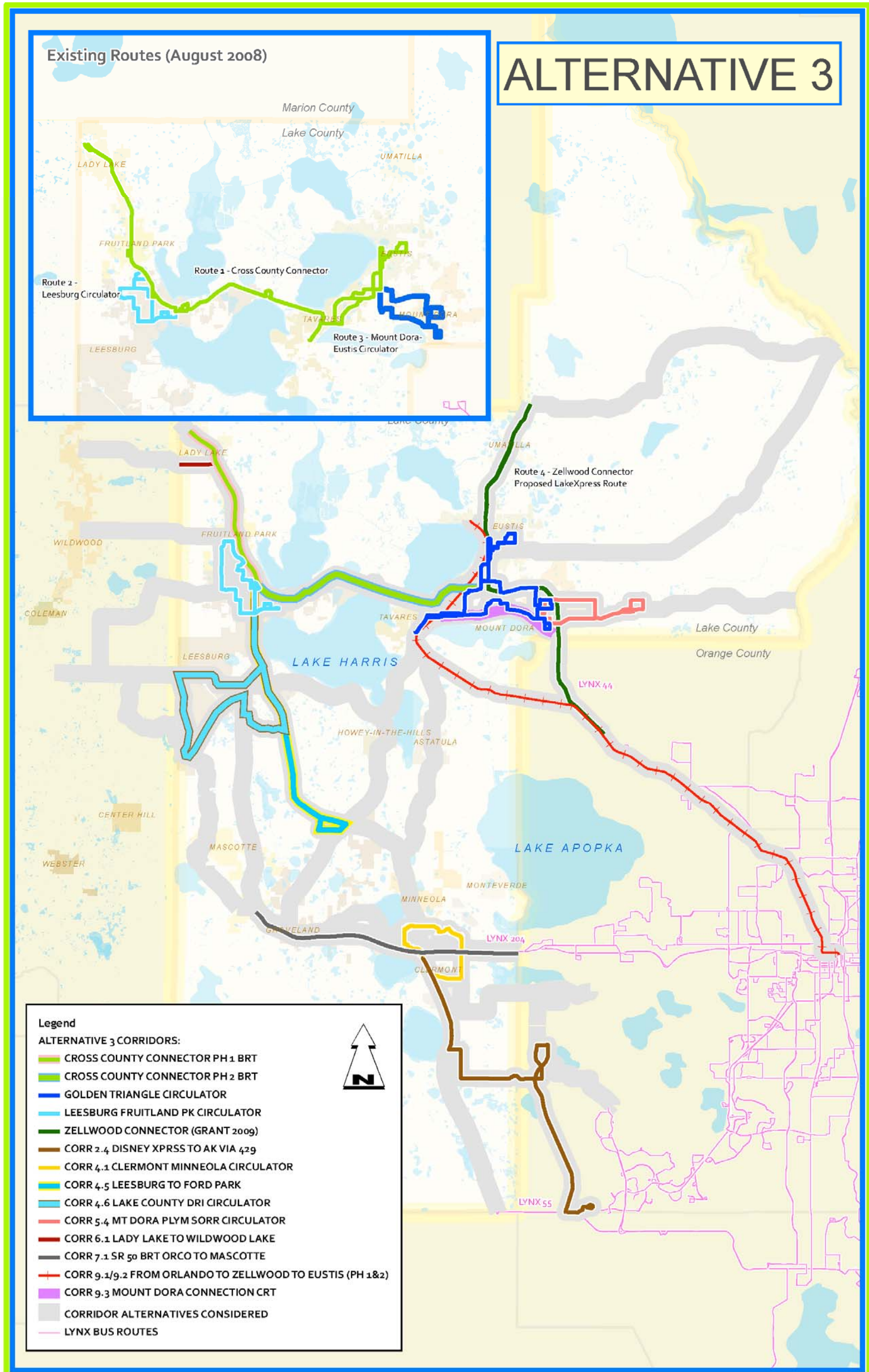


Figure 8-11: Alternative #3 Map of Corridors



**Table 8-8: Alternative Corridors**

Descriptive Name	Corridor Number	Start Year	Mode
ROUTE 1 - CROSS COUNTY CONNECTOR (AS IS)	1.10	2007	Fixed Route
ROUTE 1 - CROSS COUNTY CONNECTOR (MODIFIED & ENHANCED)	1.11	2012	Fixed Route
ROUTE 2 - LEESBURG CIRCULATOR (AS IS)	1.20	2007	Circulator
ROUTE 2 - LEESBURG FRUITLAND PARK CIRCULATOR (MODIFIED AND ENHANCED)	1.21	2012	Circulator
ROUTE 3 - MOUNT DORA CIRCULATOR (AS IS)	1.30	2008	Circulator
ROUTE 3 - GOLDEN TRIANGLE CIRCULATOR (MODIFIED AND ENHANCED)	1.31	2012	Circulator
ROUTE 4 - ZELLWOOD CONNECTOR (AS IS)	1.40	2009	Fixed Route
ROUTE 4 - ZELLWOOD CONNECTOR (ENHANCED)	1.41	2012	Fixed Route
2.1 EXPRESS TO DISNEY/REAMS ROAD	2.10	2015	Express Bus
2.2 EXPRESS TO DISNEY/COUNTY LINE	2.20	2015	Express Bus
2.3 EXPRESS TO WINTER GARDEN VILLAGE AT FOWLER'S GROVE	2.30	2015	Express Bus
2.4 DISNEY EXPRESS TO US 192 AND ANIMAL KINGDOM VIA SR 429 (LIMITED ACCESS)	2.40	2015	Express Bus
3.1 SR 50 EXPRESS ORANGE COUNTY TO MASCOTTE	3.10	2012	Express Bus
3.4 US 27 SOUTH TO FOUR CORNER	3.40	2015	Express Bus
3.5 US27/CR561 MINNEOLA/ASTATULA	3.50	2015	Fixed Route
3.6 SR 19/CR48 TAVARES/HOWEY HILLS	3.60	2017	Fixed Route
3.7 CR 470 LEESBURG TO US 301 SUMTER	3.70	2017	Fixed Route
3.8 US 27 N. FROM CR561 TO LEESBURG	3.80	2017	Fixed Route
3.9 SR19 NORTH FROM US27 TO TAVARES	3.90	2017	Fixed Route
4.1 CLERMONT MINNEOLA CIRCULATOR	4.10	2015	Circulator
4.2 CLERMONT SR50 BYPASS	4.20	2012	Fixed Route
4.3 CLERMONT/GROVELAND/MASCOTTE	4.30	2017	Fixed Route
4.4 MASCOTTE TO SUMTER COUNTY (LAKE)	4.40	2017	Fixed Route
4.4 MASCOTTE TO SUMTER COUNTY (SUMTER)	4.40	2017	Fixed Route
4.5 LEESBURG TO FORD PARK	4.50	2012	Fixed Route
4.6 LAKE COUNTY DRI CIRCULATOR	4.60	2015	Circulator
5.1 EUSTIS TO DELAND	5.10	2015	Express Bus
5.2 ALTOONA TO DELAND	5.20	2012	Express Bus
5.3 MOUNT DORA TO SEMINOLE COUNTY	5.30	2019	Express Bus
5.4 MOUNT DORA PLYMOUTH SORRENTO CIRCULATOR	5.40	2015	Fixed Route
6.1 LADY LAKE TO WILDWOOD (LAKE COUNTY PORTION)	6.10	2015	Fixed Route
6.1 LADY LAKE TO WILDWOOD (SUMTER COUNTY PORTION)	6.10	2015	Fixed Route
6.2 FRUITLAND PARK TO WILDWOOD	6.20	2015	Fixed Route
7.1 SR 50 BRT ORANGE COUNTY TO MASCOTTE	7.10	2015	BRT
7.41 CROSS COUNTY CONNECTOR PH 1 BRT	7.41	2015	BRT
7.42 CROSS COUNTY CONNECTOR PH 2 BRT	7.42	2015	BRT
8.1 REV SR 50 LRT ORANGE COUNTY LINE TO CR 33	8.10	2019	LRT
8.1 SR 50 LRT CLERMONT P-N-R TO ORANGE COUNTY LINE	8.10	2019	LRT
8.2 SR 50 LRT CLERMONT TO MASCOTTE	8.20	2019	LRT
8.3 SR 50 LRT TO MASCOTTE	8.30	2019	LRT
8.4 CROSS COUNTY CONNECTOR LRT	8.40	2019	LRT
9.1 PHASE 1 FROM ORLANDO TO ZELL	9.10	2015	CRT
9.2 PHASE 2 FROM ZELLWOOD TO EUSTIS	9.20	2019	CRT
9.3 MOUNT DORA CONNECTION CRT	9.30	2019	CRT



## **8.14 Commuter Rail**

In addition to bus service, the Orlando area has studied commuter rail for the region. In August 2001, the Florida Central Railroad conducted a study to assess the feasibility of the Northwest Corridor, the proposed commuter rail service along the Florida Central Railroad (FCRR) from Eustis and Apopka to downtown Orlando. Two stations identified in the study were located in Lake County, including:

- **Eustis:** This station would serve as a major park and ride station with kiss and ride facilities and ancillary bus facilities; and
- **Tavares:** This station would serve as an activity center station with kiss and ride facilities as well as bus drop off facilities.

The study identified an option of temporarily ending the commuter line in Zellwood to make the project more feasible and attractive to Federal, State and local parties. As evidenced by the recent Central Florida Light Rail project, securing Federal, State and local support for a project of this magnitude is difficult.

The study suggests that the Zellwood Station would adequately serve the Lake County market because one-third of the travel time from Eustis to downtown Orlando via commuter rail occurs over the 13 mile stretch from Zellwood to Eustis. The study reveals that commuters entering the commuter rail system at the Eustis station, and possibly the Tavares station, would have a faster total travel time if they drove to the Zellwood station.

To pursue this project, it is recommended that the Federal and state transit project development process, which currently mirrors each other, be adhered to. It is anticipated that the Northwest Commuter Rail project could potentially qualify as a Small Starts application. Thus, an Alternatives Analysis and project development phase (seeking environmental clearance) should be conducted. If a lesser project in terms of capital investment or scope is desired, an environmental assessment may suffice. In order to maximize Federal funding potential for the Northwest Corridor project, the evaluation of the project should be consistent with Federal criteria for major transit capital investment (New Starts) projects. FTA has revised the criteria used to evaluate candidate projects for discretionary New Start funding under Section 5309 of the Federal Transit Act.

### 8.15 Future Bus Stops and Park and Rides

The current LakeXpress system is a flag stop system. However, the Lake-Sumter MPO began the process of identifying bus stops along the current routes. Two park and ride facilities are located on US 27 to accommodate the LYNX Express routes. One is located at SR 50 and US 27; the other is located at the Wal-Mart at US 27 and US 192. Currently, the Walgreens at Mount Dora is identified as the transfer point between the LakeXpress connector and the Mount Dora Circulator. However, the MPO has access to 18 acres at Lincoln Avenue and US 441 in Mount Dora for park and ride. As regional service is implemented, the need for additional park and ride facilities will arise.

**Table 8-9: Intermodal Centers and Park-and-Rides**

Alternative	Description	Start Year (YOE)	Total Capital Costs
1	Improvements to US 27/ SR 50 Clermont PNR	FY 2011/12	\$ 10,000,000
2	Improvements to US 27/ SR 50 Clermont PNR	FY 2011/12	\$ 10,000,000
	Park-and-Ride at US 19 South of Turnpike	FY 2012/13	\$ 500,000
	Park-and-Ride #3	FY 2014/15	\$ 500,000
3	Improvements to US 27/ SR 50 Clermont PNR	FY 2011/12	\$ 10,000,000
	Park-and-Ride at US 19 South of Turnpike	FY 2012/13	\$ 500,000
	Intermodal Center on US 441 near CR 449	FY 2014/15	\$ 9,000,000
	Park-and-Ride #3	FY 2014/15	\$ 500,000
	Park-and-Ride #4	FY 2015/16	\$ 500,000
	Park-and-Ride #5	FY 2016/17	\$ 500,000
	Park-and-Ride #6	FY 2016/17	\$ 500,000
	Park-and-Ride #7	FY 2016/17	\$ 500,000
	Park-and-Ride #8	FY 2016/17	\$ 500,000

**Table 8-10: Alternative #1 Summary of Proposed Service**

	Corridor #	Description	Mode
<b>1st Five</b>	1.10	LX Route 1 - Cross County Connector (Operated as is until 2012)	Fixed Route
	1.20	LX Route 2 - Leesburg Circulator (Operated as is until 2012)	Fixed Route
	1.30	LX Route 3 - Mount Dora Circulator (Operate as is until 2012)	Fixed Route
	1.40	ZELLWOOD CONNECTOR (GRANT 2009)	Fixed Route
	1.11	Rev LX Route 1 - Cross County Connector (Streamline in 2012)	Fixed Route
	1.21	LEESBURG FRUITLAND PARK CIRCULATOR	Circulator
	1.31	GOLDEN TRIANGLE CIRCULATOR	Circulator
	1.41	ZELLWOOD CONNECTOR AM/PM HW	Fixed Route
<b>2nd Five</b>	7.41	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 1)	BRT
	7.42	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 2)	BRT
	9.10	NORTHWEST COMMUTER RAIL PHASE 1 (ORLANDO TO ZELLWOOD)	CRT
	9.20	NORTHWEST COMMUTER RAIL PHASE 2 (ZELLWOOD TO EUSTIS)	CRT
	9.30	NORTHWEST COMMUTER RAIL (MOUNT DORA CONNECTION)	CRT

**Table 8-11: Alternative #2 Summary of Proposed Service**

	Corridor #	Description	Mode
<b>1st Five</b>	1.10	LX Route 1 - Cross County Connector (Operated as is until 2012)	Fixed Route
	1.20	LX Route 2 - Leesburg Circulator (Operated as is until 2012)	Fixed Route
	1.30	LX Route 3 - Mount Dora Circulator (Operate as is until 2012)	Fixed Route
	1.40	ZELLWOOD CONNECTOR (GRANT 2009)	Fixed Route
	1.11	Rev LX Route 1 - Cross County Connector (Streamline in 2012)	Fixed Route
	1.21	LEESBURG FRUITLAND PARK CIRCULATOR	Circulator
	1.31	GOLDEN TRIANGLE CIRCULATOR	Circulator
	1.41	ZELLWOOD CONNECTOR AM/PM HW	Fixed Route
	3.10	SR 50 EXPRESS ORANGE COUNTY TO MASCOTTE	Express Bus
<b>2nd Five</b>	3.40	US 27 SOUTH TO FOUR CORNERS	Express Bus
	4.10	CLERMONT MINNEOLA CIRCULATOR	Circulator
	7.41	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 1)	BRT
	7.42	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 2)	BRT
	9.10	NORTHWEST COMMUTER RAIL PHASE 1 (ORLANDO TO ZELLWOOD)	CRT
	9.20	NORTHWEST COMMUTER RAIL PHASE 2 (ZELLWOOD TO EUSTIS)	CRT
9.30	NORTHWEST COMMUTER RAIL (MOUNT DORA CONNECTION)	CRT	

**Table 8-12: Alternative #3 Summary of Proposed Service**

	Corridor #	Description	Start Year	Mode
1st Five	1.10	LX Route 1 - Cross County Connector (Operated as is until 2012)	2007	Fixed Route
	1.20	LX Route 2 - Leesburg Circulator (Operated as is until 2012)	2008	Fixed Route
	1.30	LX Route 3 - Mount Dora Circulator (Operate as is until 2012)	2009	Fixed Route
	1.40	ZELLWOOD CONNECTOR (GRANT 2009)	2009	Fixed Route
	1.11	Rev LX Route 1 - Cross County Connector (Streamline in 2012)	2012	Fixed Route
	1.21	LEESBURG FRUITLAND PARK CIRCULATOR	2012	Circulator
	1.31	GOLDEN TRIANGLE CIRCULATOR	2012	Circulator
	1.41	ZELLWOOD CONNECTOR AM/PM HW	2012	Fixed Route
	3.10	SR 50 EXPRESS ORANGE COUNTY TO MASCOTTE	2012	Express Bus
4.50	LEESBURG TO CHRIS FORD INDUSTRIAL PARK	2012	Fixed Route	
2nd Five	2.40	DISNEY EXPRESS TO ANIMAL KINGDOM VIA 429	2015	Express Bus
	3.40	US 27 SOUTH TO FOUR CORNERS	2015	Express Bus
	4.10	CLERMONT MINNEOLA CIRCULATOR	2015	Circulator
	4.60	LAKE COUNTY DRI CIRCULATOR	2015	Circulator
	5.40	MOUNT DORA-PLYMOUTH-SORRENTO CIRCULATOR	2015	Fixed Route
	6.10	LADY LAKE TO WILDWOOD (LAKE COUNTY PORTION)	2015	Fixed Route
	7.10	SR 50 BUS RAPID TRANSIT (ORANGE CO. TO MASCOTTE)	2015	BRT
	7.41	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 1)	2015	BRT
	7.42	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 2)	2015	BRT
	9.10	NORTHWEST COMMUTER RAIL PHASE 1 (ORLANDO TO ZELLWOOD)	2015	CRT
	9.20	NORTHWEST COMMUTER RAIL PHASE 2 (ZELLWOOD TO EUSTIS)	2015	CRT
9.30	NORTHWEST COMMUTER RAIL (MOUNT DORA CONNECTION)	2015	CRT	

## **8.16 Evaluation Measures**

Evaluation measures are grouped generally into measures of performance, effectiveness, and efficiency. For transportation planning purposes, it is difficult to determine the performance, effectiveness, and efficiency of future service. In the **Section 7**, it was noted that the performance, effectiveness, and efficiency of LakeXpress services were above anticipated levels. In order to evaluate planned service, alternative corridors are compared to the anticipated future transit demand, as presented in **Section 5**. The proposed corridors were presented earlier in comparison to identified needs and future development patterns. Additional ridership estimation was conducted using the TBEST model, as described below and presented in **Appendix K**.

### *TBEST Demand Projection Estimates*

Transit ridership projection techniques can be used to assist in understanding potential demand for public transportation. The *2020 Florida Transportation Plan* identifies increasing transit ridership as a method to enhance Florida's quality of life. As such, public transportation systems are expected to expand their services and improve their level of service. Many land use and reliability factors influence transit use. The FDOT Public Transit Office (PTO) developed the TBEST (Transit Boardings Estimation and Simulation Tool) model to assist agencies as they prepare their TDP's. TBEST is capable of estimating transit ridership at the route stop-level and aggregating ridership to the segment, route, and system levels. The PTO released TBEST Version 3.1 in May 2008. It is a "micro-level" transit analysis and ridership forecasting model that is capable of simulating travel demand while accounting for network connectivity, accessibility, and route alignments.

The results of this TBEST analysis can be used in the evaluation and planning process, especially related to the implementation and timing of new routes. A brief summary of the TBEST-based annual ridership projections for Lake County from 2009 through 2020 is presented in **Table 8-13**. The Golden Triangle Circulator and the Cross County Connector (Route 1), which will be expanded later to operate with more frequency, are projected as the two routes with the highest annual ridership in Lake County. Once expanded to incorporate BRT service, the Cross County Connector is projected to serve nearly 250,000 trips annually by 2020, while the Golden Triangle Circulator is projected to serve over 275,000 trips annually by 2020. The Zellwood Connector, which will be implemented in 2009, and the Leesburg/Fruitland Park Circulator are projected to provide over 100,000 trips each by 2020 in Lake County.

**Table 8-13 – Alternative Corridors Ridership Summary**

**TBEST Analysis (FY 2009 - FY 2020)**

Route Alternative	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Cross County Connector (Existing Route 1)	91,364	94,513	97,663									
Leesburg Circulator (Existing Route 2)	29,439	30,302	31,166									
Mount Dora Circulator (Existing Route 3)	35,839	37,059	38,278									
Zellwood Connector	23,317	31,841	40,742									
Cross County Connector (AM/PM Headway)				100,863	113,068	125,273						
SR 50 Express (Orlando to Mascotte)				2,972	4,399	6,045						
Zellwood Connector (AM/PM Headway)				75,149	80,529	85,910	90,373	97,765	105,156	112,547	119,939	127,330
Leesburg/Fruitland Park Circulator				49,251	54,216	59,182	68,047	77,978	87,909	97,841	107,772	117,704
Golden Triangle Circulator				73,198	109,535	151,841	177,622	197,998	218,374	238,750	259,126	279,502
Leesburg to Ford Park				11,643	16,642	22,200	30,709	33,787	36,866	39,944	43,023	46,101
SR 50 BRT (Orlando to Mascotte)							12,344	17,715	23,713	25,283	26,853	28,423
Cross County Connector BRT (Phase 1)							43,459	52,989	62,520	72,050	81,580	91,110
Cross County Connector BRT (Phase 2)							109,093	118,557	128,021	137,485	146,949	156,413
Lake County DRI Circulator							24,735	35,276	46,965	49,835	52,705	55,575
US 27 South to Four Corners							3,688	5,490	7,579	8,296	9,012	9,728
Clermont/Minneola Circulator							9,083	13,017	17,404	18,537	19,670	20,803
Lady Lake to Wildwood Lake							411	581	767	808	848	889
Disney Express to AK -WDW							1,173	1,638	2,139	2,231	2,323	2,414
Mount Dora Plymouth-Sorrento Circulator							4,191	6,080	8,214	8,829	9,444	10,058

Notes:

1. For existing service and new improvements, results from the TBEST model runs provided ridership projections for FY 2009, FY 2011, FY 2012, FY 2014, FY 2015, and FY 2020. The ridership projections for the other years were calculated based on the increase in ridership between two adjoining years.
2. It was assumed that ridership did not stabilize until the third year of operation for any new improvement that is not a transformation/realignment of an existing route. Ridership in the first year of new improvement was assumed to be 60 percent of the ridership projected by TBEST for that year. Ridership in the second year was assumed to be 80 percent of the ridership projected by TBEST for that year.

### Transit Quality Level of Service

The transit quality of service framework is presented in the *Transit Capacity and Quality of Service Manual (TCQSM)*. This framework provides a methodology for understanding level of service from the passenger's perspective. There are six criteria identified in the TCQSM include: (1) service frequency; (2) hours of service; (3) service coverage; (4) passenger loading; (5) reliability; and (6) transit versus auto travel time. For the purposes of the development and evaluation of transit improvements for this TDP Major Update, the quality of service improvements focused on increased service frequency, enhanced hours of operation, and service coverage. The current LakeXpress services are already operating well in terms of reliability and passenger loading. The estimation of transit versus auto travel time was beyond the scope of this effort; however, this factor was considered qualitatively rather than quantitatively. For example, the streamlining of Route 1 is designed to improve transit travel time for this regional transit corridor as is the identification of BRT as a future transit enhancement for the SR 50 and US 441 corridors.

The TCQSM level of service measures utilized for the assessment of proposed improvements include hours of operation as defined in **Table 8-14**; service frequency as defined in **Table 8-15**, and service coverage as defined in **Table 8-16**:

**Table 8-14: Hours of Operation LOS Measures**

LOS	Hours per Day	Description
A	19-24	Night or "owl" service provided
B	17-18	Late evening service provided
C	14-16	Early evening service provided
D	12-13	Daytime service provided
E	4-11	Peak hour service only or limited midday service
F	0-3	Very limited or no service

**Table 8-15: Service Frequency LOS Measures**

LOS	Headway (Min.)	Vehicles/Hr	Description
A	<10	>6	Passengers don't need schedules
B	10-14	5-6	Frequent Service, Passengers consult schedules
C	15-20	3-4	Maximum desirable time to wait if bus missed
D	21-30	2	Service unattractive to choice riders
E	31-60	1	Service available during hour
F	>60	<1	Service unattractive to all riders

**Table 8-16: Service Coverage LOS Measures**

LOS	Percent of Transit-Supportive Area Covered
A	90%-100%
B	80%-89.9%
C	70%-79.9%
D	60%-69.9%
E	50%-59.9%
F	<50%

The TCQSM level of service would be improved for service frequency from LOS E to LOS D and from LOS D to LOS C for span of service along Routes 1, 2, and 3. By increasing the span of service and reducing headways, the identified improvements would increase the LOS from The three existing LakeXpress Routes provide service coverage LOS C. Route 4 headway reductions increase the LOS from LOS f to LOS E and the hours of service improve the LOS from LOS D to LOS C.

#### Evaluation of Alternatives

The transit corridors presented in **Table 8-8** were evaluated by the public. Transit corridors determined by the community to address future transportation needs were considered further by the study team. The transit corridors were combined into three Alternatives presented in **Tables 8-10, 8-11, and 8-12**. To determine the preferred alternative, public input, potential ridership, and enhanced transit quality were considered. As such, Alternative #1 provided the highest ridership, most improved LOS, and community acceptability. Some transit corridors identified in the other two Alternatives were also reviewed favorably. **Table 8-17** present the results based on the evaluation measures described above. The criteria used for the analysis were weighted with values categorized by: Very High, High, Medium, and Low. This allowed the study team to determine which corridors provided greater access to citizens and visitors of Lake County, while providing an efficient and effective service that would meet the needs of existing and future patrons. A total of twenty-two alternative corridors have been identified for further consideration based on existing and future conditions of the criteria used for the analysis. The remaining corridors may be considered increasingly feasible for implementation during subsequent updates to the TDP. Based upon new circumstances, it may be determined that certain corridors identified in this TDP should be studied further. Alternatives may be advanced based upon opportunities for funding partnerships, increased development intensity, or other factors.



**Table 8-17 – Alternative Corridors Prioritization Matrix**

Alternative Corridors	Improve TQLOS	Improves Regional Connectivity	ADA Accessible Corridor	Relative Cost to Riders Served	Transportation Disadvantaged Served	Access to Households	Access to Employment	Access to Activity Centers	DRI's	Connection to Population Centers	Access to Community Facilities
1.10 - Route 1 - Cross County Connector (As Is)	●	●	▲	▼	▲	▲	▲	▲	▼	▲	▲
1.11 - Route 1 - Cross County Connector (Modified & Enhanced)	▲	▲	▲	▼	▲	▲	▲	▲	▼	▲	▲
1.20 - Route 2 - Leesburg Circulator (As Is)	●	●	▲	▼	▲	▲	▲	▲	▼	▲	▲
1.21 - Route 2 - Leesburg Fruitland Park Circulator (Modified & Enhanced)	▲	▲	▲	▼	▲	▲	▲	▲	▼	▲	▲
1.30 - Route 3 - Mount Dora Circulator (As Is)	●	●	▲	▼	▲	▲	▲	▲	▼	▲	▲
1.31 - Route 3 - Golden Triangle Circulator (Modified & Enhanced)	▲	▲	▲	▼	▲	▲	▲	▲	▼	▲	▲
1.40 - Route 4 - Zellwood Connector (As Is)	●	●	▼	▼	▲	▲	▲	▲	▼	▲	▲
1.41 - Route 4 - Zellwood Connector (Enhanced)	▲	▲	▼	▼	▲	▲	▲	▲	▼	▲	▲
2.10 - Express to Disney/Reams Road	▲	▲	▼	▼	▼	▼	●	▼	▼	▼	▼
2.20 - Express to Disney/County Line	▲	▲	▼	▼	▼	▼	●	▼	▼	▼	▼
2.30 - Express to Winter Garden Village at Fowler's Grove	▲	▲	▼	▼	▼	▼	●	▲	▼	●	●
2.40 - Disney Express to US 192 and Animal Kingdom via SR 429 (Limited Access)	▲	▲	▼	●	●	●	▲	▲	●	▲	▲
3.10 - SR 50 Express Orange County to Mascotte	▲	▲	▼	▼	●	▲	▲	▲	●	▲	▲
3.40 - US 27 South to Four Corner	▲	▲	▼	●	●	▲	▲	▲	▲	▲	▲
3.50 - US 27/CR 561 Minneola/Astatula	▲	▲	●	●	●	●	●	●	▼	▲	●
3.60 - SR 19/CR 48 Tavares/Howey Hills	▲	▲	●	●	●	▼	●	▼	▼	●	▼
3.70 - CR 470 Leesburg to US 301 Sumter	▲	▲	▼	▲	▼	▼	●	●	▲	▼	▼
3.80 - US 27 N. From CR 561 to Leesburg	▲	▲	▼	●	●	●	●	●	▼	▼	●
3.90 - SR 19 North from US 27 to Tavares	▲	▲	▼	●	●	▼	●	▼	▼	●	▼
4.10 - Clermont Minneola Circulator	▲	▲	▲	▲	▼	●	▲	▲	▲	▼	▲
4.20 - Clermont SR 50 Bypass	▲	▲	▲	▼	▼	▼	●	●	▼	▼	●
4.30 - Clermont/Groveland/Mascotte	▲	▼	▲	●	▼	●	▼	▼	▼	▼	▼
4.40 - Mascotte to Sumter County (Lake)	▲	▲	▼	▲	▼	▼	●	●	▲	▼	▼
4.40 - Mascotte to Sumter County (Sumter)	▲	▲	▼	▲	▼	▼	●	●	▲	▼	▼
4.50 - Leesburg to Ford Park	▲	▲	●	▲	▲	▲	▲	▲	▲	●	▼
4.60 - Lake County DRI Circulator	▲	▲	●	▼	▲	▲	●	▲	▲	▲	●
5.10 - Eustis to DeLand	▲	▲	▼	▼	●	▼	▼	●	▼	●	●
5.20 - Altoona to DeLand	●	▲	▼	▼	▼	▼	▼	▼	▼	▼	▼
5.30 - Mount Dora to Seminole County	●	▲	●	▼	●	●	●	▼	▼	▼	▼
5.40 - Mount Dora Plymouth Sorrento Circulator	▲	▲	●	▼	●	●	●	▼	▼	●	▼
6.10 - Lady Lake to Wildwood (Lake County Portion)	●	●	▼	▲	▼	●	●	▼	▲	▲	▼
6.10 - Lady Lake to Wildwood (Sumter County Portion)	●	●	▼	▼	●	▲	▲	●	▲	▲	●
6.20 - Fruitland Park to Wildwood	●	●	▼	▼	▼	▼	▼	●	●	▼	●
7.10 - SR 50 BRT Orange County to Mascotte	▲▲	▲	▲	●	●	●	▲	●	▼	▲	●
7.41 - Cross County Connector PH 1 BRT	▲▲	▲	▲	●	●	▲	▲	●	●	▲	●
7.42 - Cross County Connector PH 2 BRT	▲▲	▲	▲	●	●	▲	▲	●	●	▲	●
8.10 - REV SR 50 LRT Orange County Line to CR 33	▲▲	▲▲	●	▲▲	●	▼	▼	▼	▼	▼	▼
8.10 - SR 50 LRT Clermont P-N-R to Orange County Line	▲▲	▲▲	▲	▲▲	●	●	●	●	▼	▼	●
8.20 - SR 50 LRT Clermont to Mascotte	▲▲	▲▲	●	▲▲	●	▼	▼	▼	▼	●	▼
8.30 - SR 50 LRT to Mascotte	▲▲	▲▲	●	▲▲	●	▼	▼	▼	▼	●	▼
8.40 - Cross County Connector LRT	▲▲	▲▲	▲	▲	▲	▲	●	▲	●	●	▲
9.10 - Phase 1 from Orlando to Zellwood	▲	▲	▲	▲	▲	▲▲	▲▲	●	▼	▲	▲
9.20 - Phase 2 from Zellwood to Eustis	▲	▲	▲	▲	▲	▲▲	▲▲	●	▼	▲	▲
9.30 - Mount Dora Connection CRT	▲	▲	▲	▲	▲	▲▲	▲▲	▲	▼	●	▲

▲▲ - Very High  
▲ - High  
● - Medium  
▼ - Low

### ***8.17 Recommended Alternative***

The various Alternatives were reviewed by the community and evaluated based upon the considerations described above. Criteria used to evaluate various transit service enhancements and corridors included, but were not limited to, the following:

1. Does it provide accessible service for transportation disadvantaged persons?
2. Does the alternative link people to jobs?
3. Does the alternative serve existing development or approved developments?
4. Does the alternative reinforce desirable development patterns?
5. Does this alternative serve employment centers and activity generators?
6. Is the alternative cost-effective?
7. Are there transit supportive densities in the vicinity?
8. Are there multimodal linkages in the vicinity?
9. Does it provide access to community facilities and social service organizations?
10. Does it serve unmet needs?
11. Is this service responsive to increasing travel demand?
12. Is the alternative financially feasible for the community?

As a result of the analysis described above, Alternative #1 has been recommended for implementation. This Alternative allows the community to focus service improvements where there is a significant transportation need, an opportunity to reinforce desirable development patterns, and improve the transit quality of service in the study area.

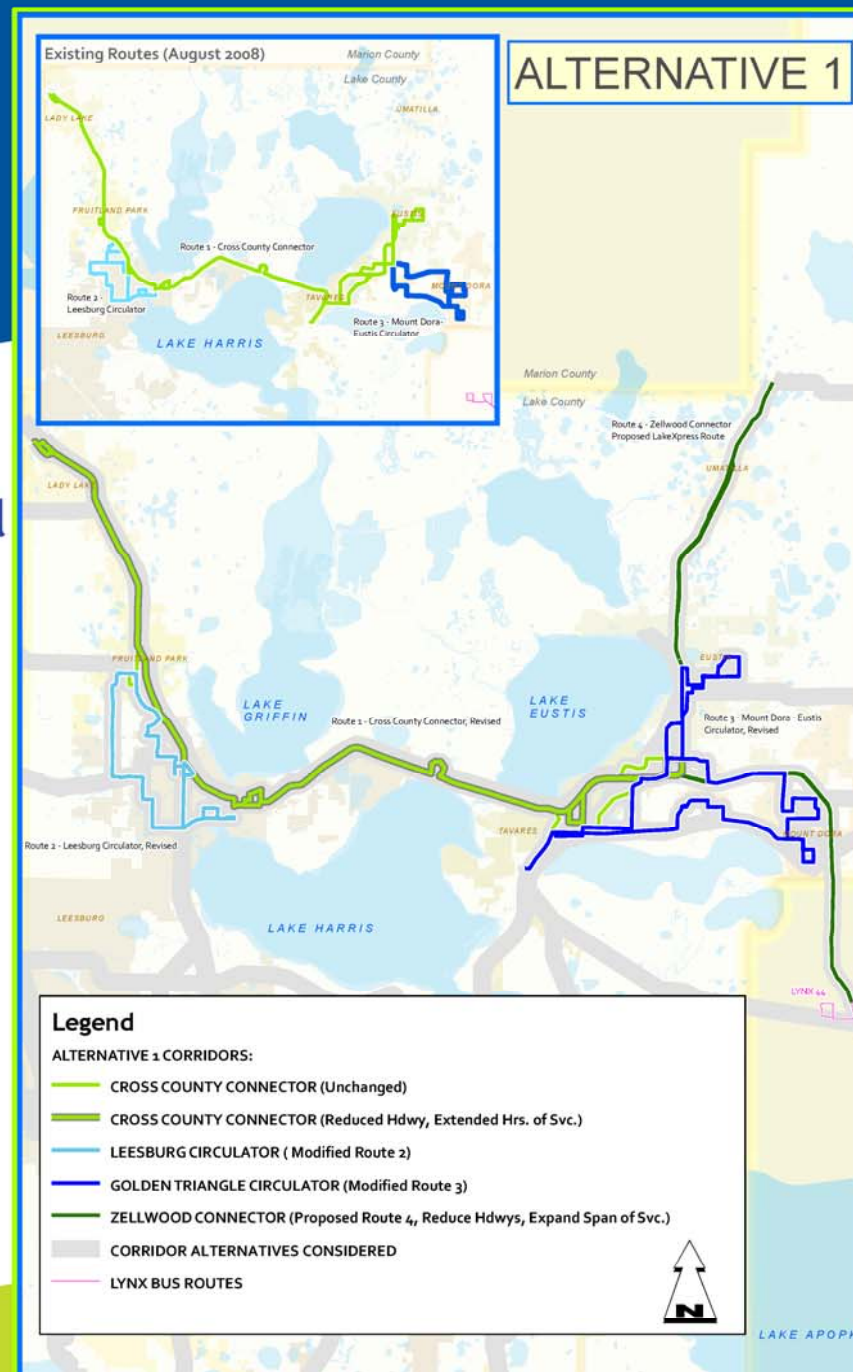
# Recommended Future Transit Service

Figure 8-12: Recommended Future Transit Service

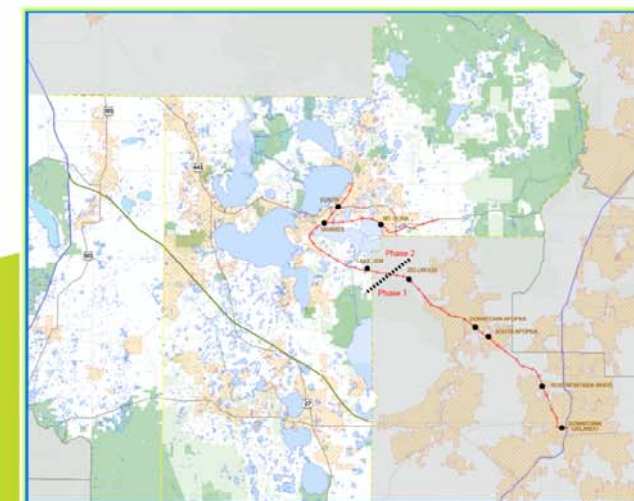
lakeXpress  
WilburSmith  
ASSOCIATES

## Recommended Service Plan Detail

Alternative	Rt Num	Start Year	Span of Service	Days Per Week
Cross County Connector	1	FY 2007/08	7:00 a.m. - 7:00 p.m.	5
Leesburg Circulator	2	FY 2007/08	7:00 a.m. - 7:00 p.m.	5
Mount Dora Circulator	3	FY 2008/09	7:00 a.m. - 7:00 p.m.	5
Zellwood Connector	4	FY 2009/10	7:00 a.m. - 7:00 p.m.	5
<b>Improve Existing Service - Cut Headways By Doubling the Number of Vehicles</b>				
a - Cross County Enhancement	1a	FY 2012/13	7:00 a.m. - 7:00 p.m.	5
2a - Leesburg Circulator Enhancement	2a Counterclockwise	FY 2012/13	7:00 a.m. - 7:00 p.m.	5
3a - Mount Dora Circulator Enhancement	3a Counterclockwise	FY 2012/13	7:00 a.m. - 7:00 p.m.	5
4a - Zellwood Connector Enhancement	4a	FY 2012/13	7:00 a.m. - 7:00 p.m.	5
<b>Enhance Existing Routes - Add 2 Hours (6:00 am to 8:00 pm)</b>				
b - Cross County Early/Late	1b	FY 2012/13	6:00 a.m. - 8:00 p.m.	5
2b - Leesburg Circulator Early/Late	2b	FY 2012/13	6:00 a.m. - 8:00 p.m.	5
3b - Mount Dora Circulator Early/Late	3b	FY 2012/13	6:00 a.m. - 8:00 p.m.	5
4b - Zellwood Connector Early/Late	4b	FY 2012/13	6:00 a.m. - 8:00 p.m.	5



## Northwest Commuter Rail Study and Implement



For additional information, please contact the Lake-Sumter Metropolitan Planning Organization at <http://www.lakesumtermpo.com>. You may also contact Mike Woods at 352-315-0170 x251 or via E-mail at [Woods@LakeSumterMPO.com](mailto:Woods@LakeSumterMPO.com).

# 2020 Transit Development Plan

## Section 9.0 Financial Plan

This section of the Transit Development Plan is incomplete and it should not be finalized until the public involvement process is completed. A detailed financial plan requires agreement regarding the selection of project alternatives. The selection of a preferred alternative have been based upon comments from the community, patrons, paratransit stakeholders, appointed officials, elected officials, and the results of the public involvement efforts. Accordingly, preliminary information regarding financial assumptions and available financial information is presented here so that it may be commented upon before the financial analysis is finalized.

Information in this section was obtained from *the Florida Department of Transportation's Resource Guide for Transit and Transit-Related Programs (2005)*, *the Guidebook for Start-Up Transit Agencies (2006)*, *the Local Government Financial Information Handbook (2006)*, as well as through a desktop analysis of various governmental websites and transportation-related publications. Options to minimize costs and financial management strategies are also included in this section.

### 9.1 Overview

LakeXpress is a relatively new system with limited historical data on financial operations, including ridership, fare box recovery, revenue sources, and operating costs. As such, financial planning efforts and financial projections through the FY 2020 will require the use of assumptions, projections based on limited experience, as well as benchmark comparisons. Since fixed-route service has a short history in Lake County, peer systems have been used as an appropriate transit benchmark to evaluate financial data projections particularly revenue projections from state and federal sources.

Based upon recent growth, it is also anticipated that the population of the urban area may exceed 200,000 by the 2010 U. S. Census. This is relevant for financial planning purposes since some state and federal funding sources currently used to fund Lake County Transit are for designated rural transit systems. For example, the urban areas with populations under 200,000 may use state public transportation operating assistance program (FTA Section 5307) funds for both capital and operating costs; whereas urbanized areas with over 200,000 in population, may use these state public transportation operating assistance program (FTA Section 5307) funds for capital costs only. Additionally, these funds are apportioned and flow directly to a designated recipient, which may require additional staff time and other resources.

## **9.2 Financial Analysis Methodology**

The purpose of this section is to summarize the available financial data and list the basic financial assumptions that have been used to make projections for approval by Lake County. These assumptions have been used to complete the cash flow analysis that has been presented in the *Final 2020 Lake County TDP*.

### **9.2.1 Available Financial Data**

Lake County Public Transportation Division has provided the following transit service and financial data for use in the financial analysis:

1. Revenue by source (FY 2007/2008 through FY 2009/2010);
2. Revenue by mode and purpose (FY 2007/2008 through FY 2009/2010);
3. Paratransit and fixed-route vehicle fleet inventory;
4. Existing ridership information by route (May 2007 – May 2008), including;
  - a. Actual/Scheduled Revenue Hours per Day;
  - b. Additional Platform Hours;
  - c. Actual/Scheduled Total Platform Hours;
  - d. Actual/Scheduled Revenue Miles;
  - e. Additional Platform Miles;
  - f. Total Platform Miles;
  - g. Ambulatory Passengers;
  - h. Wheelchair Passengers;
  - i. Total Passengers;
  - j. On Time Performance (compared to the 113 time points);
  - k. On Time Performance Percent;
  - l. Average Trips per Day;
  - m. Hourly Rate;
  - n. Service Days;
  - o. Average Trips per Revenue Hour;
  - p. Cost per Trip; and
  - q. Total Cost per Month.

Based upon the data collection efforts completed, the forgoing financial information has been made available for completing the 2008-2020 financial plan. Typically, historical data is used to determine these standards; however, LakeXpress is a new system with one full year of data for fixed-route bus service so comparisons to other systems have been required to supplement available financial data.

## 9.2.2 Peer Systems

For financial planning purposes, there are two key uses of performance and financial indicators from peer transit systems. First, understanding how a group of peer systems performed provides a benchmark to help us understand how Lake County is performing relative to comparably-sized systems. This comparison is completed for evaluation purposes and tells us how well we are doing. Second, financial data from peer systems provides a reasonable basis for financial projections for relatively inexperienced systems. This cost analysis helps us to determine if the new system is cost-effective and whether future revenues should be used for financial projection purposes. The 2005 TDP developed two lists of peer transit systems to be used for comparison purposes. For fixed route bus service, five (5) peer systems were identified for the peer analysis, as follows:

- Bay County Council on Aging (Bay Town Trolley);
- Ocala/Marion County MPO (SunTran);
- St. Lucie County Council on Aging (Treasure Coast Connector);
- Winter Haven Area Transit (WHAT); and
- Hernando Express (THE Bus).

It should be noted that St. John's County, Florida has recently made a transition from a rural to a small urban transit system. Because LakeXpress is a new system, financial performance data is not available for this analysis. However, future evaluations should consider including St. John's County as a peer system.

For the purposes of evaluating paratransit services and also making financial projections, the following seven (7) peer community transportation coordinators were selected because of their similar operating characteristics. The seven Florida peers CTC's included in the analysis are listed below and were used in the previous Lake County TDP because they were fairly similar to the Lake County Connection in terms of demographics, annual passenger trips, operating environment, organization type, and network type.

- Charlotte County (Charlotte County Transit Department);
- Citrus County (Citrus County Transit);
- Collier County (Collier County Board of County Commissioners);
- Indian River County (Indian River County Council on Aging);
- Marion County (Marion County Senior Services, Inc.);

- Pasco County (Pasco County Public Transportation); and
- St. Lucie County (St. Lucie Board of County Commissioners).

Similarities in these elements have not changed significantly since 2005 so the same systems were employed again; however, the peer comparison may need to change after 2011 based upon the urbanization of the service area and expansion of fixed-route bus service.

### 9.2.3 Forecasting Methodology

A combination of approaches has been used for forecasting. For Lake County Connection, a trend projection has been used for revenues and costs based on historic paratransit performance data for the past ten years compiled from the *Florida Commission for the Transportation Disadvantaged Annual Performance Reports* (see **Table 9-1**).

**Table 9-1: Lake County CTC Trend Analysis**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Passenger Trips	256,162	243,936	304,607	308,829	253,706	234,680	220,958	229,678	247,177	242,314
Vehicle Miles	1,796,789	2,369,733	2,188,706	2,384,390	2,236,095	2,275,338	2,115,811	1,730,652	2,060,641	2,362,523
Revenue Miles	1,424,367	1,589,572	1,507,559	1,606,415	1,705,272	1,735,315	1,649,860	1,283,006	1,937,089	2,022,152
Operating Expenses	\$1,873,883	\$2,038,413	\$2,295,887	\$2,295,887	\$3,297,384	\$2,962,469	\$3,282,757	\$3,761,421	\$4,645,370	\$5,515,813
Operating Revenues	\$1,705,339	\$2,248,688	\$2,248,244	\$2,248,244	\$2,786,544	\$3,581,304	\$3,402,148	\$3,734,931	\$4,347,603	\$5,515,813
Total Fleet	73	70	90	101	79	98	98	87	72	85

Source: Annual Performance Reports from 1998 to 2003, Florida Commission for the Transportation Disadvantaged.

Paratransit ridership was projected based upon a trend analysis. Lake County will continue to transition paratransit riders, as appropriate, to fixed-route service. As such, paratransit ridership has not been projected to grow rapidly over time. The paratransit trip projections are based on the historical trends with the growth in paratransit ridership of approximately 5–7 percent per year. Given the historical paratransit revenue data collected for transportation disadvantaged services in Lake County, the following approach was applied to estimate the future values of available paratransit revenues, by funding source. A linear trend line was applied to the total paratransit revenues for the timeframe spanning FY 1998 through FY 2010<sup>1</sup>, and that trend was then projected into the future through the financial plan time horizon (2020). Given the data provided by the Lake County Public Transportation Division, for FY2008 through FY 2010, which identified the source (i.e., federal, state, local, and other) and application (i.e., for either operating or capital expenditures) of total revenues, percentage calculations were conducted for

<sup>1</sup> Data from the Lake County Public Transportation Division (2007-2010) and Florida Commission for the Transportation Disadvantaged, Annual Performance Reports (1998-2007) were reviewed.

those three fiscal years for the operational component of total revenues, by source. Percentage calculations were then averaged across the given three years. It was then assumed that those relative percentages would remain constant throughout the future time horizon and, as such, those percentages were applied to the total revenue trend line projections for the purposes of estimating the possible future values of paratransit funding, by funding source and incorporated into the financial plan.

For LakeXpress, numerous factors including projected ridership have been difficult to project since this is a new fixed-route transit system. It is common for new fixed-route bus transit service to perform at below-average levels until they become well-known throughout the community for providing dependable service. The *2005 TDP* conducted a peer review analysis to identify performance standards for the LakeXpress system with the understanding that it would not be reasonable to target meeting peer standards until Year 3 when the system has had a chance to mature. As such, the *2020 TDP* will extrapolate data using both a trend and peer review analysis of existing transit services to identify reasonable assumptions to prepare the financial analysis. Some of the necessary information can be derived from the first year of service data provided by Lake County Public Transportation Division, as listed above.

LakeXpress began service in May 2007. As with most systems, the fiscal year begins in October. Therefore, first year data is available from May 2007 to September 2007, and October 2007 to May 2008. In order to compare an entire year of data for the purpose of this analysis, data from May 2007 to May 2008 was used determine LakeXpress performance results. The National Transit Database provides the validated source data for a peer analysis, with the most recent year available being FY 2006 (October 2005 to September 2006). It is important to note that these differing timeframes do not allow a direct comparison, particularly since outside factors such as rising gas prices may have affected the recent operating expenses as well as ridership for all of the peer transit agencies in this analysis.

A reasonableness check of the first year LakeXpress data was completed to determine whether the goals set in the *2005 TDP* are still attainable given the systems performance after one year and they seem to be reasonably attainable. With the implementation of LakeXpress service and the availability of Fiscal Year (FY) 2006 peer system data, it is beneficial to look at the peer group performance relative to actual LakeXpress performance, with the noted limitations regarding FY 2006 peer data. The LakeXpress data was compared to the norms of peer systems. Data used to compare LakeXpress performance included: (1) Operating Expenses per Revenue Hour; (2) Operating Expenses per Passenger Trip; (3) Passengers per Vehicle Revenue Mile; and (4) Passengers per Revenue Hour. Actual LakeXpress performance is consistent with the established goals; as such the Year 3 targets identified in the *2005 TDP* and the *2006 Transit Operations Plan* have been utilized for financial planning purposes.



## 9.2.4 Forecasting Assumptions

The following assumptions have been used to guide the financial analysis as acceptable transit alternatives are identified by the community and these financial projections will guide transit planning through the Year 2020 in the Lake~Sumter MPO planning area.

1. Population growth has been estimated consistent with the Bureau of Economic and Business Research (BEBR) forecasts (2005-2030).
2. Population growth forecasts have been allocated among traffic analysis zones (TAZ) using the 2006 population forecasts because they most closely reflect the BEBR's total county population growth rates for the planning horizon. This data has already been projected through the Year 2015 and is regionally approved.
3. Modest adjustments to socioeconomic data by Traffic Analysis Zone (TAZ) have been made by the Lake~Sumter MPO staff to reflect the future population growth within the population control totals set by the BEBR. These projections have taken into account the *How Shall We Grow Population Centers* and approved DRIs. Planned and pending DRIs have been considered but not incorporated into socioeconomic data projections since they are not yet approved.
4. Fixed-route ridership projections have been developed using the TBEST modeling tool approved by FDOT.
5. Paratransit ridership projections will use actual ridership for the current year and forecast future ridership based upon population growth.
6. An annual inflation rate of three and a half percent (3.5%) has been used for all constant costs to escalate forward through the planning period. A 3.5 percent growth rate was utilized for long-term projections to account for the rising cost of fuel over an extended time period. Typically, an escalation rate of three percent would be used over a long-term financial plan to account for fluctuations year over year and account for the anticipated level of development and growth in Lake County.
7. Based upon Lake County Public Transportation Division staff recommendations, a steady rate of farebox revenue was used starting at \$65,000 with escalation to account for inflation. The starting value of \$65,000 was recommended by Lake County Public Transportation Division Staff based upon recent fare box revenues.
8. Federal fund revenues are difficult to project particularly considering the national budget constraints on the horizon. Revenue for capital costs and capitalized maintenance costs have been projected based upon the experience of other transit system revenues.

9. State fund revenues are also difficult to project particularly considering the state budget constraints resulting from reduced gas consumption. Revenue for capital costs and capitalized maintenance costs have been projected based upon the experience of other transit system revenues.
10. Past trends for splitting the costs of new service have been utilized for projecting revenues.
11. Assumptions have been made regarding intermodal centers and their costs.
12. Revenue growth has been tied to ridership growth and an assumed inflation rate.
13. Administrative and marketing cost assumptions have been employed as proposed from staff, the previous TDP, and have been adjusted for inflation.

### ***9.3 Financial Data***

Based upon the proposed methodology and assumptions listed above, the following additional information has been provided by the Lake County Public Transportation Division to complete the financial analysis. Specifically, existing financial information has been provided regarding operating expenses, revenue sources, and fleet inventory.

#### **9.3.1 Overview of Revenue Sources**

Predicting future Federal, State, and local revenue sources is problematic. Financial forecasts are particularly difficult when the transit system is simultaneously adding new fixed-route bus service and transitioning from a rural transit system to a small urban system. Lake County's projected costs are increasing due to new services. The existing financial plan has relied very heavily on Federal and State operating subsidies and Lake County will no longer be eligible for many of these programs once its urbanized population increases over 200,000 persons. We have anticipated for financial planning purposes that the transportation management area will exceed 200,000 persons by FY 2012, once the 2010 U.S. Census data is released.

As such, this financial plan does not include any significant Federal and State operating grants after 2011. There are some sources operating revenue once Lake County has been recognized as a small urban system. This financial plan anticipates that Federal and State funding will be available principally for capital costs including vehicles, transit centers, and stops. Limited opportunities for operating costs have been anticipated from Job Access Reverse Commute (JARC), New Freedom funds, FDOT Transportation Corridors, and service development grants.

This section details existing and potential funding options for public transportation in Lake County, and is categorized into Federal, state, and local funding mechanisms. Information in this

section was obtained from The Florida Department of Transportation's *Resource Guide for Transit and Transit-Related Programs (2005)*, *the Guidebook for Start-Up Transit Agencies (2006)*, *the Local Government Financial Information Handbook (2006)*, as well as through a desktop analysis of various governmental websites and transportation-related publications. Options to minimize costs and financial management strategies are also included in this section.

A review of population estimates for Lake County over the timeframe of this TDP update indicate that the area is expected to change from a designation of rural to a definition of small urban. This increase in population is expected to impact funding sources currently utilized by the county, and new sources of funding have been needed to address this shortfall. A more detailed discussion of funding sources currently in use as well as potential sources is discussed in the following sections.

### **9.3.2 Federal Funding Sources**

Federal grant programs for highways and transit are authorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005, and are managed through the FTA. In most cases these federal grants require matching funds from state and/or local governments, although match requirements vary from program to program. Federal funding programs include:

- Section 5303 – Metropolitan Planning Program Funding for MPO
- Section 5307 – Urbanized Area Formula Grant
- Section 5309 – New Starts Program and Capital Investment Grants
- Section 5310 – Elderly and Disabled Grant Program
- Section 5311 – Non-Urbanized Area Formula Grants\*
- Section 5311 – Intercity Bus Service
- Section 5316 - Job Access and Reverse Commute Programs
- Section 5317 - The New Freedom Initiative

A listing of existing Joint Participation Agreements for existing services provided by LakeXpress has been included for future reference in **Appendix L**.

#### *9.3.2.1 Metropolitan Planning Program Funding*

The Metropolitan Planning Program (**49 U.S.C §5303**) helps MPOs to carry out the transportation planning process in compliance with Federal and State requirements. FTA Section 5303 funds may be used by an MPO to prepare their Long Range Transportation Plans and financially feasible Transportation Improvement Programs (TIPs). These plans are required to

obtain Federal capital and Urbanized Area Formula funds. FTA also allocates Section 5303 funds based to the states with 80 percent of the funds distributed to urbanized areas based on population. These funds are then sub-allocated by states to MPOs by a formula that considers each MPOs urbanized area population and their individual planning needs. The other 20 percent is directed to highly urbanized areas with one million or more population.

#### *9.3.2.2 Urbanized Area Formula Program*

FTA's major assistance program is the Section 5307 program which is a formula grant program for urbanized areas providing capital, operating, and planning assistance for mass transportation. In areas with populations over 200,000, Section 5307 funds cannot be used for operating expenses, with the exception of certain eligible maintenance expenses as defined in the National Transit Database. For these areas, the formula is based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guideway revenue vehicle miles, fixed guideway route miles, population, and population density. For urbanized areas over 200,000 in population, funds flow directly to the designated recipient. Historically, capital assistance has been provided with the Federal share at 80 percent.

#### *9.3.2.3 Clean Fuels Formula Grant Program*

This discretionary grant program (**49 U.S.C. §5308**) is designed to encourage the use of advanced bus technologies such as low-emission vehicles and emerging clean-fuel technologies. The program assists with the purchase or lease of low emissions buses and related equipment, modification of maintenance facilities, construction of alternative fuel facilities, and assistance with the utilization of bio-diesel fuel. Eligible recipients are those urbanized areas with a population greater than 200,000 designated as a clean air non-attainment or maintenance area for ozone or carbon monoxide. Funds are allocated based on the number of vehicles in the bus fleet and the weighted number of bus passenger miles by severity of non-attainment. The East Central Florida region is on the brink of reaching the non-attainment designation. These highly competitive funds have principally been made available to projects in the Bus and Bus Facilities program (match of 80%) under the Capital Investment Grants program.

#### *9.3.2.4 Transit Capital Investment Program*

The Transit Capital Investment Program (**49 U.S.C. §5309**) provides capital funds for: bus and bus related projects, fixed guideway modernization, and new fixed guideway systems "New Starts" (projects requiring more than \$75 million in federal assistance). There are three classes of New Starts projects – Very Small Starts, Small Starts, and New Starts. Depending upon the anticipated costs of the New Starts project, the complexity of the required Alternatives Analysis varies. It is anticipated that the Northwest Commuter Rail project meet the Small Starts project

eligibility criteria (a new tier for projects seeking less than \$75 million from section 5309 and a total estimated net capital cost of less than \$250 million). Eligible recipients for capital investment funds are public bodies and funds are allocated on a discretionary basis. By FY 2009, 23.5 percent will be allocated to bus and bus facilities, 36 percent to fixed guideway modernization, and 40.5 percent to New Starts.

#### *9.3.2.5 Elderly and Persons with Disabilities*

Through the Section 5310 program, formula funding is provided for distribution to private non-profit groups for the provision of elderly and ADA-transportation services. Funds are allocated by a formula that considers the number of elderly individuals and individuals with disabilities served as well as whether the project is derived from a locally developed coordinated public transit/human service transportation plan. Eligible expenses include capital expenses for vehicle purchases and transportation services provided under contract, lease, or other arrangements. No more than 10 percent of the amounts apportioned can be used to administer, plan and provide technical assistance. The federal share for projects is 80 percent of the project's net capital cost.

#### *9.3.2.6 Non-Urbanized Area Formula*

Lake County will no longer be eligible for Non-Urbanized Area Formula (*49 U.S.C. § 5311*) Section 5311 funds after 2011. Funds are allocated to non-urbanized areas with a population of less than 50,000 (based on U.S. Census figures) for capital, operating and administrative purposes.

#### *9.3.2.7 Job Access Reverse Commute (JARC) and New Freedom Funds*

JARC (*23 U.S.C. §5316*) and New Freedom (*49 USC §5317*) funds may be used for planning, capital or operating costs of providing access to jobs, or for services and facilities that improve mobility for persons with disabilities. The JARC and New Freedom Programs are authorized under the provisions set forth in the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was enacted on August 10, 2005. These provisions authorize the U.S. Secretary of Transportation to apportion funds to each state for grants to these programs. SAFETEA-LU also includes new planning requirements for the JARC and New Freedom Programs, requiring that projects funded through these programs "must be derived from a locally developed, coordinated public transit-human services transportation plan." Beginning in FY 2007, projects selected for funding under the JARC and New Freedom projects must be derived from the adopted Community Transportation Coordinator's plan, in Lake County, the TDSP. These two programs can be used to meet the mobility needs and options identified for disabled, aging, and low-income persons living in Lake County. There are also opportunities to apply for New Freedom from FDOT for service enhancements or urban

corridor planning as well as other state grants. Additional data and suggestions from staff were also used to predict levels and sources of anticipated federal, state, and local revenues devoted to fixed-route and paratransit operations.

#### *9.3.2.8 Surface Transportation Program*

The Surface Transportation Program (STP) offers agencies the greatest flexibility. These program funds may be used for public transportation capital improvements for buses and bus facilities, car and vanpool projects, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intra-city bus terminals and bus facilities. These funds may also be used for transportation planning, wetland mitigation, transit research, and environmental analysis. Other eligible projects include safety and transportation control measures. STP funds are made available to MPOs containing urbanized areas over 200,000 in population.

#### *9.3.2.9 Congestion Mitigation and Air Quality Improvement Program*

This program is aimed at improving the nation's air quality and managing congestion in designated non-attainment air quality areas. Eligible activities include transit system capital expansion and improvements that are projected to realize an increase in ridership, travel demand management strategies, shared ride services, pedestrian/ bicycle facilities, and promotional activities that encourage bicycle commuting. Projects that reduce emissions are funded in air quality non-attainment and maintenance areas and funds are apportioned based on a formula that considers the severity of local air quality problems.

### **9.3.3 State Funding Sources**

The FDOT has a number of programs that provide funding and matching grants to applicable MPOs and local governments. State funds are distributed through the Joint Participation Agreement, an agreement that establishes public transit projects and defines the scope, budget, and legal provisions for receiving state funds. Twelve (12) public transit grant programs have been identified and are briefly described below. State funding programs include:

- State Block Grants
- Transit Corridor Program
- Public Transit Service Development Program
- Commuter Assistance Program
- Park-and-Ride Lot Program
- New Starts Transit Program

- Transportation Regional Incentive Program
- Intermodal Development Program
- County Incentive Grant Program
- Toll Revenue Credit Program
- Rural Economic Development Initiative (REDI) Waiver

State Block Grants (Section 341.052, Florida Statutes)

Public Transit Block Grants provide state funding to public transit agencies and Community Transit Coordinators (CTC's) eligible for federal funding through FTA Sections 5307 and 5311 programs. These grants may be used to fund up to fifty percent of applicable public transit service costs, and may be applied to both capital and operating costs. All projects must be consistent with approved comprehensive plans.

Transit Corridor Program (Chapter 341, Florida Statutes)

Projects identified in a TDP, Congestion Management System Plan, or other formal public agency study that help to reduce congestion/address mobility issues within a corridor are eligible for state funding under the Transit Corridor Program. These funds are annually allocated under the discretion of the FDOT Central Office for both capital and operating costs, and priority is given to existing projects and projects determined by the FDOT to be of regional or statewide significance. Projects are generally funded at fifty percent of the non-federal share, meaning that local funding must be available for at least twenty-five percent of the project cost. Additional funding of up to one hundred percent is available for projects of regional or statewide significance.

Public Transit Service Development Program (Chapter 341, Florida Statutes)

Projects or initiatives within the first three (3) years of inception and which are submitted by the applicable FDOT district office in a program of eligible Service Development projects may be eligible for this type of funding. The purpose of this program is to fund projects that may improve current public transit services, and may apply to capital costs for new projects as well as operating costs for enacting new techniques or service. Projects involving the use of new technologies, services, routes, or vehicle frequencies as well as initiatives to improve the operations, maintenance, and marketing of public transit services may be selected for funding.

### Commuter Assistance Program (Chapter 341, Florida Statutes)

This program was established to encourage public/private partnerships between governmental agencies and employers or individuals to increase vehicle occupancy. Services that provide carpools, vanpools, bus pools, express bus service, subscription transit service, group taxis, and heavy/light rail may be applicable for funding from this program. In addition, activities and strategies that alleviate transportation demand on systems such as employee trip reduction planning, alternative work hour programs (e.g. telecommuting or compressed work weeks), parking management, and bicycle/pedestrian programs may be eligible for funding.

### Park-and-Ride Lot Program

This program provides funding for the construction of park and ride lots, the promotion of such lots, and the monitoring of their usage, and is an effort to reduce single-occupant vehicular travel. Projects must be consistent with state guidelines for park and ride lot planning, and funds may be requested by filing a project proposal with the appropriate FDOT district office for prioritization and submittal to the FDOT Central Office. Funding is available for up to fifty percent of the non-federal share for capital projects. Depending upon the benefit to the FDOT, the local share may be provided in donated land value or in-kind services as well as through traditional cash provisions.

### New Starts Transit Program (Senate Bill 360, 2005 Growth Management Act Update)

This program assists local governments in developing and constructing fixed guideway and bus rapid transit projects, and also serves to leverage state funds to secure federal New Starts Program funding. Capital costs that support the state's Strategic Intermodal System (SIS), that are included in local plans, have political support, and that have a dedicated funding commitment may be considered for this type of funding. Projects must adhere to federal funding guidelines (Section 5309), and state funding is limited to fifty percent of the non-federal share of a project. Restrictions for fixed guideway projects as well as projects receiving other state funds are placed on this funding mechanism.

### Transportation Regional Incentive Program (TRIP)

The purpose of this match funding program is to promote regional transportation planning by providing funding for projects identified and prioritized as regionally significant by regional partners. Regional partners may include two or more contiguous MPOs, one or more MPOs and one or more counties that are not part of an MPO, multi-regional transportation authorities, or MPOs comprised of three (3) or more counties, and such partners must sign an interlocal agreement in accordance with TRIP guidelines. In addition to being designated regionally significant, eligible projects must be identified in local capital improvement programs or long-



term concurrency management systems, be consistent with the SIS, and have a commitment of local, regional or private funds. Funding is available to pay for fifty percent of project costs, or up to fifty percent of the nonfederal share of project costs for public transportation facility projects.

*Intermodal Development Program (Section 341.53, Florida Statutes)*

This program funds capital investments in projects that facilitate the movement of people and goods through intermodal or multimodal means. Eligible entities include cities, counties, transit agencies, ports, airports, seaports, rail authorities, local governments, as well as non-profit agencies recognized by state agencies as intermodal service providers. Projects must be consistent with local comprehensive plans, and may be used for fixed-guideway transportation systems, access to seaports, airports or other transportation terminals, as well as construction of intermodal/multimodal terminals.

*County Incentive Grant Program (Chapter 339.2817, Florida Statutes)*

Improvements to transportation facilities (including transit) that relieve congestion to the State Intermodal System (SIS) are eligible for funding through this program. Eligible projects are ones that:

- Improve mobility on the SIS;
- Encourage, enhance, or create economic benefits;
- Foster innovative public-private partnerships;
- Maintain or protect the environment;
- Enhance intermodalism and safety;
- Implement new technologies to enhance project efficiency; or
- Advance other projects.

Counties as well as municipalities are eligible to receive these funds, and governmental bodies may apply annually to the appropriate FDOT district office for ranking and selection into the FDOT Adopted Work Program.

*Toll Revenue Credit Program (Title 23, U.S.C. 120(j)(1))*

This program allows toll revenue credits to be used as a soft match on eligible federal transit capital projects. Annually, toll revenue credit availability and approval to use toll revenue for public transit capital projects have been determined by the State Public Transportation and Modal Administrator.

### REDI Waiver (Section 288.06561, Florida Statutes)

This program allows for a waiver or reduction in matching requirements for rural and economically distressed communities. This waiver provision is available for counties and communities that meet the statutory definition of “rural” and which meet three criteria of “economic distress” as defined in Sections 288.0656(2)(a) and 288.0656(2)(b). The approval of this type of waiver does not increase the amount of state funds that have been made available for a project.

### **9.3.4 Innovative Funding Approaches**

In addition to funding from Federal, State, and local sources, cost reduction and cash management techniques have been utilized by Lake County to manage costs.

#### In-Kind or Other Soft Match

In limited circumstances, local governments, and other agencies may use contributed services as a soft match for projects. These matches must be approved by the FDOT district financial office, and may include operating costs such as office space, staff services, and contract expenses.

#### State Infrastructure Bank (SIB) Loan

Offers zero or low interest loans from the state for all or part of a project.

#### Pool Purchases

Allows for the pool purchasing of buses and other capital equipment. In Florida, agencies can decide to use or not use the assistance of the Florida Public Transit Association (FPTA) in such purchases. Benefits of pool purchasing include low unit costs for buying in bulk and less paperwork.

#### Lease Using FTA Funding

Transit agencies may use federal funds to lease rather than purchase capital equipment, including county office equipment.

#### Grant Anticipation Revenue Vehicle (GARVEE) Bonds

This is a debt financing instrument for transit agencies to issue bonds secured by future federal revenues. This offers a new way to generate up front capital on the basis of future federal funds. Short-term GARVEEs are backed by future obligations of federal-aid funds for a term that expands beyond the current authorization.

### Cross Border Leases

Applicable to large transactions related to capital costs. A cross border lease is a mechanism that permits investors in a foreign country to buy assets used in the United States, then lease them to an American entity, and receive tax benefits under the laws of the home country.

### Leveraged Lease, Sale Leaseback, or Similar Domestic Leases

Involves the sale and lease back of assets belonging to tax-exempt entities that cannot ordinarily benefit from depreciation of capital assets. Sale-lease backs are leveraged leases where equity participation is about twenty-five percent. Equity participants can include foreign investor consortia, U.S. banks, and subsidiaries of foreign banks.

### Taxable Debt

Taxable debt can be used for capital or operating costs of projects. If federal or state restrictions make GARVEE bonds or tax-exempt COPs unattractive, transit agencies or other governmental entities may issue taxable debt.

### Turnkey Management

Refers to a transit agency contracting with a third-party to design and build (and in some cases operate and maintain) a transit facility. The simplest turnkey contract is called “Build/Transfer” while “Build/Operate/Transfer” is more complex. This is mostly applicable to major capital projects; however, turnkey management of operations is often an option for small transit systems.

### Certificates of Participation

May be issued by state-authorized tax-exempt finance corporations. Proceeds may be used to purchase transit assets, which are then leased to a transit agency. The transit agency makes lease payments using a combination of federal, state, and local revenue, and those lease payments are used by the finance corporation to make the bond payments to bond holders.

### Delayed Local Match

FTA allows local authorities to defer payment of its local share of transit projects. Local governments may draw down 100% of the eligible 80% of a project cost and cover the local share of the costs at the end of the project. The construction period can be financed with private participation and during this time local funds can be banked or pledged as additional security for construction period financing.

### 9.3.5 Local Funding Options

Local funding is used for two main purposes in funding transit. First, it is used to meet Federal requirements for local matching where state sources are not available. Secondly, local funding sources are used for operating costs because Federal and State funding rules often only pay for initial capital costs associated with transit. A number of local funding sources and strategies have been identified for consideration by Lake County in funding public transportation.

A list of potential local funding sources has been included in **Table 9-22**.

**Table 9-2: Local Funding Sources**

Source/Technique	Description
Ad Valorem or Property Taxes	This tax may be used to fund transportation in two ways: either through the general fund or through a dedicated revenue source by a transit authority. In many cases, this is the largest source of local revenue.
Multimodal Transportation Concurrency Districts	Local governments may create a multimodal transportation district in their comprehensive plan and land development code. Concurrency reviews occur during site plan review and fees are paid toward improvements identified in the capital improvements element (CIE) and are not required to be proximate to the development. Impact fees are paid toward CIE projects within the MMTD.
Municipal Service Taxing Unit (MSTU)	This tax may be established to use property taxes specifically for public transportation purpose and area. Service area may include both unincorporated and incorporated municipalities. The millage collected does not count against a county's general millage cap (10 mills).
Municipal Revenue	Incorporated municipalities may contribute directly to the transit system, usually for specific services within the municipality.
Fare box Revenue	Generated based upon the fare policy undertaken by the transit system.
Local Option Sales Taxes	Florida counties have the option to levy this tax; however, it requires a county-wide referendum. This is a stable source of funding. Proceeds are reduced as a result of administrative processing costs.
Local Option Gas Tax	Florida counties have the option to levy local option gas taxes to fund transportation. There are three available local option gas taxes: First Local Option (six cents), Second Local Option (five cents), and Ninth Cent Fuel Tax (additional one cent per gallon).

**Table 9-2: Local Funding Sources**

<b>Source/Technique</b>	<b>Description</b>
Transit Impact Fees	Places a portion of transit costs onto development; fee determined by the impact the development has on an area.
Bus Advertising	Advertising is sold for display on buses
Joint Development of Transit Assets	For capital projects only; options include selling property as an asset for non-transit use (requires return of Federal share), leasing property for a non-interfering use and retaining the proceeds, or building transit-oriented development on a property and retaining the proceeds.
Property Tax Transfer or Swap	Program that allows the transfer of FTA interest from one property to another to allow for private development or other use of property.
Special Tax Districts	Set up when a particular transportation project will benefit a specific area. Tax may be ad-valorem or based upon front footage of the property.
Tax Incremental Financing	May be used when transit improvements raise the property values in an area. Additional property taxes raised are used to fund improvements.
Station Concessions	Revenue generated from concession sales at transit facilities.
Private Contributions/Fees	Funds received from commercial businesses, associations, and/or charitable organizations.
Leasing Right of Way	Leasing Right-of-Way to a private company such as a utility or telecommunications provider for expansion of network service areas.

A combination of several of the local funding strategies listed above will need to be employed to implement new transit service corridors and enhancements to existing services. Many local governments provide some levels of transit funding from general revenue; however, the best approach is to identify a dedicated funding source for transit. A number of the dedicated funding sources will require a referendum prior to implementation. These include special tax districts, local option sales taxes and surtaxes such as the rental car surcharge. In addition, the Florida Statutes would have to be modified for Lake County to be able to use the Charter County Surtax. A number of other revenue sources such as fare box recovery, station concessions, and advertising revenue would represent a very small component of the cost of providing transit. Just the same, the sources could be developed into more significant revenue over time. For example, LYNX has generated significant revenue from advertising wraps provided on their buses. The

three most significant potential revenue sources are developer contributions, multimodal transportation concurrency, and transit impact fees. Within a year, the Comprehensive Plan and Land Development Code for a local jurisdiction could be amended to include the appropriate language. Three other local government revenue sources should also be considered: (1) Tax Increment Financing; (2) Municipal Services Benefit Unit; and (3) Station Concessions. With respect to Tax Increment Financing (TIF), there are several criteria that must be met. The proposed improvement must benefit the TIF District and be identified in the Community Redevelopment Area (CRA) plan for improvements. The operating costs are eligible if the proposed improvement is located completely within the CRA. There are two types of municipal units – Municipal Services Benefit Unit (MSBU) and Municipal Service Taxing Unit (MSTU). These are similar financing tools. The MSBU is often recommended over the MSTU since it is not a tax. Station concessions make sense in Lake County since a number of new stops and stations will be built to support new transit services. The concept typically involves offering some level of on-site concierge services to transit patrons. Services may include express mail, dry cleaning, car service, and reservations. Additionally, many systems lease out space at park-and-ride locations or stations for coffee shops, new stands, and other small services.

### 9.3.6 Expenditures

#### 9.3.6.1 Operating Expenses

The factors included in operating expenses were identified in the previous TDP. Staff has confirmed the factors covered by operating expenses (cost components of the hourly cost) and these costs are shown in **Table 9-3**.

**Table 9-3: LakeXpress Operating Expenses**

<i>Projected M. V. cost per revenue hour</i>	\$53.58
<i>Estimated county maintenance cost per revenue hour</i>	<i>included above</i>
<i>Cost of fuel per revenue hour</i>	\$9.06
<b>Total Operating Cost per Hour</b>	<b>\$62.64</b>
<i>(1) The M. V. Cost per revenue hour is an estimated rate based on pending contract changes. The estimated county maintenance cost per hour is based on current county maintenance costs for similar service.</i>	
<i>(2) The current contract rates and service delivery type (from complete brokerage including maintenance to complete brokerage with county providing maintenance is being finalized). The change should take place 10/1/08. The estimated maintenance cost would be about \$12 per hour per the 2005 TDP estimate. The M.V. hourly rate without maintenance costs is \$38.00.</i>	

*Source: Lake County Public Transportation Division, July 2008.*

Staff has provided a breakdown of all operating cost components such as: maintenance schedules; maintenance costs; operators (one operator per 1,500 revenue hours); annual miles traveled per bus; annual fuel consumption (approximately \$ 187,200 per year); and advertising costs. Total operating expenses have been evaluated in terms of passenger trips, vehicle miles, and driver hours. One key aspect of transit operating expenses is fuel. Accordingly, it is important to note that Lake County uses a fuel contract to purchase fuel at controlled prices.

The cost for future LakeXpress fixed-route and express bus services was estimated by calculating the annual operating hours and multiplying the annual operating hours by the Contract Rate used by Lake County (see **Table 9-3**). Wages, rates, and staffing requirements are included within the M. V. contract hourly rate. As such, future wage rates will only need to be adjusted for Lake County employees. Depending on the final contract negotiations, future maintenance staff projections may need to be developed. For administrative County staff, wages have been adjusted to reflect specific cost-of-living trends affecting national economic conditions.

#### *9.3.6.2 Staffing Requirements*

Regarding staffing requirements, staff confirmed specific staffing requirements for the LakeXpress fixed-route bus service and paratransit services that included the estimated number of operators, maintenance, and administrative employees needed to operate the service. Ratios of employees of various types to revenue hours were compared based upon average rates for similar systems with peak vehicle requirements between one and nine vehicles. It has been estimated that one operator per 1,500 revenue hours, one vehicle maintenance position per 8,000 revenue hours, and one administration position per every 20,000 revenue hours would be required. Lake County Public Transportation staff has confirmed that these ratios are appropriate and should be used for future service projections and they have been incorporated into the cost estimates.

#### *9.3.6.3 Capital Acquisition Plan*

This capital acquisition plan includes an evaluation of the need for transit vehicles to maintain the fixed-route fleet (before enhancements), the need for transit vehicles and equipment to maintain paratransit services, and new vehicles and stops to enhance or add transit services. Lake County Public Transportation Division Staff identified the need for vehicles to maintain the current fleet. An updated vehicle inventory specifying the type and age of the fleet has been provided by Lake County Public Transportation Division staff. There are a total of 56 County-owned and 21 M.V. Transportation owned vehicles providing fixed-route and paratransit trips (or 77 vehicles including supervisor vehicles, vans, mini-buses, and buses). Of these, 35 vehicles or 63 percent of the total County-owned vehicles are reported as being in excellent shape. Fourteen

vehicles or 25 percent of the total County-owned vehicles are reported as being in poor condition. Two (2) vehicles are over ten years old. A total of 38 vehicles, or 39 percent of the total vehicles, are wheelchair-lift equipped. Five vehicles, or five percent of the total vehicles, are stretcher equipped. For the purposes of financial planning, vehicle fleet replacement will occur based upon condition, useful life (10 years), and funding availability for buses, mini-buses, supervisor vehicles, paratransit vehicles, and vans.

**Table 9-4: LakeXpress Vehicle Data**

<b>LakeXpress Fixed-Route Bus Service Vehicle Fleet</b>					
<i>Vehicle</i>	<i>Quantity</i>	<i>Estimated Service Life (Years)</i>	<i>Passenger Capacity, Seated Only</i>	<i>Passenger Capacity, Seated and Standing</i>	<i>Unit Cost</i>
<i>El Dorado</i>	3	10	29	14	\$270,000.00
<i>Blue Bird</i>	5	10	24	14	\$260,000.00
<i>International (Spare Vehicles)</i>	2	10	24	14	\$130,000.00
<i>Two supervisor vehicles (3 years service and \$40,000) cover all services provided by Lake County Public Transportation Division</i>					
<i>Source: Lake County Public Transit Division, 2008</i>					

**Table 9-5: LakeXpress Replacement Schedule**

<b>LakeXpress Fixed-Route Bus Service Vehicle Fleet Replacement Schedule</b>					
<i>Vehicle</i>	<i>Quantity</i>	<i>Year Purchased</i>	<i>Estimated Service Life (Years)</i>	<i>Replacement Schedule</i>	<i>Unit Cost (2008\$)</i>
<i>International (Spare Vehicles)</i>	1	<i>FY 2005/FY 2006</i>	10	<i>FY 2015/2016</i>	\$130,000.00
<i>International (Spare Vehicles)</i>	1	<i>FY 2006/FY 2007</i>	10	<i>FY 2016/2017</i>	\$130,000.00
<i>Blue Bird</i>	2	<i>FY 2007/FY 2008</i>	10	<i>FY 2017/2018</i>	\$260,000.00
<i>El Dorado</i>	1	<i>FY 2008/FY 2009</i>	10	<i>FY 2018/2019</i>	\$270,000.00
<i>Blue Bird</i>	3	<i>FY 2008/FY 2009</i>	10	<i>FY 2018/2019</i>	\$260,000.00
<i>El Dorado</i>	2	<i>FY 2009/FY 2010</i>	10	<i>FY 2019/2020</i>	\$270,000.00
<i>Source: Lake County Public Transit Division, 2008</i>					



Assumptions regarding scheduled vehicle replacement will reflect the vehicles identified in the transit portion of the FDOT work program and projected needs derived from the fleet inventory reflected in **Table 9-6** and **Table 9-7**.

**Table 9-6: Paratransit Fleet Vehicle Inventory**

FDOT ID	Year of Vehicle	Age (Years)	Service	Vehicle Type	Manufacturer	Model	Seating Capacity	Standing Capacity	Fuel Type	Cost
185848	1996	12	Paratransit	Bus	Ford	E450	26	0		\$ 48,000.00
BCC	1996	12	Paratransit	Bus	Ford	E450	15	0	Unleaded	\$ 9,500.00
185859	1998	10	Paratransit	Bus	Ford	E450	25	0	Diesel	\$ 48,951.00
185861	1998	10	Paratransit	Bus	Ford	E450	15	0	Diesel	\$ 44,182.00
185864	1998	10	Paratransit	Bus	Ford	E450	19	0	Diesel	\$ 44,182.00
185865	1998	10	Paratransit	Bus	Ford	E450	19	0	Diesel	\$ 44,182.00
185860	1998	10	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 44,182.00
185863	1998	10	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 44,182.00
92550	1999	9	Paratransit	Bus	Ford	E450	19	0	Diesel	\$ 45,397.00
92553	1999	9	Paratransit	Bus	Ford	E450	15	0	Diesel	\$ 45,397.00
92549	1999	9	Paratransit	Van	Ford	E450	25	0	Diesel	\$ 45,397.00
92551	1999	9	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 45,397.00
92552	1999	9	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 45,397.00
92554	1999	9	Paratransit	Van	Ford	E450	15	0	Diesel	\$ 45,397.00
93520	2003	5	Paratransit	Bus	Ford	E350	13	0	Unleaded	\$ 40,429.80
93519	2003	5	Paratransit	Bus	Ford	E350	13	0	Unleaded	\$ 40,429.80
CTD-1	2003	5	Paratransit	Bus	Ford	E450	15	0	Unleaded	\$ 50,910.00
93518	2003	6	Paratransit	Mini Bus	Ford	E450	15	0	Diesel	\$ 53,907.00
93525	2003	5	Paratransit	Mini Bus	Ford	E450	15	0	Diesel	\$ 54,178.20
93524	2003	5	Paratransit	Mini Bus	Ford	E450	15	0	Diesel	\$ 54,178.20
93523	2003	5	Paratransit	Mini Bus	Ford	E450	15	0	Diesel	\$ 54,178.20
90502	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00
90503	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00
90504	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00
90505	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00
90506	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00
90507	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,425.00
90508	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,425.00
90509	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,425.00
90510	2005	3	Paratransit	Automobile	Chevrolet	Impala	5	0	Unleaded	\$ 14,245.00
CTD-2	2005	4	Paratransit	Bus	Ford	E450	15	0	Diesel	\$ 62,538.00
93574	2005	3	Paratransit	Bus	Ford	E350	12	0	Diesel	\$ 51,878.00
93575	2005	3	Paratransit	Bus	Ford	E350	12	0	Unleaded	\$ 44,774.00
93580	2005	3	Paratransit	Bus	Ford	E350	12	0	Unleaded	\$ 44,774.00
93581	2005	3	Paratransit	Bus	Ford	E450	15	0	Unleaded	\$ 49,859.00
93582	2005	3	Paratransit	Bus	Ford	E450	15	0	Unleaded	\$ 49,859.00
90514	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00
90515	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00
90516	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00
90517	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00
90518	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00
90513	2005	3	Paratransit	Bus	Ford	E350	9	0	Unleaded	\$ 46,805.00
FTA-1	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00
FTA-2	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00
FTA-3	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00
FTA-4	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00
FTA-5	2006	2	Fixed Route	Bus	Blue Bird	Ultra F	24	16	Diesel	\$ 246,300.00
90539	2006	2	Paratransit	Bus	Chevrolet	3500	9	0	Unleaded	\$ 50,990.00
CTD-3	2006	2	Paratransit	Bus	Ford	E450	18	0	Unleaded	\$ 54,260.00
90564	2006	2	Fixed Route	Bus	International	VT365	24	16	Diesel	\$ 137,565.00
CTD-4	2007	1	Paratransit	Bus	Chevrolet	E4500	15	0	Diesel	\$ 70,438.00

**Table 9-7: Contractor-Owned Fleet Vehicle Inventory**

Year of Vehicle	Age (Years)	Service	Vehicle Type	Manufacturer	Model	Seating Capacity
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
1997	11	Paratransit	Bus	Eldorado	E450	19
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9
2002	6	Paratransit	Bus	Ford	E350	9

The following vehicle replacement needs have been anticipated in the detailed financial plan:

- The number of replacement paratransit minivans and minibuses to maintain the current level of paratransit service in Lake County.
- The number of replacement supervisors needed over the ten-year period.
- The number of fixed-route replacement vehicles over the ten year period.
- Methods and assumptions used to project the number of vehicles required to implement new services such as the Zellwood Connector, if different.

Based upon the review of the fleet inventory age and condition, the financial plan includes expenditures for the following vehicle replacements, as summarized in **Table 9-8**.

**Table 9-8: Vehicle Replacement Schedule**

<b>Vehicle Replacement Costs</b>			
<b>Replacement Year</b>	<b>FY</b>	<b>Fixed Route</b>	<b>Paratransit</b>
FY 2008/ 2009	2009	\$52,000.00	\$ 272,382.00
FY 2009/2010	2010	\$12,000.00	\$ 348,211.20
FY 2010/2011	2011	\$403,500.00	\$0.00
FY 2011/2012	2012	\$142,000.00	\$0.00
FY 2012/2013	2013	\$272,000.00	\$0.00
FY 2013/2014	2014	\$282,000.00	\$ 348,211.20
FY 2014/2015	2015	\$272,000.00	\$ 713,257.00
FY 2015/2016	2016	\$282,000.00	\$ 1,474,315.00
FY 2016/2017	2017	\$12,000.00	\$ 437,290.00
FY 2017/2018	2018	\$12,000.00	\$0.00
FY 2018/2019	2019	\$12,000.00	\$0.00
FY 2019/2020	2020	\$12,000.00	\$0.00

*Note: Due to the number of vehicles added during the FY 2011/2012, a number of replacement vehicles should be anticipated in FY 2020/2021.*

### 9.3.7 Additional Capital Costs and Improvements

The need for future transit stops as well as intermodal and administrative offices was also evaluated. Each of the alternatives includes improvements to the Clermont Park-and-Ride which is already at capacity for parking. Alternative 2 includes two additional park-and-ride locations where future LakeXpress patrons will be able to carpool or use future LakeXpress services. Alternative 3 represents a significant investment in future park-and-ride locations to facilitate additional ridership and associated parking needs. Additional capital costs anticipated include the costs associated with the following transportation improvements are identified in **Table 9-9**.

**Table 9-9: Projected Park-and-Ride Costs**

Alternative	Description	Start Year (YOE)	Total Capital Costs
1	Improvements to US 27/ SR 50 Clermont PNR	FY 2011/12	\$ 10,000,000
2	Improvements to US 27/ SR 50 Clermont PNR	FY 2011/12	\$ 10,000,000
	Park-and-Ride at US 19 South of Turnpike	FY 2012/13	\$ 500,000
	Park-and-Ride #3	FY 2014/15	\$ 500,000
3	Improvements to US 27/ SR 50 Clermont PNR	FY 2011/12	\$ 10,000,000
	Park-and-Ride at US 19 South of Turnpike	FY 2012/13	\$ 500,000
	Intermodal Center on US 441 near CR 449	FY 2014/15	\$ 9,000,000
	Park-and-Ride #3	FY 2014/15	\$ 500,000
	Park-and-Ride #4	FY 2015/16	\$ 500,000
	Park-and-Ride #5	FY 2016/17	\$ 500,000
	Park-and-Ride #6	FY 2016/17	\$ 500,000
	Park-and-Ride #7	FY 2016/17	\$ 500,000
	Park-and-Ride #8	FY 2016/17	\$ 500,000

Identified transportation improvements include new par-and-rides, the intermodal center, bus stops, and amenities.

### 9.4 Identification of Alternatives

In **Section 8**, a range of approximately fifty alternative transit corridors were identified and the areas served by the corridors are displayed on the maps below. The corridors were developed based upon the community vision, goals, and objectives (**Section 3**) as well as the identified transportation needs of the community described in **Section 5**. The transit corridors shown in **Figure 9-1: Alternatives Corridors Considered** were presented to the community, Lake~Sumter MPO, Lake County, Sumter County, cities, and the regional workforce board. Based upon community input regarding the alternative corridors considered, the corridors were modified and grouped into future transit alternatives and presented to the community, as shown in **Figure 9-2**,

Figure 9-3, and Figure 9-4. The description of each of the three Alternatives is summarized in Table 9-10, Table 9-11, and Table 9-12.

**Table 9-10: Summary Description of Alternative #1**

	Corridor #	Description	Mode
<b>1st Five</b>	1.10	LX Route 1 - Cross County Connector (Operated as is until 2012)	Fixed Route
	1.20	LX Route 2 - Leesburg Circulator (Operated as is until 2012)	Fixed Route
	1.30	LX Route 3 - Mount Dora Circulator (Operate as is until 2012)	Fixed Route
	1.40	ZELLWOOD CONNECTOR (GRANT 2009)	Fixed Route
	1.11	Rev LX Route 1 - Cross County Connector (Streamline in 2012)	Fixed Route
	1.21	LEESBURG FRUITLAND PARK CIRCULATOR	Circulator
	1.31	GOLDEN TRIANGLE CIRCULATOR	Circulator
	1.41	ZELLWOOD CONNECTOR AM/PM HW	Fixed Route
<b>2nd Five</b>	7.41	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 1)	BRT
	7.42	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 2)	BRT
	9.10	NORTHWEST COMMUTER RAIL PHASE 1 (ORLANDO TO ZELLWOOD)	CRT
	9.20	NORTHWEST COMMUTER RAIL PHASE 2 (ZELLWOOD TO EUSTIS)	CRT
	9.30	NORTHWEST COMMUTER RAIL (MOUNT DORA CONNECTION)	CRT

**Table 9-11: Summary Description of Alternative #2**

	Corridor #	Description	Mode
<b>1st Five</b>	1.10	LX Route 1 - Cross County Connector (Operated as is until 2012)	Fixed Route
	1.20	LX Route 2 - Leesburg Circulator (Operated as is until 2012)	Fixed Route
	1.30	LX Route 3 - Mount Dora Circulator (Operate as is until 2012)	Fixed Route
	1.40	ZELLWOOD CONNECTOR (GRANT 2009)	Fixed Route
	1.11	Rev LX Route 1 - Cross County Connector (Streamline in 2012)	Fixed Route
	1.21	LEESBURG FRUITLAND PARK CIRCULATOR	Circulator
	1.31	GOLDEN TRIANGLE CIRCULATOR	Circulator
	1.41	ZELLWOOD CONNECTOR AM/PM HW	Fixed Route
	3.10	SR 50 EXPRESS ORANGE COUNTY TO MASCOTTE	Express Bus
<b>2nd Five</b>	3.40	US 27 SOUTH TO FOUR CORNERS	Express Bus
	4.10	CLERMONT MINNEOLA CIRCULATOR	Circulator
	7.41	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 1)	BRT
	7.42	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 2)	BRT
	9.10	NORTHWEST COMMUTER RAIL PHASE 1 (ORLANDO TO ZELLWOOD)	CRT
	9.20	NORTHWEST COMMUTER RAIL PHASE 2 (ZELLWOOD TO EUSTIS)	CRT
9.30	NORTHWEST COMMUTER RAIL (MOUNT DORA CONNECTION)	CRT	

**Table 9-12: Summary Description of Alternative #3**

	Corridor #	Description	Start Year	Mode
1st Five	1.10	LX Route 1 - Cross County Connector (Operated as is until 2012)	2007	Fixed Route
	1.20	LX Route 2 - Leesburg Circulator (Operated as is until 2012)	2008	Fixed Route
	1.30	LX Route 3 - Mount Dora Circulator (Operate as is until 2012)	2009	Fixed Route
	1.40	ZELLWOOD CONNECTOR (GRANT 2009)	2009	Fixed Route
	1.11	Rev LX Route 1 - Cross County Connector (Streamline in 2012)	2012	Fixed Route
	1.21	LEESBURG FRUITLAND PARK CIRCULATOR	2012	Circulator
	1.31	GOLDEN TRIANGLE CIRCULATOR	2012	Circulator
	1.41	ZELLWOOD CONNECTOR AM/PM HW	2012	Fixed Route
	3.10	SR 50 EXPRESS ORANGE COUNTY TO MASCOTTE	2012	Express Bus
4.50	LEESBURG TO CHRIS FORD INDUSTRIAL PARK	2012	Fixed Route	
2nd Five	2.40	DISNEY EXPRESS TO ANIMAL KINGDOM VIA 429	2015	Express Bus
	3.40	US 27 SOUTH TO FOUR CORNERS	2015	Express Bus
	4.10	CLERMONT MINNEOLA CIRCULATOR	2015	Circulator
	4.60	LAKE COUNTY DRI CIRCULATOR	2015	Circulator
	5.40	MOUNT DORA-PLYMOUTH-SORRENTO CIRCULATOR	2015	Fixed Route
	6.10	LADY LAKE TO WILDWOOD (LAKE COUNTY PORTION)	2015	Fixed Route
	7.10	SR 50 BUS RAPID TRANSIT (ORANGE CO. TO MASCOTTE)	2015	BRT
	7.41	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 1)	2015	BRT
	7.42	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 2)	2015	BRT
	9.10	NORTHWEST COMMUTER RAIL PHASE 1 (ORLANDO TO ZELLWOOD)	2015	CRT
	9.20	NORTHWEST COMMUTER RAIL PHASE 2 (ZELLWOOD TO EUSTIS)	2015	CRT
9.30	NORTHWEST COMMUTER RAIL (MOUNT DORA CONNECTION)	2015	CRT	

Figure 9-1: Alternatives Corridors Considered

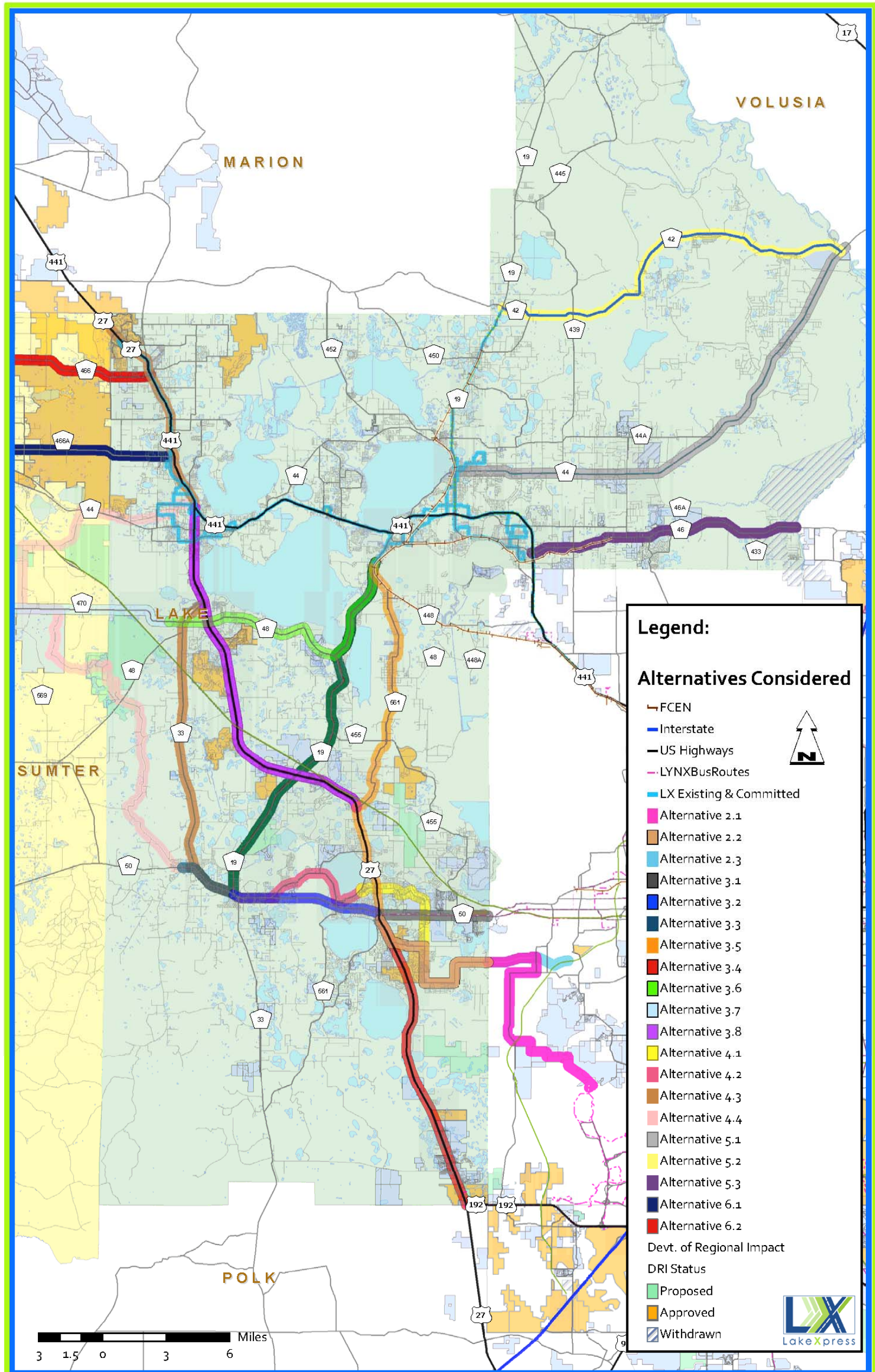


Figure 9-2: Future Transit Alternative #1

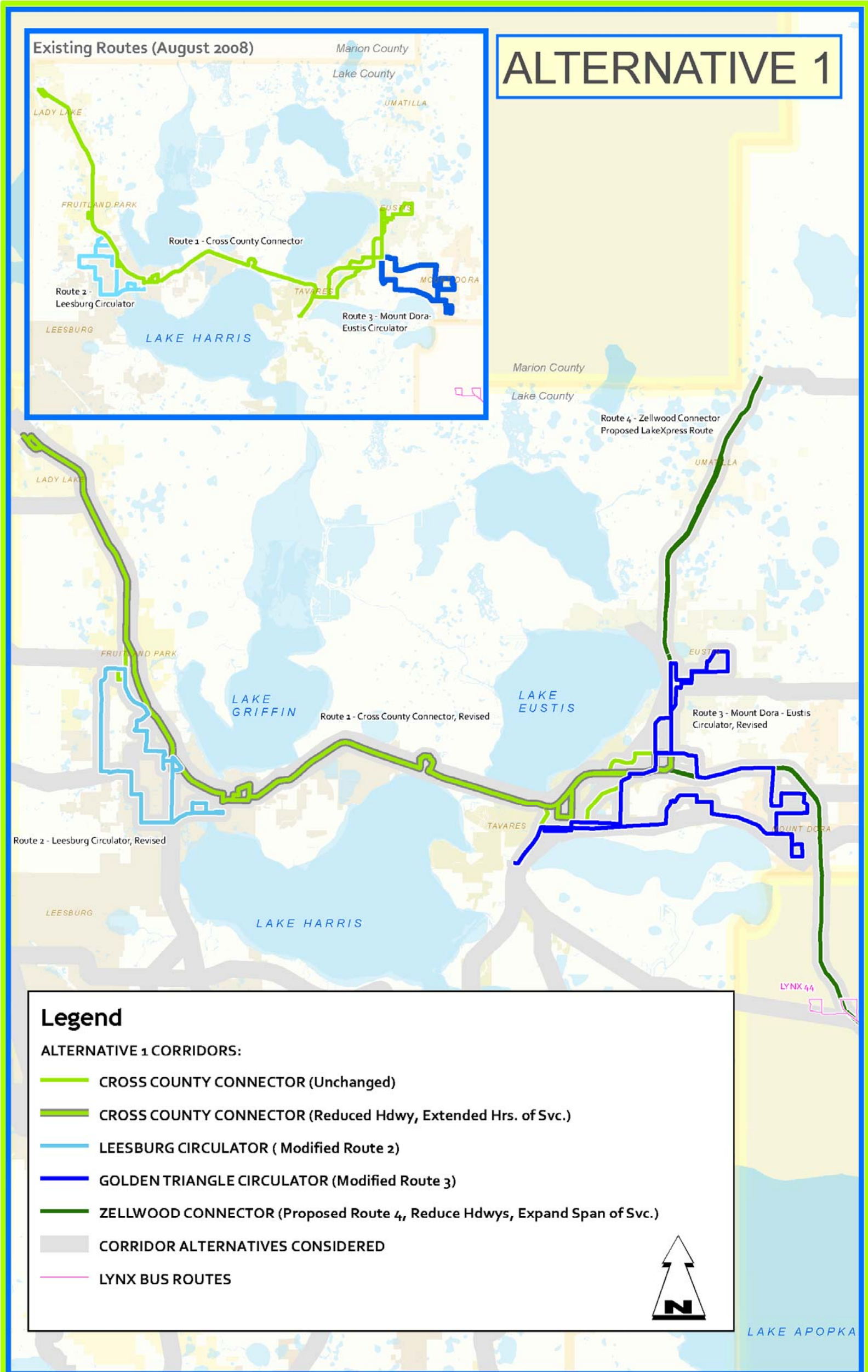




Figure 9-3: Future Transit Alternative #2

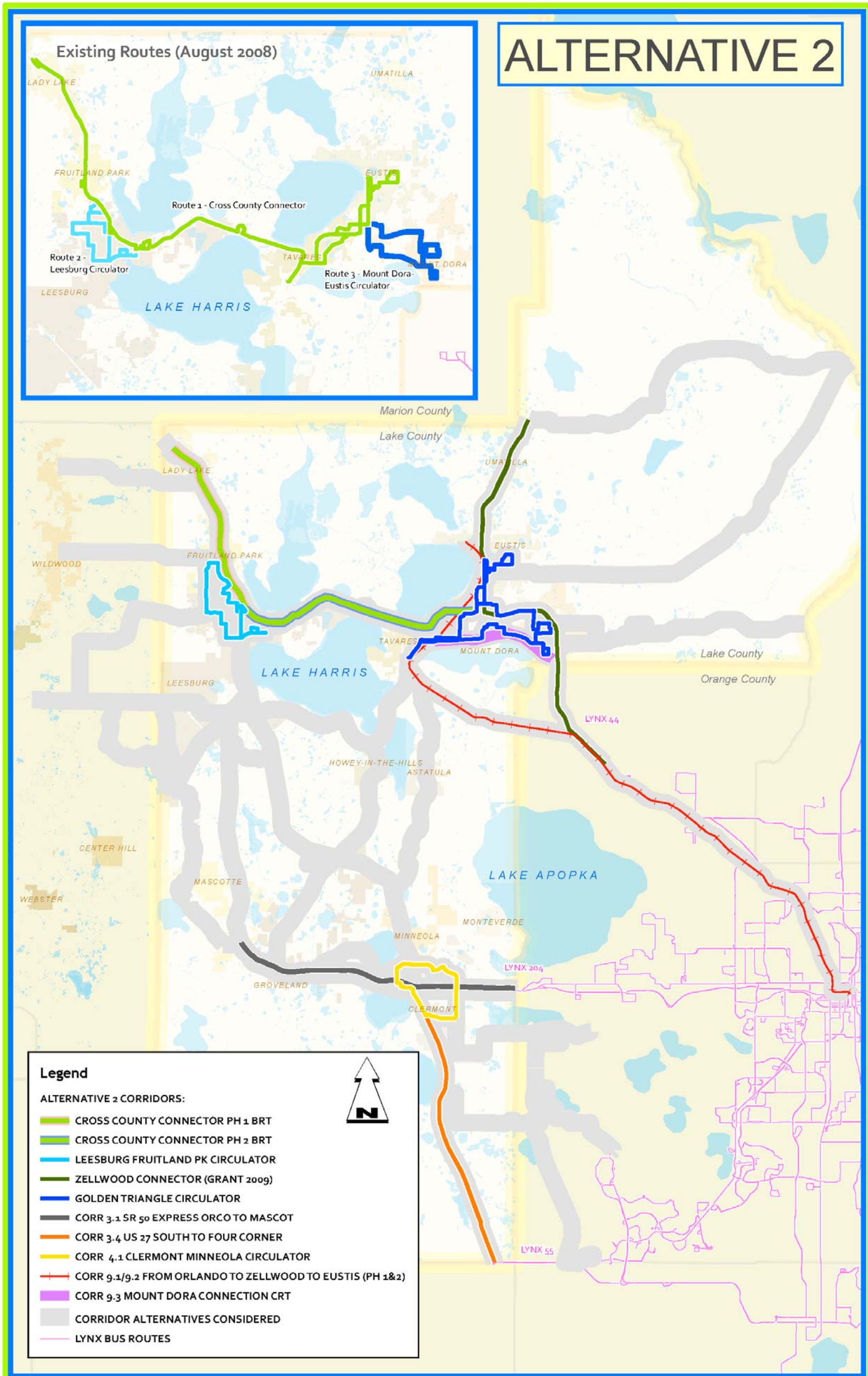
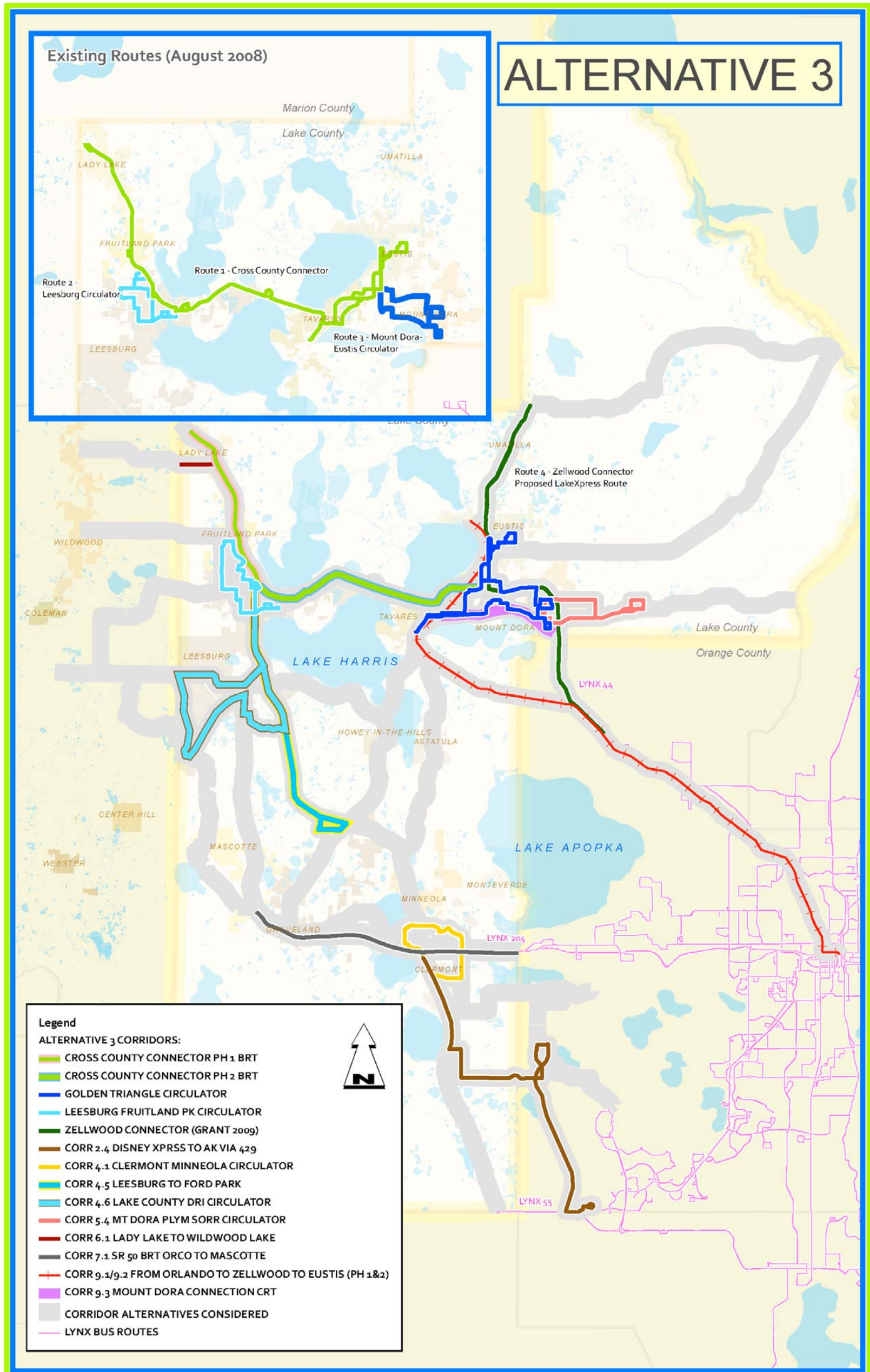


Figure 9-4: Future Transit Alternative #3



**Table 9-13: Service Characteristics Summary for Various Alternatives**

<i>Descriptive Name</i>	<i>Start Year</i>	<i>Mode</i>	<i>Span of Service</i>	<i>Headway (mins)</i>	<i>Days Per Week</i>	<i>Annual Days</i>	<i>Annual Hours</i>	<i>Annual Revenue Miles</i>	<i>Round Trip (miles)</i>	<i>Average Speed</i>	<i>Operating Cost Per Hour</i>	<i>Annual Operating Hours</i>	<i>Estimated Annual Operating Cost</i>
Route 1 - LakeXpress Cross County Connector (As Is)	2007	Fixed Route	14	60	5	255	3,570	257,400	72	18	\$62.64	14,300	\$895,752.00
Route 1 - LakeXpress Cross County Connector (Modified & Enhanced)	2012	Fixed Route	16	30	5	255	4,080	505,900	62	18	\$62.64	28,600	\$1,791,504.00
Route 2 - LakeXpress Leesburg Circulator (As Is)	2007	Circulator	13	60	5	255	3,315	104,100	16	15	\$62.64	3,300	\$206,712.00
Route 2 - Leesburg Fruitland Park Circulator (Modified And Enhanced)	2012	Circulator	15	30	5	255	3,825	229,500	15	15	\$62.64	7,700	\$482,328.00
Route 3 - LakeXpress Mount Dora Circulator (As Is)	2008	Circulator	12	60	5	255	3,060	90,600	15	15	\$62.64	3,100	\$194,184.00
Route 3 - LakeXpress Golden Triangle Circulator (Modified And Enhanced)	2012	Circulator	14	30	5	255	3,570	442,700	31	15	\$62.64	14,300	\$895,752.00
Route 4 - LakeXpress Zellwood Connector (As Proposed)	2009	Fixed Route	12	120	5	255	3,060	67,300	44	15	\$62.64	4,600	\$288,144.00
Route 4 - LakeXpress Zellwood Connector (Enhanced)	2012	Fixed Route	14	60	5	255	3,570	157,100	44	15	\$62.64	10,700	\$670,248.00
Corridor 2.1 Express to Disney/Reams Road	2015	Express Bus	14	90	5	255	3,570	61,900	26	24	\$62.64	2,800	\$175,392.00
Corridor 2.2 Express to Disney/County Line	2015	Express Bus	14	90	5	255	3,570	47,600	20	24	\$62.64	2,000	\$125,280.00
Corridor 2.3 Express to Winter Garden Village at Fowler's Grove	2015	Express Bus	14	90	5	255	3,570	19,000	8	24	\$62.64	800	\$50,112.00
Corridor 2.4 Disney Express to US 192 and Animal Kingdom Via SR 429 (Limited Access)	2015	Express Bus	14	90	5	255	3,570	138,000	58	24	\$62.64	6,000	\$375,840.00
Corridor 3.1 SR 50 Express Orange County to Mascotte	2012	Express Bus	14	90	5	255	3,570	66,600	28	24	\$62.64	2,800	\$175,392.00
Corridor 3.4 US 27 South To Four Comer	2015	Express Bus	14	90	5	255	3,570	90,400	38	24	\$62.64	4,000	\$250,560.00
Corridor 3.5 US 27/CR 561 Minneola/Astatula	2015	Fixed Route	12	60	5	255	3,060	110,200	36	15	\$62.64	7,100	\$444,744.00
Corridor 3.6 SR 19/CR48 Tavares/Howey-in-the-Hills	2017	Fixed Route	12	60	5	255	3,060	85,700	28	15	\$62.64	5,600	\$350,784.00
Corridor 3.7 CR 470 Leesburg to US 301 Sumter	2017	Fixed Route	12	60	5	255	3,060	61,200	20	15	\$62.64	4,100	\$256,824.00
Corridor 3.8 US 27 North from CR561 to Leesburg	2017	Fixed Route	12	60	5	255	3,060	263,200	86	15	\$62.64	17,300	\$1,083,672.00
Corridor 3.9 SR 19 North From US 27 to Tavares	2017	Fixed Route	12	60	5	255	3,060	110,200	36	15	\$62.64	7,100	\$444,744.00
Corridor 4.1 Clemont/Minneola Circulator	2015	Circulator	12	60	5	255	3,060	67,300	11	15	\$62.64	2,000	\$125,280.00
Corridor 4.2 Clemont SR 50 Bypass	2012	Fixed Route	12	60	5	255	3,060	36,700	12	15	\$62.64	2,600	\$162,864.00
Corridor 4.3 Clemont/Groveland/Mascotte	2017	Fixed Route	12	60	5	255	3,060	202,000	66	15	\$62.64	13,300	\$833,112.00
Corridor 4.4 Mascotte to Sumter County (Lake County Portion)	2017	Fixed Route	12	60	5	255	3,060	104,000	34	15	\$62.64	7,100	\$444,744.00
Corridor 4.4 Mascotte to Sumter County (Sumter County Portion)	2017	Fixed Route	12	60	5	255	3,060	91,800	30	15	\$62.64	6,100	\$382,104.00
Corridor 4.5 Leesburg to Ford Park	2012	Fixed Route	12	60	5	255	3,060	104,000	34	15	\$62.64	7,100	\$444,744.00
Corridor 4.6 Lake County DRI Circulator	2015	Circulator	12	60	5	255	3,060	165,200	27	15	\$62.64	5,600	\$350,784.00
Corridor 5.1 Eustis to DeLand	2015	Express Bus	14	120	5	255	3,570	85,700	48	15	\$62.64	5,700	\$357,048.00
Corridor 5.2 Altoona to DeLand	2012	Express Bus	14	120	5	255	3,570	67,800	38	15	\$62.64	4,500	\$281,880.00
Corridor 5.3 Mount Dora to Seminole County	2019	Express Bus	14	120	5	255	3,570	46,400	26	15	\$62.64	3,000	\$187,920.00
Corridor 5.4 Mount Dora Plymouth Sorrento Circulator	2015	Fixed Route	12	120	5	255	3,060	39,800	26	15	\$62.64	2,600	\$162,864.00
Corridor 6.1 Lady Lake to Wildwood (Lake County Portion)	2015	Fixed Route	12	60	5	255	3,060	12,200	4	15	\$62.64	1,000	\$62,640.00
Corridor 6.1 Lady Lake to Wildwood (Sumter County Portion)	2015	Fixed Route	12	60	5	255	3,060	36,700	12	15	\$62.64	2,600	\$162,864.00
Corridor 6.2 Fruitland Park to Wildwood	2015	Fixed Route	12	60	5	255	3,060	61,200	20	15	\$62.64	4,100	\$256,824.00
Corridor 7.1 SR 50 BRT Orange County To Mascotte	2015	BRT	16	30	5	255	4,080	228,500	28	27	\$75.00	8,200	\$615,000.00
Corridor 7.41 Cross County Connector Ph 1 BRT	2015	BRT	16	30	5	255	4,080	146,900	18	27	\$75.00	5,400	\$405,000.00
Corridor 7.42 Cross County Connector Ph 2 BRT	2015	BRT	16	30	5	255	4,080	212,200	26	27	\$75.00	8,200	\$615,000.00
Corridor 8.1 Rev SR 50 LRT Orange County Line to CR 33	2019	LRT	14	10	5	255	3,570	642,600	30	30	\$145.00	21,400	\$3,103,000.00
Corridor 8.1 SR 50 LRT Clemont P-N-R to Orange County Line	2019	LRT	14	10	5	255	3,570	257,000	12	30	\$145.00	14,300	\$2,073,500.00
Corridor 8.2 SR 50 LRT Clemont to Mascotte	2019	LRT	14	10	5	255	3,570	257,000	12	30	\$145.00	14,300	\$2,073,500.00
Corridor 8.3 SR 50 LRT to Mascotte	2019	LRT	12	15	5	255	3,060	73,400	6	30	\$145.00	4,100	\$594,500.00
Corridor 8.4 Cross County Connector LRT	2019	LRT	14	10	5	255	3,570	899,600	42	30	\$145.00	57,100	\$8,279,500.00
Corridor 9.1 Phase 1 NWCRT from Orlando to Zellwood	2015	CRT	12	60	5	255	3,060	128,500	42	40	\$250.00	1,480	\$3,900,000.00
Corridor 9.2 Phase 2 NWCRT from Zellwood to Eustis	2019	CRT	12	60	5	255	3,060	104,000	34	40	\$250.00	1,240	\$900,000.00
Corridor 9.3 Mount Dora Connection NWCRT	2019	CRT	12	60	5	255	3,060	36,700	12	40	\$250.00	840	\$500,000.00

The anticipated service characteristics of the alternative corridors presented to the community for further consideration were identified and summarized above in **Table 9-13** for two purposes. The alternative service characteristics were described and geo-coded so that a TBEST modeling analysis could be conducted to estimate ridership for several corridors. The results of the TBEST analysis are provided in **Appendix K**. In addition, the corridor service characteristics were used to estimate the operating and capital costs associated with each corridor alternative. For each of the identified alternatives, the fleet replacement schedule, anticipated station needs, paratransit fleet vehicle replacement schedule, and capital needs associated with new corridors to be served were included in the financial analysis.

### ***9.5 Cost of Alternatives***

This section details the corridor cost estimates for potential alternative options for public transportation in Lake County. Projects have been categorized by type and consistent assumptions were developed across alternatives. Once the alternatives are selected, the finance plan was developed and includes the identification of potential Federal, State, and local funding mechanisms. A funding gap has been quantified for the local funding responsibilities not covered by Federal Sources.

Population estimates for Lake County over the timeframe of this TDP update indicate that the area is expected to change from a designation of rural to a small urban area. This increase in population is expected to impact funding sources currently utilized by the County, and new sources of funding have been needed to address this shortfall. This has been an important consideration for the identification of future funding options.

A range of 48 public transportation improvement alternatives have been identified for the Lake County service area, including premium transit options. Premium transit options include bus rapid transit along the SR 50 corridor, light rail transit along the SR 50 corridor, and commuter rail along the Florida Central Railroad extending from Downtown Orlando to Zellwood, Tavares, and Eustis. The first four alternatives are simply to continue to provide the four LakeXpress routes already pursued through FDOT service development grants. The reason for including these four routes as the first four alternatives is because the FDOT grants will expire and future funding for these service routes will need to be identified. Additionally, 16 alternatives have been identified to improve the headways (time between buses arriving at a stop), extending service hours to start one-hour earlier and end one hour later, and adding service on Saturdays and Sundays. The remaining 20 service options are new fixed-route service alignments covering new portions of the service area to connect to specific employment opportunities, health and community services, residential areas, shopping, and recreational opportunities. All of these alternatives have been identified along with projected operating, capital, and vehicle costs.

**Table 9-14: Vehicle Costs**

LakeXpress Fixed-Route Bus Service Vehicle Fleet				
Vehicle	Estimated Service Life (Years)	Passenger Capacity, Seated Only	Passenger Capacity, Seated and Standing	Unit Cost
El Dorado	10	29	14	\$270,000.00
Blue Bird	10	24	14	\$2,500,000.00
Light Rail Vehicle	30	150	220	\$1,250,000.00
Commuter Rail Coach (2-level)	30	145	180	\$1,900,000.00

*Source: Lake County Public Transit Division, 2008*

Fleet replacement requirements have been projected based upon the information shown in **Table 9-15** below. Based upon these assumptions, all alternative costs have been projected and are detailed in **Table 9-15**. It is anticipated that the costs associated with vehicle replacement would be covered in large part through capital assistance grants such as the Section 5307 Urbanized Area Formula Program and the Florida Intermodal Development Program.

**Table 9-15: Fleet Replacement Vehicles 2008 -2020**

LakeXpress Fixed-Route Bus Service Vehicle Fleet Replacement Schedule					
Vehicle	Quantity	Year Purchased	Estimated Service Life (Years)	Replacement Schedule	Unit Cost (2008\$)
International (Spare Vehicles)	1	FY 2005/FY 2006	10	FY 2015/2016	\$130,000.00
International (Spare Vehicles)	1	FY 2006/FY 2007	10	FY 2016/2017	\$130,000.00
Blue Bird	2	FY 2007/FY 2008	10	FY 2017/2018	\$260,000.00
El Dorado	1	FY 2008/FY 2009	10	FY 2018/2019	\$270,000.00
Blue Bird	3	FY 2008/FY 2009	10	FY 2018/2019	\$260,000.00
El Dorado	2	FY 2009/FY 2010	10	FY 2019/2020	\$270,000.00

*Source: Lake County Public Transit Division, 2008*

The construction schedule and costs of the Alternatives are summarized in **Table 9-16**. For each corridor the costs of stops, vehicles, and other capital improvements are summarized based on the experience of similar projects as reported to the National Transit Database.

**Table 9-16: Construction Schedule 2009 -2020**

New Service Candidates		FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
3.10	SR 50 EXPRESS ORANGE COUNTY TO MASCOTTE	\$ 2,772	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4.50	LEESBURG TO CHRIS FORD INDUSTRIAL PARK	\$ 18,848	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.40	DISNEY EXPRESS TO ANIMAL KINGDOM VIA 429	\$ -	\$ -	\$ -	\$ 15,980	\$ -	\$ -	\$ -	\$ -
3.40	US 27 SOUTH TO FOUR CORNERS	\$ -	\$ -	\$ -	\$ 11,678	\$ -	\$ -	\$ -	\$ -
4.10	CLERMONT MINNEOLA CIRCULATOR	\$ -	\$ -	\$ -	\$ 8,605	\$ -	\$ -	\$ -	\$ -
4.60	LAKE COUNTY DRI CIRCULATOR	\$ -	\$ -	\$ -	\$ 33,190	\$ -	\$ -	\$ -	\$ -
5.40	MOUNT DORA-PLYMOUTH-SORRENTO CIRCULATOR	\$ -	\$ -	\$ -	\$ 15,980	\$ -	\$ -	\$ -	\$ -
6.10	LADY LAKE TO WILDWOOD (LAKE COUNTY PORTION)	\$ -	\$ -	\$ -	\$ 2,459	\$ -	\$ -	\$ -	\$ -
7.10	SR 50 BUS RAPID TRANSIT (ORANGE CO. TO MASCOTTE)	\$ -	\$ -	\$ 9,976,565	\$ 860,479	\$ -	\$ -	\$ -	\$ -
7.41	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 1)	\$ -	\$ -	\$ 6,413,506	\$ 1,106,330	\$ -	\$ -	\$ -	\$ -
7.42	CROSS COUNTY CONNECTOR BUS RAPID TRANSIT (PHASE 2)	\$ -	\$ -	\$ 9,263,953	\$ 1,598,032	\$ -	\$ -	\$ -	\$ -
9.10	NORTHWEST COMMUTER RAIL PHASE 1 (ORLANDO TO ZELLWOOD)	\$ -	\$ -	\$ 9,501,490	\$ 4,917,021	\$ -	\$ -	\$ -	\$ -
9.20	NORTHWEST COMMUTER RAIL PHASE 2 (ZELLWOOD TO EUSTIS)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,814,487	\$ 5,642,395
9.30	NORTHWEST COMMUTER RAIL (MOUNT DORA CONNECTION)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,088,692	\$ 1,410,599

### 9.5.1 Cost and Revenues for the Alternatives

For the purposes of this Transit Development Plan Update, over 50 corridors were identified and considered. Ultimately, twenty-two corridors were carried forward for additional consideration, as described in **Section 8**. This focus for the future was to concentrate transit service improvements within the existing LakeXpress service corridors because ridership has exceeded expectations and patrons indicate that they are very pleased with the service. Also, the LakeXpress fixed-routes connect the areas of Lake County where population density and employment intensity are transit supportive. This is very important since most LakeXpress patrons are commuters traveling between home and work. Commuters indicated through their survey responses that they would like to see additional service hours and a shorter wait time between buses. The South Lake Express patrons were also very pleased with service and sought additional service. As such, the operating and capital costs for each of the Alternatives identified were developed and are summarized in the following three tables (**Table 9-16, 9-17, and 9-18**).

Table 9-17: Projected Expenditures for Alternative #1

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
<b>Expenditures</b>												
<b>Operating Expenditures</b>												
Paratransit	\$ 5,599,149	\$ 5,968,721	\$ 6,338,293	\$ 6,707,866	\$ 7,077,438	\$ 7,447,010	\$ 7,816,582	\$ 8,186,155	\$ 8,555,727	\$ 8,925,299	\$ 9,294,872	\$ 9,664,444
Existing Fixed Routes	\$ 2,029,792	\$ 2,100,835	\$ 2,174,364	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Fixed Routes	\$ -	\$ -	\$ -	\$ 4,750,670	\$ 4,916,943	\$ 5,089,036	\$ 3,064,937	\$ 3,172,210	\$ 3,283,237	\$ 3,398,150	\$ 3,517,085	\$ 3,640,183
Premium Transit Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,128,455	\$ 3,237,951	\$ 3,351,279	\$ 3,468,574	\$ 6,093,787	\$ 6,307,069
<b>Total Operating Expenditures</b>	<b>\$ 7,628,941</b>	<b>\$ 8,069,556</b>	<b>\$ 8,512,657</b>	<b>\$ 11,458,535</b>	<b>\$ 11,994,381</b>	<b>\$ 12,536,046</b>	<b>\$ 14,009,974</b>	<b>\$ 14,596,315</b>	<b>\$ 15,190,243</b>	<b>\$ 15,792,023</b>	<b>\$ 18,905,744</b>	<b>\$ 19,611,697</b>
<b>Capital Expenditures</b>												
<b>New Vehicle Acquisition</b>												
New Fixed Routes	\$ -	\$ -	\$ 2,306,133	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Premium Transit Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,197,899	\$ -	\$ -	\$ -	\$ 19,748,383	\$ -	\$ -
<b>Transit Stop Development</b>												
New Fixed Routes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Premium Transit Services	\$ -	\$ -	\$ -	\$ -	\$ 25,654,024	\$ 7,621,383	\$ -	\$ -	\$ 22,078,937	\$ 7,052,994	\$ -	\$ -
<b>Capital Stock Replacement</b>												
Paratransit	\$ 642,314	\$ 373,013	\$ -	\$ -	\$ -	\$ 428,040	\$ 907,462	\$ 1,941,391	\$ 595,981	\$ -	\$ -	\$ -
Existing Fixed Routes	\$ 53,820	\$ 12,855	\$ 447,368	\$ 162,948	\$ 323,051	\$ 346,650	\$ 346,060	\$ 371,340	\$ 16,355	\$ 16,927	\$ 17,520	\$ 18,133
Intermodal Centers/Stations				\$ 10,000,000								
<b>Contingency (15%)</b>												
Paratransit	\$ 96,347	\$ 55,952	\$ -	\$ -	\$ -	\$ 64,206	\$ 136,119	\$ 291,209	\$ 89,397	\$ -	\$ -	\$ -
Fixed Routes	\$ 8,073	\$ 1,928	\$ 413,025	\$ 1,524,442	\$ 3,896,561	\$ 3,324,890	\$ 51,909	\$ 55,701	\$ 3,314,294	\$ 4,022,746	\$ 2,628	\$ 2,720
<b>Total Capital Expenditures</b>	<b>\$ 800,554</b>	<b>\$ 443,747</b>	<b>\$ 3,166,526</b>	<b>\$ 11,687,391</b>	<b>\$ 29,873,636</b>	<b>\$ 25,983,068</b>	<b>\$ 1,441,550</b>	<b>\$ 2,659,641</b>	<b>\$ 26,094,964</b>	<b>\$ 30,841,049</b>	<b>\$ 20,148</b>	<b>\$ 20,853</b>
<b>Total Expenditures</b>	<b>\$ 8,429,494</b>	<b>\$ 8,513,303</b>	<b>\$ 11,679,183</b>	<b>\$ 23,145,926</b>	<b>\$ 41,868,017</b>	<b>\$ 38,519,115</b>	<b>\$ 15,451,524</b>	<b>\$ 17,255,956</b>	<b>\$ 41,285,207</b>	<b>\$ 46,633,073</b>	<b>\$ 18,925,891</b>	<b>\$ 19,632,549</b>

**Table 9-18: Projected Expenditures for Alternative #2**

Expenditures	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
<b>Operating Expenditures</b>												
Paratransit	\$ 5,599,149	\$ 5,968,721	\$ 6,338,293	\$ 6,707,866	\$ 7,077,438	\$ 7,447,010	\$ 7,816,582	\$ 8,186,155	\$ 8,555,727	\$ 8,925,299	\$ 9,294,872	\$ 9,664,444
Existing Fixed Routes	\$ 2,029,792	\$ 2,100,835	\$ 2,174,364	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Fixed Routes	\$ -	\$ -	\$ -	\$ 4,945,130	\$ 5,118,210	\$ 5,297,347	\$ 3,526,940	\$ 3,650,383	\$ 3,778,146	\$ 3,910,381	\$ 4,047,245	\$ 4,188,898
Premium Transit Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,128,455	\$ 3,237,951	\$ 3,351,279	\$ 3,468,574	\$ 6,093,787	\$ 6,307,069
<b>Total Operating Expenditures</b>	<b>\$ 7,628,941</b>	<b>\$ 8,069,556</b>	<b>\$ 8,512,657</b>	<b>\$ 11,652,996</b>	<b>\$ 12,195,647</b>	<b>\$ 12,744,357</b>	<b>\$ 14,471,977</b>	<b>\$ 15,074,488</b>	<b>\$ 15,685,152</b>	<b>\$ 16,304,255</b>	<b>\$ 19,435,903</b>	<b>\$ 20,160,412</b>
<b>Capital Expenditures</b>												
New Vehicle Acquisition												
New Fixed Routes	\$ -	\$ -	\$ 2,594,400	\$ -	\$ -	\$ 639,213	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Premium Transit Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,197,899	\$ -	\$ -	\$ -	\$ 19,748,383	\$ -	\$ -
Transit Stop Development												
New Fixed Routes	\$ -	\$ -	\$ 2,772	\$ -	\$ -	\$ 20,283	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Premium Transit Services	\$ -	\$ -	\$ -	\$ -	\$ 26,366,636	\$ 7,621,383	\$ -	\$ -	\$ 22,078,937	\$ 7,052,994	\$ -	\$ -
Capital Stock Replacement												
Paratransit	\$ 642,314	\$ 373,013	\$ -	\$ -	\$ -	\$ 428,040	\$ 907,462	\$ 1,941,391	\$ 595,981	\$ -	\$ -	\$ -
Existing Fixed Routes	\$ 53,820	\$ 12,855	\$ 447,368	\$ 162,948	\$ 323,051	\$ 346,650	\$ 346,060	\$ 371,340	\$ 16,355	\$ 16,927	\$ 17,520	\$ 18,133
Intermodal Centers/Stations				\$ 10,000,000	\$ 593,843		\$ 636,140					
Contingency (15%)												
Paratransit	\$ 96,347	\$ 55,952	\$ -	\$ -	\$ -	\$ 64,206	\$ 136,119	\$ 291,209	\$ 89,397	\$ -	\$ -	\$ -
Fixed Routes	\$ 8,073	\$ 1,928	\$ 456,681	\$ 1,524,442	\$ 4,092,529	\$ 3,423,814	\$ 147,330	\$ 55,701	\$ 3,314,294	\$ 4,022,746	\$ 2,628	\$ 2,720
<b>Total Capital Expenditures</b>	<b>\$ 800,554</b>	<b>\$ 443,747</b>	<b>\$ 3,501,220</b>	<b>\$ 11,687,391</b>	<b>\$ 31,376,059</b>	<b>\$ 26,741,488</b>	<b>\$ 2,173,111</b>	<b>\$ 2,659,641</b>	<b>\$ 26,094,964</b>	<b>\$ 30,841,049</b>	<b>\$ 20,148</b>	<b>\$ 20,853</b>
<b>Total Expenditures</b>	<b>\$ 8,429,494</b>	<b>\$ 8,513,303</b>	<b>\$ 12,013,877</b>	<b>\$ 23,340,386</b>	<b>\$ 43,571,707</b>	<b>\$ 39,485,845</b>	<b>\$ 16,645,088</b>	<b>\$ 17,734,130</b>	<b>\$ 41,780,117</b>	<b>\$ 47,145,304</b>	<b>\$ 19,456,051</b>	<b>\$ 20,181,264</b>



**Table 9-19: Projected Expenditures for Alternative #3**

	<i>FY 2011</i>	<i>FY 2012</i>	<i>FY 2013</i>	<i>FY 2014</i>	<i>FY 2015</i>	<i>FY 2016</i>	<i>FY 2017</i>	<i>FY 2018</i>	<i>FY 2019</i>	<i>FY 2020</i>
<b>Expenditures</b>										
<b>Operating Expenditures</b>										
Paratransit	\$ 6,338,293	\$ 6,707,866	\$ 7,077,438	\$ 7,447,010	\$ 7,816,582	\$ 8,186,155	\$ 8,555,727	\$ 8,925,299	\$ 9,294,872	\$ 9,664,444
Existing Fixed Routes	\$ 2,174,364	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Fixed Routes	\$ -	\$ 5,438,226	\$ 5,628,564	\$ 5,825,563	\$ 5,244,052	\$ 5,427,594	\$ 5,617,560	\$ 5,814,175	\$ 6,017,671	\$ 6,228,289
Premium Transit Services	\$ -	\$ -	\$ -	\$ -	\$ 3,884,447	\$ 4,020,402	\$ 4,161,117	\$ 4,306,756	\$ 6,961,305	\$ 7,204,951
<b>Total Operating Expenditures</b>	<b>\$ 8,512,657</b>	<b>\$ 12,146,091</b>	<b>\$ 12,706,001</b>	<b>\$ 13,272,573</b>	<b>\$ 16,945,082</b>	<b>\$ 17,634,152</b>	<b>\$ 18,334,404</b>	<b>\$ 19,046,230</b>	<b>\$ 22,273,847</b>	<b>\$ 23,097,684</b>
<b>Capital Expenditures</b>										
<b>New Vehicle Acquisition</b>										
New Fixed Routes	\$ 3,170,933	\$ -	\$ -	\$ 2,556,851	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Premium Transit Services	\$ -	\$ -	\$ -	\$ 15,058,378	\$ -	\$ -	\$ -	\$ 19,748,383	\$ -	\$ -
<b>Transit Stop Development</b>										
New Fixed Routes	\$ 21,620	\$ -	\$ -	\$ 87,892	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Premium Transit Services	\$ -	\$ -	\$ 35,155,515	\$ 8,481,862	\$ -	\$ -	\$ 10,903,179	\$ 7,052,994	\$ -	\$ -
<b>Capital Stock Replacement</b>										
Paratransit	\$ -	\$ -	\$ -	\$ 428,040	\$ 907,462	\$ 1,941,391	\$ 595,981	\$ -	\$ -	\$ -
Existing Fixed Routes	\$ 447,368	\$ 162,948	\$ 323,051	\$ 346,650	\$ 346,060	\$ 371,340	\$ 16,355	\$ 16,927	\$ 17,520	\$ 18,133
Intermodal Centers/Stations		\$ 10,000,000	\$ 593,843		\$ 12,086,653	\$ 658,405	\$ 2,725,795			
<b>Contingency (15%)</b>										
Paratransit	\$ -	\$ -	\$ -	\$ 64,206	\$ 136,119	\$ 291,209	\$ 89,397	\$ -	\$ -	\$ -
Fixed Routes	\$ 545,988	\$ 1,524,442	\$ 5,410,861	\$ 3,979,745	\$ 1,864,907	\$ 154,462	\$ 2,046,799	\$ 4,022,746	\$ 2,628	\$ 2,720
<b>Total Capital Expenditures</b>	<b>\$ 4,185,909</b>	<b>\$ 11,687,391</b>	<b>\$ 41,483,270</b>	<b>\$ 31,003,624</b>	<b>\$ 15,341,201</b>	<b>\$ 3,416,806</b>	<b>\$ 16,377,506</b>	<b>\$ 30,841,049</b>	<b>\$ 20,148</b>	<b>\$ 20,853</b>
<b>Total Expenditures</b>	<b>\$ 12,698,566</b>	<b>\$ 23,833,482</b>	<b>\$ 54,189,271</b>	<b>\$ 44,276,197</b>	<b>\$ 32,286,283</b>	<b>\$ 21,050,958</b>	<b>\$ 34,711,910</b>	<b>\$ 49,887,279</b>	<b>\$ 22,293,995</b>	<b>\$ 23,118,537</b>

## ***9.6 Projected Revenue Sources by Alternatives***

The 22 public transportation improvement corridors identified in **Section 8** have been organized into three (3) alternatives for Lake County. Based upon a review of available revenue sources, future revenue projections were made. In areas with populations over 200,000, Section 5307 funds cannot be used for operating expenses, with the exception of certain eligible maintenance expenses as defined in the National Transit Database. As such, this financial plan does not include any significant Federal and State operating grants after 2011. There are some sources operating revenue once Lake County has been recognized as a small urban system. This financial plan anticipates that Federal and State funding will be available principally for capital costs including vehicles, transit centers, and stops. Limited opportunities for operating costs have been anticipated from Job Access Reverse Commute (JARC), New Freedom funds, FDOT Transportation Corridors, and service development grants. The Metropolitan Planning Program funds were also anticipated to provide future funding for transit planning studies in compliance with Federal and State requirements. It is has also been anticipated that the Northwest Commuter Rail project would be eligible to receive Section 5309 funds for an Alternatives Analysis and, possibly, the project development phase. In order to be eligible, the Northwest Commuter Rail project would have to demonstrate that it would meet the Small Starts project eligibility criteria (a new tier for projects seeking less than \$75 million from Section 5309 and a total estimated net capital cost of less than \$250 million). Two specific federal grant programs may have significant applicability for planned services in Lake County; they are: the JARC and New Freedom programs. These funds may be used for planning, capital or operating costs of providing access to jobs or improving mobility for persons with disabilities. JARC and New Freedom Projects must be derived from the adopted Community Transportation Coordinator's plan, in Lake County, the TDSP. There are also opportunities to apply for New Freedom from FDOT for service enhancements or urban corridor planning as well as other state grants. Additional data and suggestions from staff were also used to predict levels and sources of anticipated federal, state, and local revenues devoted to fixed-route and paratransit operations. The following tables (**Tables 9-19, 9-20, 9-21, and 9-22**) summarize the alternatives and projected costs.

## ***9.7 Projected Revenue Sources and Anticipated Funding Gap***

For each alternative, the last three rows of the tables identify the funding gap for each Fiscal Year. For example, there is a \$2.3 million funding gap in FY 2010 for Alternative #1. After new service implementation in FY 2013, there is a funding gap of \$5.5 million when capital and operating funding are both considered. The funding gap will need to be provided by local sources allocated across jurisdictions. As noted earlier, the cost of circulator services will gradually be transferred from Lake County to municipalities for LakeXpress Routes 2 and 3. LakeXpress will continue to be operated by Lake County through a contract with M.V. Transportation. A detailed table describing anticipated expenditures by alternative and at the corridor level has been developed to identify potential funding sources. Anticipated grant funding amounts have also been estimated at the corridor and alternatives level. These costs and revenue sources are detailed in **Table 9-19**.

**Table 9-20: Projected Revenue Sources By Corridor and Alternative**

Descriptive Name	Start Year	New Capital Costs - Vehicles	Other Capital Costs - Track	Meets Community Goals and Criteria	New Capital Costs - Stops	Estimated Annual Operating Cost	Total Cost of Project - First Year	Potential Non-Local Operating Revenue Sources	Estimated Funding Request (Operating)	Anticipated Capital Revenue Sources	Estimated Funding Request (Operating)	Estimated Funding Request (Capital)	Estimated Unfunded Amount
Route 1 - LakeXpress Cross County Connector (As Is)	2007	\$1,040,000.00	\$ -	Yes	\$0.00	\$895,752.00	\$1,935,752.00	Section 5307, JARC (Section 5316)	\$ 448,000	FDOT PT Block Grant	\$448,000.00	\$832,000.00	\$655,752.00
Route 1 - LakeXpress Cross County Connector (Modified & Enhanced)	2012	\$780,000.00	\$ -	Yes	\$0.00	\$1,791,504.00	\$2,571,504.00	JARC (Section 5316)	\$ 896,000	FDOT PT Block Grant	\$896,000.00	\$624,000.00	\$1,051,504.00
Route 2 - LakeXpress Leesburg Circulator (As Is)	2007	\$260,000.00	\$ -	Yes	\$0.00	\$206,712.00	\$466,712.00	Section 5307, New Freedom (Section 5317)	\$ 103,000	FDOT PT Block Grant	\$103,000.00	\$208,000.00	\$155,712.00
Route 2 - Leesburg Fruitland Park Circulator (Modified And Enhanced)	2012	\$260,000.00	\$ -	Yes	\$0.00	\$482,328.00	\$742,328.00	New Freedom (Section 5317)	\$ 241,000	FDOT PT Block Grant	\$241,000.00	\$208,000.00	\$293,328.00
Route 3 - LakeXpress Mount Dora Circulator (As Is)	2008	\$260,000.00	\$ -	Yes	\$0.00	\$194,184.00	\$454,184.00	Section 5307, New Freedom (Section 5317)	\$ 97,000	FDOT PT Block Grant	\$97,000.00	\$208,000.00	\$149,184.00
Route 3 - LakeXpress Golden Triangle Circulator (Modified And Enhanced)	2012	\$780,000.00	\$ -	Yes	\$0.00	\$895,752.00	\$1,675,752.00	New Freedom (Section 5317)	\$ 448,000	FDOT PT Block Grant	\$448,000.00	\$624,000.00	\$603,752.00
Route 4 - LakeXpress Zellwood Connector (As Proposed)	2009	\$520,000.00	\$ -	Yes	\$0.00	\$288,144.00	\$808,144.00	FDOT Service Dev't, Tr. Bl. Gr. Funds	\$ 144,000	FDOT PT Block Grant	\$144,000.00	\$416,000.00	\$248,144.00
Route 4 - LakeXpress Zellwood Connector (Enhanced)	2012	\$260,000.00	\$ -	Yes	\$0.00	\$670,248.00	\$930,248.00	Transit Block Grant Funds	\$ 335,000	FDOT PT Block Grant	\$335,000.00	\$208,000.00	\$387,248.00
Corridor 2.1 Express to Disney/Reams Road	2015	\$260,000.00	\$ -	No	\$6,500.00	\$175,392.00	\$441,892.00	JARC (Section 5316)	\$ 88,000	FDOT PT Block Grant	\$88,000.00	\$213,200.00	\$140,692.00
Corridor 2.2 Express to Disney/County Line	2015	\$260,000.00	\$ -	No	\$5,000.00	\$125,280.00	\$390,280.00	JARC (Section 5316)	\$ 63,000	FDOT PT Block Grant	\$63,000.00	\$212,000.00	\$115,280.00
Corridor 2.3 Express to Winter Garden Village at Fowler's Grove	2015	\$260,000.00	\$ -	No	\$2,000.00	\$50,112.00	\$312,112.00	JARC (Section 5316)	\$ 25,000	FDOT PT Block Grant	\$25,000.00	\$209,600.00	\$77,512.00
Corridor 2.4 Disney Express to US 192 and Animal Kingdom Via SR 429 (Limited Access)	2015	\$520,000.00	\$ -	Yes	\$13,000.00	\$375,840.00	\$908,840.00	JARC (Section 5316)	\$ 188,000	FDOT PT Block Grant	\$188,000.00	\$426,400.00	\$294,440.00
Corridor 3.1 SR 50 Express Orange County to Mascotte	2012	\$260,000.00	\$ -	Yes	\$2,500.00	\$175,392.00	\$437,892.00	CIG/TRIP	\$ 88,000	FDOT PT Block Grant	\$88,000.00	\$210,000.00	\$139,892.00
Corridor 3.4 US 27 South To Four Corner	2015	\$260,000.00	\$ -	Yes	\$9,500.00	\$250,560.00	\$520,060.00	CIG/TRIP/DRI/Developer Agreements	\$ 125,000	FDOT PT Block Grant	\$125,000.00	\$215,600.00	\$179,460.00
Corridor 3.5 US 27/CR 561 Minneola/Astatula	2015	\$520,000.00	\$ -	No	\$18,000.00	\$444,744.00	\$982,744.00	CIG/TRIP/DRI/Developer Agreements	\$ 222,000	FDOT PT Block Grant	\$222,000.00	\$430,400.00	\$330,344.00
Corridor 3.6 SR 19/CR48 Tavares/ Howey-in-the-Hills	2017	\$520,000.00	\$ -	No	\$14,000.00	\$350,784.00	\$884,784.00	TRIP/DRI/Developer Agreements	\$ 175,000	FDOT PT Block Grant	\$175,000.00	\$427,200.00	\$282,584.00
Corridor 3.7 CR 470 Leesburg to US 301 Sumter	2017	\$260,000.00	\$ -	No	\$10,000.00	\$256,824.00	\$526,824.00	TRIP/DRI/Developer Agreements	\$ 128,000	FDOT PT Block Grant	\$128,000.00	\$216,000.00	\$182,824.00
Corridor 3.8 US 27 North from CR561 to Leesburg	2017	\$1,560,000.00	\$ -	No	\$39,000.00	\$1,083,672.00	\$2,682,672.00	CIG/TRIP/DRI/Developer Agreements	\$ 542,000	FDOT PT Block Grant	\$542,000.00	\$1,279,200.00	\$861,472.00
Corridor 3.9 SR 19 North From US 27 to Tavares	2017	\$520,000.00	\$ -	No	\$18,000.00	\$444,744.00	\$982,744.00	CIG/TRIP/DRI/Developer Agreements	\$ 222,000	FDOT PT Block Grant	\$222,000.00	\$430,400.00	\$330,344.00
Corridor 4.1 Clermont Minneola Circulator	2015	\$260,000.00	\$ -	Yes	\$7,000.00	\$125,280.00	\$392,280.00	CIG/TRIP/DRI/Developer Agreements	\$ 63,000	FDOT PT Block Grant	\$63,000.00	\$213,600.00	\$115,680.00
Corridor 4.2 Clermont SR 50 Bypass	2012	\$260,000.00	\$ -	No	\$6,000.00	\$162,864.00	\$428,864.00	CIG/Developer Agreements	\$ 81,000	FDOT PT Block Grant	\$81,000.00	\$212,800.00	\$135,064.00
Corridor 4.3 Clermont/Groveland/Mascotte	2017	\$1,040,000.00	\$ -	No	\$33,000.00	\$833,112.00	\$1,906,112.00	Service Development Grant Program	\$ 416,556	FDOT PT Block Grant	\$417,000.00	\$858,400.00	\$631,156.00
Corridor 4.4 Mascotte to Sumter County (Lake County Portion)	2017	\$520,000.00	\$ -	No	\$17,000.00	\$444,744.00	\$981,744.00	TRIP/DRI/Developer Agreements	\$ 222,000	FDOT PT Block Grant	\$222,000.00	\$429,600.00	\$330,144.00
Corridor 4.4 Mascotte to Sumter County (Sumter County Portion)	2017	\$520,000.00	\$ -	No	\$15,000.00	\$382,104.00	\$917,104.00	TRIP/DRI/Developer Agreements	\$ 191,000	FDOT PT Block Grant	\$191,000.00	\$428,000.00	\$298,104.00
Corridor 4.5 Leesburg to Ford Park	2012	\$520,000.00	\$ -	Yes	\$17,000.00	\$444,744.00	\$981,744.00	JARC (Section 5316)	\$ 222,000	FDOT PT Block Grant	\$222,000.00	\$429,600.00	\$330,144.00
Corridor 4.6 Lake County DRI Circulator	2015	\$520,000.00	\$ -	Yes	\$27,000.00	\$350,784.00	\$897,784.00	CIG/TRIP/DRI/Developer Agreements	\$ 175,000	FDOT PT Block Grant	\$175,000.00	\$437,600.00	\$285,184.00
Corridor 5.1 Eustis to DeLand	2015	\$520,000.00	\$ -	No	\$12,000.00	\$357,048.00	\$889,048.00	Service Development Grant Program	\$ 179,000	FDOT PT Block Grant	\$179,000.00	\$425,600.00	\$284,448.00
Corridor 5.2 Altoona to DeLand	2012	\$260,000.00	\$ -	No	\$9,500.00	\$281,880.00	\$551,380.00	Service Development Grant Program	\$ 141,000	FDOT PT Block Grant	\$141,000.00	\$215,600.00	\$194,780.00
Corridor 5.3 Mount Dora to Seminole County	2019	\$260,000.00	\$ -	No	\$6,500.00	\$187,920.00	\$454,420.00	Service Development Grant Program	\$ 94,000	FDOT PT Block Grant	\$94,000.00	\$213,200.00	\$147,220.00
Corridor 5.4 Mount Dora Plymouth Sorrento Circulator	2015	\$260,000.00	\$ -	Yes	\$13,000.00	\$162,864.00	\$435,864.00	Service Development Grant Program	\$ 81,000	FDOT PT Block Grant	\$81,000.00	\$218,400.00	\$136,464.00
Corridor 6.1 Lady Lake to Wildwood (Lake County Portion)	2015	\$260,000.00	\$ -	No	\$2,000.00	\$62,640.00	\$324,640.00	Service Development Grant Program	\$ 31,000	FDOT PT Block Grant	\$31,000.00	\$209,600.00	\$84,040.00
Corridor 6.1 Lady Lake to Wildwood (Sumter County Portion)	2015	\$260,000.00	\$ -	No	\$6,000.00	\$162,864.00	\$428,864.00	Service Development Grant Program	\$ 81,000	FDOT PT Block Grant	\$81,000.00	\$212,800.00	\$135,064.00
Corridor 6.2 Fruitland Park to Wildwood	2015	\$260,000.00	\$ -	No	\$8,000.00	\$256,824.00	\$524,824.00	Service Development Grant Program	\$ 128,000	FDOT PT Block Grant	\$128,000.00	\$214,400.00	\$182,424.00
Corridor 7.1 SR 50 BRT Orange County To Mascotte	2015	\$700,000.00	\$ 8,400,000	Yes	\$700,000.00	\$615,000.00	\$10,415,000.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$308,000.00	\$4,900,000.00	-\$2,885,000.00
Corridor 7.41 Cross County Connector Ph 1 BRT	2015	\$350,000.00	\$ 5,400,000	Yes	\$900,000.00	\$405,000.00	\$7,055,000.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$203,000.00	\$3,325,000.00	-\$1,670,000.00
Corridor 7.42 Cross County Connector Ph 2 BRT	2015	\$700,000.00	\$ 7,800,000	Yes	\$1,300,000.00	\$615,000.00	\$10,415,000.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$308,000.00	\$4,900,000.00	-\$2,285,000.00
Corridor 8.1 Rev SR 50 LRT Orange County Line to CR 33	2019	\$7,500,000.00	\$ 9,000,000	No	\$30,000,000.00	\$3,103,000.00	\$49,603,000.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$1,552,000.00	\$23,250,000.00	\$17,353,000.00
Corridor 8.1 SR 50 LRT Clermont P-N-R to Orange County Line	2019	\$2,500,000.00	\$ 3,600,000	No	\$12,000,000.00	\$2,073,500.00	\$20,173,500.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$1,037,000.00	\$9,050,000.00	\$7,523,500.00
Corridor 8.2 SR 50 LRT Clermont to Mascotte	2019	\$2,500,000.00	\$ 3,600,000	No	\$12,000,000.00	\$2,073,500.00	\$20,173,500.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$1,037,000.00	\$9,050,000.00	\$7,523,500.00
Corridor 8.3 SR 50 LRT to Mascotte	2019	\$1,250,000.00	\$ 1,800,000	No	\$12,000,000.00	\$594,500.00	\$15,644,500.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$297,000.00	\$7,525,000.00	\$6,319,500.00
Corridor 8.4 Cross County Connector LRT	2019	\$10,000,000.00	\$ 12,600,000	No	\$42,000,000.00	\$8,279,500.00	\$72,879,500.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$4,140,000.00	\$32,300,000.00	\$27,979,500.00
Corridor 9.1 Phase 1 NWCRT from Orlando to Zellwood	2015	\$10,500,000.00	\$ 8,000,000	Yes	\$4,000,000.00	\$3,900,000.00	\$26,400,000.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$1,950,000.00	\$11,250,000.00	\$7,150,000.00
Corridor 9.2 Phase 2 NWCRT from Zellwood to Eustis	2019	\$10,500,000.00	\$ 5,000,000	Yes	\$4,000,000.00	\$900,000.00	\$20,400,000.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$450,000.00	\$9,750,000.00	\$5,650,000.00
Corridor 9.3 Mount Dora Connection NWCRT	2019	\$3,500,000.00	\$ 3,000,000	Yes	\$1,000,000.00	\$500,000.00	\$8,000,000.00		\$ -	FTA New Starts 5309/ Intermodal Development	\$250,000.00	\$3,750,000.00	\$1,250,000.00
						\$9,324,624.00	\$35,984,624.00		\$2,712,000.00			\$14,578,000.00	\$10,694,624.00
						\$12,295,856.00	\$83,204,856.00		\$2,988,000.00			\$36,942,200.00	\$14,074,656.00
						\$13,530,992.00	\$95,312,992.00		\$3,297,000.00			\$42,700,600.00	\$11,715,392.00

**Table 9-21: Projected Revenues for Alternative #1**

Funding/Revenues												
<b>Operating Funding/Revenues (Paratransit)</b>												
<i>Federal Funding Sources</i>	\$ 80,000	\$ 53,896	\$ 52,110	\$ 55,102	\$ 58,094	\$ 61,086	\$ 64,078	\$ 67,070	\$ 70,061	\$ 73,053	\$ 76,045	\$ 79,037
<i>State Funding Sources</i>	\$ 2,589,784	\$ 2,318,467	\$ 2,831,195	\$ 2,993,744	\$ 3,156,294	\$ 3,318,843	\$ 3,481,392	\$ 3,643,941	\$ 3,806,491	\$ 3,969,040	\$ 4,131,589	\$ 4,294,139
<i>Local Funding Sources</i>	\$ 2,352,198	\$ 1,382,420	\$ 2,166,009	\$ 2,290,367	\$ 2,414,726	\$ 2,539,084	\$ 2,663,443	\$ 2,787,801	\$ 2,912,160	\$ 3,036,518	\$ 3,160,877	\$ 3,285,235
<i>Service Revenues</i>	\$ 352,000	\$ 362,560	\$ 374,912	\$ 396,437	\$ 417,962	\$ 439,487	\$ 461,012	\$ 482,537	\$ 504,062	\$ 525,588	\$ 547,113	\$ 568,638
<i>Other Revenues</i>	\$ 60,000	\$ 61,800	\$ 70,505	\$ 74,553	\$ 78,601	\$ 82,649	\$ 86,697	\$ 90,745	\$ 94,793	\$ 98,841	\$ 102,889	\$ 106,937
<b>Operating Funding/Revenues (Fixed Route)</b>												
<i>Federal Funding Sources</i>	\$ 1,117,964	\$ 1,067,628	\$ 1,700,000	\$ 1,759,500	\$ 1,821,083	\$ 1,884,820	\$ 1,950,789	\$ 2,019,067	\$ 2,089,734	\$ 2,162,875	\$ 2,238,575	\$ 2,316,926
<i>State Funding Sources</i>	\$ 20,764	\$ 270,254	\$ 1,000,000	\$ 1,035,000	\$ 1,071,225	\$ 1,108,718	\$ 1,147,523	\$ 1,187,686	\$ 1,229,255	\$ 1,272,279	\$ 1,316,809	\$ 1,362,897
<i>Local Funding Sources</i>	\$ 311,507	\$ 382,521	\$ 350,000	\$ 362,250	\$ 374,929	\$ 388,051	\$ 401,633	\$ 415,690	\$ 430,239	\$ 445,298	\$ 460,883	\$ 477,014
<i>Service Revenues</i>	\$ 66,444	\$ 74,881	\$ 65,000	\$ 67,275	\$ 69,630	\$ 72,067	\$ 74,589	\$ 77,200	\$ 79,902	\$ 82,698	\$ 85,593	\$ 88,588
<i>Other Revenues</i>	\$ -	\$ -										
<b>Total Operating Funding/Revenue</b>	<b>\$ 6,950,661</b>	<b>\$ 5,974,427</b>	<b>\$ 8,609,731</b>	<b>\$ 9,034,229</b>	<b>\$ 9,462,543</b>	<b>\$ 9,894,806</b>	<b>\$ 10,331,156</b>	<b>\$ 10,771,737</b>	<b>\$ 11,216,698</b>	<b>\$ 11,666,190</b>	<b>\$ 12,120,373</b>	<b>\$ 12,579,410</b>
<b>Capital Funding/Revenue (Paratransit)</b>												
<i>Federal Funding Sources (FTA)</i>	\$ 560,000	\$ 277,100	\$ -	\$ -	\$ -	\$ 393,797	\$ 834,865	\$ 1,786,080	\$ 548,303	\$ -	\$ -	\$ -
<i>State Funding Sources (FDOT)</i>	\$ 220,908	\$ -	\$ -	\$ -	\$ -	\$ 49,225	\$ 104,358	\$ 223,260	\$ 68,538	\$ -	\$ -	\$ -
<i>Local Funding Sources</i>	\$ 19,092	\$ -										
<b>Capital Funding/Revenue (Fixed Route)</b>												
<i>Federal Funding Sources (FTA)</i>	\$ -	\$ -	\$ 2,533,221	\$ 9,349,912	\$ 23,898,909	\$ 20,392,657	\$ 318,375	\$ 341,633	\$ 20,327,669	\$ 24,672,839	\$ 16,118	\$ 16,682
<i>State Funding Sources (FDOT)</i>	\$ -	\$ -	\$ 316,653	\$ 1,168,739	\$ 2,987,364	\$ 2,549,082	\$ 39,797	\$ 42,704	\$ 2,540,959	\$ 3,084,105	\$ 2,015	\$ 2,085
<i>Local Funding Sources</i>	\$ -	\$ -										
<b>Total Capital Funding/Revenue</b>	<b>\$ 800,000</b>	<b>\$ 277,100</b>	<b>\$ 2,849,873</b>	<b>\$ 10,518,651</b>	<b>\$ 26,886,272</b>	<b>\$ 23,384,762</b>	<b>\$ 1,297,395</b>	<b>\$ 2,393,677</b>	<b>\$ 23,485,468</b>	<b>\$ 27,756,944</b>	<b>\$ 18,133</b>	<b>\$ 18,767</b>
<b>Total Funding/Revenues</b>	<b>\$ 7,750,661</b>	<b>\$ 6,251,527</b>	<b>\$ 11,459,605</b>	<b>\$ 19,552,881</b>	<b>\$ 36,348,815</b>	<b>\$ 33,279,567</b>	<b>\$ 11,628,551</b>	<b>\$ 13,165,415</b>	<b>\$ 34,702,165</b>	<b>\$ 39,423,134</b>	<b>\$ 12,138,506</b>	<b>\$ 12,598,178</b>
<b>Funding/Revenue Surplus (Gap)</b>												
Operating Funding Surplus (Gap)	\$ (678,279)	\$ (2,095,128)	\$ 97,074	\$ (2,424,306)	\$ (2,531,839)	\$ (2,641,241)	\$ (3,678,818)	\$ (3,824,578)	\$ (3,973,545)	\$ (4,125,834)	\$ (6,785,371)	\$ (7,032,286)
Capital Funding Surplus (Gap)	\$ (554)	\$ (166,647)	\$ (316,653)	\$ (1,168,739)	\$ (2,987,364)	\$ (2,598,307)	\$ (144,155)	\$ (265,964)	\$ (2,609,496)	\$ (3,084,105)	\$ (2,015)	\$ (2,085)
<b>Total Funding Surplus (Gap)</b>	<b>\$ (678,279)</b>	<b>\$ (2,261,776)</b>	<b>\$ (219,578)</b>	<b>\$ (3,593,045)</b>	<b>\$ (5,519,202)</b>	<b>\$ (5,239,548)</b>	<b>\$ (3,822,973)</b>	<b>\$ (4,090,542)</b>	<b>\$ (6,583,042)</b>	<b>\$ (7,209,938)</b>	<b>\$ (6,787,386)</b>	<b>\$ (7,034,371)</b>

**Table 9-22: Projected Revenues for Alternative #2**

Funding/Revenues													
<b>Operating Funding/Revenues (Paratransit)</b>													
<i>Federal Funding Sources</i>	\$ 80,000	\$ 53,896	\$ 52,110	\$ 55,102	\$ 58,094	\$ 61,086	\$ 64,078	\$ 67,070	\$ 70,061	\$ 73,053	\$ 76,045	\$ 79,037	
<i>State Funding Sources</i>	\$ 2,589,784	\$ 2,318,467	\$ 2,831,195	\$ 2,993,744	\$ 3,156,294	\$ 3,318,843	\$ 3,481,392	\$ 3,643,941	\$ 3,806,491	\$ 3,969,040	\$ 4,131,589	\$ 4,294,139	
<i>Local Funding Sources</i>	\$ 2,352,198	\$ 1,382,420	\$ 2,166,009	\$ 2,290,367	\$ 2,414,726	\$ 2,539,084	\$ 2,663,443	\$ 2,787,801	\$ 2,912,160	\$ 3,036,518	\$ 3,160,877	\$ 3,285,235	
<i>Service Revenues</i>	\$ 352,000	\$ 362,560	\$ 374,912	\$ 396,437	\$ 417,962	\$ 439,487	\$ 461,012	\$ 482,537	\$ 504,062	\$ 525,588	\$ 547,113	\$ 568,638	
<i>Other Revenues</i>	\$ 60,000	\$ 61,800	\$ 70,505	\$ 74,553	\$ 78,601	\$ 82,649	\$ 86,697	\$ 90,745	\$ 94,793	\$ 98,841	\$ 102,889	\$ 106,937	
<b>Operating Funding/Revenues (Fixed Route)</b>													
<i>Federal Funding Sources</i>	\$ 1,117,964	\$ 1,067,628	\$ 1,250,000	\$ 1,293,750	\$ 1,339,031	\$ 1,385,897	\$ 1,434,404	\$ 1,484,608	\$ 1,536,569	\$ 1,590,349	\$ 1,646,011	\$ 1,703,622	
<i>State Funding Sources</i>	\$ 20,764	\$ 270,254	\$ 1,700,000	\$ 1,759,500	\$ 1,471,083	\$ 1,522,570	\$ 1,575,860	\$ 1,631,015	\$ 1,688,101	\$ 1,747,185	\$ 1,808,336	\$ 1,871,628	
<i>Local Funding Sources</i>	\$ 311,507	\$ 382,521	\$ 350,000	\$ 362,250	\$ 374,929	\$ 388,051	\$ 401,633	\$ 415,690	\$ 430,239	\$ 445,298	\$ 460,883	\$ 477,014	
<i>Service Revenues</i>	\$ 66,444	\$ 74,881	\$ 65,000	\$ 67,275	\$ 69,630	\$ 72,067	\$ 74,589	\$ 77,200	\$ 79,902	\$ 82,698	\$ 85,593	\$ 88,588	
<i>Other Revenues</i>	\$ -	\$ -											
<b>Total Operating Funding/Revenue</b>	<b>\$ 6,950,661</b>	<b>\$ 5,974,427</b>	<b>\$ 8,859,731</b>	<b>\$ 9,292,979</b>	<b>\$ 9,380,349</b>	<b>\$ 9,809,735</b>	<b>\$ 10,243,108</b>	<b>\$ 10,680,608</b>	<b>\$ 11,122,378</b>	<b>\$ 11,568,569</b>	<b>\$ 12,019,336</b>	<b>\$ 12,474,837</b>	
<b>Capital Funding/Revenue (Paratransit)</b>													
<i>Federal Funding Sources (FTA)</i>	\$ 560,000	\$ 277,100	\$ -	\$ -	\$ -	\$ 393,797	\$ 834,865	\$ 1,786,080	\$ 548,303	\$ -	\$ -	\$ -	
<i>State Funding Sources (FDOT)</i>	\$ 220,908	\$ -	\$ -	\$ -	\$ -	\$ 49,225	\$ 104,358	\$ 223,260	\$ 68,538	\$ -	\$ -	\$ -	
<i>Local Funding Sources</i>	\$ 19,092	\$ -											
<b>Capital Funding/Revenue (Fixed Route)</b>													
<i>Federal Funding Sources (FTA)</i>	\$ -	\$ -	\$ 2,800,976	\$ 9,349,912	\$ 25,100,847	\$ 20,999,393	\$ 903,624	\$ 341,633	\$ 20,327,669	\$ 24,672,839	\$ 16,118	\$ 16,682	
<i>State Funding Sources (FDOT)</i>	\$ -	\$ -	\$ 350,122	\$ 1,168,739	\$ 3,137,606	\$ 2,624,924	\$ 112,953	\$ 42,704	\$ 2,540,959	\$ 3,084,105	\$ 2,015	\$ 2,085	
<i>Local Funding Sources</i>	\$ -	\$ -											
<b>Total Capital Funding/Revenue</b>	<b>\$ 800,000</b>	<b>\$ 277,100</b>	<b>\$ 3,151,098</b>	<b>\$ 10,518,651</b>	<b>\$ 28,238,453</b>	<b>\$ 24,067,339</b>	<b>\$ 1,955,800</b>	<b>\$ 2,393,677</b>	<b>\$ 23,485,468</b>	<b>\$ 27,756,944</b>	<b>\$ 18,133</b>	<b>\$ 18,767</b>	
<b>Total Funding/Revenues</b>	<b>\$ 7,750,661</b>	<b>\$ 6,251,527</b>	<b>\$ 12,010,830</b>	<b>\$ 19,811,631</b>	<b>\$ 37,618,802</b>	<b>\$ 33,877,074</b>	<b>\$ 12,198,908</b>	<b>\$ 13,074,285</b>	<b>\$ 34,607,846</b>	<b>\$ 39,325,514</b>	<b>\$ 12,037,468</b>	<b>\$ 12,493,605</b>	
<b>Funding/Revenue Surplus (Gap)</b>													
Operating Funding Surplus (Gap)	\$ (678,279)	\$ (2,095,128)	\$ 347,074	\$ (2,360,017)	\$ (2,815,299)	\$ (2,934,622)	\$ (4,228,869)	\$ (4,393,881)	\$ (4,562,774)	\$ (4,735,685)	\$ (7,416,568)	\$ (7,685,575)	
Capital Funding Surplus (Gap)	\$ (554)	\$ (166,647)	\$ (350,122)	\$ (1,168,739)	\$ (3,137,606)	\$ (2,674,149)	\$ (217,311)	\$ (265,964)	\$ (2,609,496)	\$ (3,084,105)	\$ (2,015)	\$ (2,085)	
<b>Total Funding Surplus (Gap)</b>	<b>\$ (678,279)</b>	<b>\$ (2,261,776)</b>	<b>\$ (3,048)</b>	<b>\$ (3,528,756)</b>	<b>\$ (5,952,905)</b>	<b>\$ (5,608,771)</b>	<b>\$ (4,446,180)</b>	<b>\$ (4,659,845)</b>	<b>\$ (7,172,271)</b>	<b>\$ (7,819,790)</b>	<b>\$ (7,418,582)</b>	<b>\$ (7,687,660)</b>	

**Table 9-23: Projected Revenues for Alternative #3**

Funding/Revenues											
<b>Operating Funding/Revenues (Paratransit)</b>											
<i>Federal Funding Sources</i>	\$ 52,110	\$ 55,102	\$ 58,094	\$ 61,086	\$ 64,078	\$ 67,070	\$ 70,061	\$ 73,053	\$ 76,045	\$ 79,037	
<i>State Funding Sources</i>	\$ 2,831,195	\$ 2,993,744	\$ 3,156,294	\$ 3,318,843	\$ 3,481,392	\$ 3,643,941	\$ 3,806,491	\$ 3,969,040	\$ 4,131,589	\$ 4,294,139	
<i>Local Funding Sources</i>	\$ 2,166,009	\$ 2,290,367	\$ 2,414,726	\$ 2,539,084	\$ 2,663,443	\$ 2,787,801	\$ 2,912,160	\$ 3,036,518	\$ 3,160,877	\$ 3,285,235	
<i>Service Revenues</i>	\$ 374,912	\$ 396,437	\$ 417,962	\$ 439,487	\$ 461,012	\$ 482,537	\$ 504,062	\$ 525,588	\$ 547,113	\$ 568,638	
<i>Other Revenues</i>	\$ 70,505	\$ 74,553	\$ 78,601	\$ 82,649	\$ 86,697	\$ 90,745	\$ 94,793	\$ 98,841	\$ 102,889	\$ 106,937	
<b>Operating Funding/Revenues (Fixed Route)</b>											
<i>Federal Funding Sources</i>	\$ 1,250,000	\$ 1,293,750	\$ 1,339,031	\$ 1,385,897	\$ 1,434,404	\$ 1,484,608	\$ 1,536,569	\$ 1,590,349	\$ 1,646,011	\$ 1,703,622	
<i>State Funding Sources</i>	\$ 200,000	\$ 207,000	\$ 214,245	\$ 221,744	\$ 229,505	\$ 237,537	\$ 245,851	\$ 254,456	\$ 263,362	\$ 272,579	
<i>Local Funding Sources</i>	\$ 350,000	\$ 362,250	\$ 374,929	\$ 388,051	\$ 401,633	\$ 415,690	\$ 430,239	\$ 445,298	\$ 460,883	\$ 477,014	
<i>Service Revenues</i>	\$ 65,000	\$ 67,275	\$ 69,630	\$ 72,067	\$ 74,589	\$ 77,200	\$ 79,902	\$ 82,698	\$ 85,593	\$ 88,588	
<i>Other Revenues</i>											
<b>Total Operating Funding/Revenue</b>	<b>\$ 7,359,731</b>	<b>\$ 7,740,479</b>	<b>\$ 8,123,511</b>	<b>\$ 8,508,908</b>	<b>\$ 8,896,752</b>	<b>\$ 9,287,130</b>	<b>\$ 9,680,128</b>	<b>\$ 10,075,841</b>	<b>\$ 10,474,361</b>	<b>\$ 10,875,789</b>	
<b>Capital Funding/Revenue (Paratransit)</b>											
<i>Federal Funding Sources (FTA)</i>	\$ -	\$ -	\$ -	\$ 393,797	\$ 834,865	\$ 1,786,080	\$ 548,303	\$ -	\$ -	\$ -	
<i>State Funding Sources (FDOT)</i>	\$ -	\$ -	\$ -	\$ 49,225	\$ 104,358	\$ 223,260	\$ 68,538	\$ -	\$ -	\$ -	
<i>Local Funding Sources</i>											
<b>Capital Funding/Revenue (Fixed Route)</b>											
<i>Federal Funding Sources (FTA)</i>	\$ 3,348,727	\$ 9,349,912	\$ 33,186,616	\$ 24,409,102	\$ 11,438,096	\$ 947,365	\$ 12,553,702	\$ 24,672,839	\$ 16,118	\$ 16,682	
<i>State Funding Sources (FDOT)</i>	\$ 418,591	\$ 1,168,739	\$ 4,148,327	\$ 3,051,138	\$ 1,429,762	\$ 118,421	\$ 1,569,213	\$ 3,084,105	\$ 2,015	\$ 2,085	
<i>Local Funding Sources</i>											
<b>Total Capital Funding/Revenue</b>	<b>\$ 3,767,318</b>	<b>\$ 10,518,651</b>	<b>\$ 37,334,943</b>	<b>\$ 27,903,261</b>	<b>\$ 13,807,081</b>	<b>\$ 3,075,126</b>	<b>\$ 14,739,756</b>	<b>\$ 27,756,944</b>	<b>\$ 18,133</b>	<b>\$ 18,767</b>	
<b>Total Funding/Revenues</b>	<b>\$ 11,127,049</b>	<b>\$ 18,259,131</b>	<b>\$ 45,458,454</b>	<b>\$ 36,412,170</b>	<b>\$ 22,703,834</b>	<b>\$ 12,362,255</b>	<b>\$ 24,419,884</b>	<b>\$ 37,832,785</b>	<b>\$ 10,492,494</b>	<b>\$ 10,894,556</b>	
<b>Funding/Revenue Surplus (Gap)</b>											
<b>Operating Funding Surplus (Gap)</b>	<b>\$ (1,152,926)</b>	<b>\$ (4,405,612)</b>	<b>\$ (4,582,490)</b>	<b>\$ (4,763,665)</b>	<b>\$ (8,048,329)</b>	<b>\$ (8,347,022)</b>	<b>\$ (8,654,275)</b>	<b>\$ (8,970,389)</b>	<b>\$ (11,799,486)</b>	<b>\$ (12,221,895)</b>	
<b>Capital Funding Surplus (Gap)</b>	<b>\$ (418,591)</b>	<b>\$ (1,168,739)</b>	<b>\$ (4,148,327)</b>	<b>\$ (3,100,362)</b>	<b>\$ (1,534,120)</b>	<b>\$ (341,681)</b>	<b>\$ (1,637,751)</b>	<b>\$ (3,084,105)</b>	<b>\$ (2,015)</b>	<b>\$ (2,085)</b>	
<b>Total Funding Surplus (Gap)</b>	<b>\$ (1,571,517)</b>	<b>\$ (5,574,351)</b>	<b>\$ (8,730,817)</b>	<b>\$ (7,864,028)</b>	<b>\$ (9,582,449)</b>	<b>\$ (8,688,703)</b>	<b>\$ (10,292,026)</b>	<b>\$ (12,054,494)</b>	<b>\$ (11,801,501)</b>	<b>\$ (12,223,980)</b>	

## ***9.8 Recommended Alternative***

The various Alternatives were reviewed by the community and evaluated based upon the considerations described in **Section 8**. Criteria used to evaluate various transit service enhancements and corridors included, but were not limited to, the following:

1. Does it provide accessible service for transportation disadvantaged persons?
2. Does the alternative link people to jobs?
3. Does the alternative serve existing development or approved developments?
4. Does the alternative reinforce desirable development patterns?
5. Does this alternative serve employment centers and activity generators?
6. Is the alternative cost-effective?
7. Are there transit supportive densities in the vicinity?
8. Are there multimodal linkages in the vicinity?
9. Does it provide access to community facilities and social service organizations?
10. Does it serve unmet needs?
11. Is this service responsive to increasing travel demand?
12. Is the alternative financially feasible for the community?

Based upon this analysis, Alternative #1 has been recommended for implementation. This Alternative allows the community to focus service improvements where there is a significant transportation need, an opportunity to reinforce desirable development patterns, and improve the transit quality of service in the study area.

## Section 10.0 Implementation Action Plan

This Section of the 2020 Lake County Transit Development Plan (TDP) Update presents detailed implementation strategies for achieving the vision, mission, goals, and objectives identified in previous sections, in compliance with Section 14-73.001(3)(e) of the Florida Administrative Code (F.A.C.). This ten-year TDP is a guide for the future development and enhancement of public transportation in Lake County which must be locally adopted before any State grant funds may be allocated to the Public Transportation Division, per Section 14-73.001 (6)(f).

All modes and services needs were considered and evaluated as described in **Sections 5** and **8**. The Florida Department of Transportation approved the public involvement plan and the process utilized is described in **Section 6**. Earlier sections reviewed of demographic and travel behavior characteristics of the service area, an evaluation of existing services, a summary of local transit opportunities, the development of proposed transit enhancements, and the preparation of a ten-year financial plan that provides guidance for Lake County Public Transportation (LCPT) during the planning horizon. The TDP assesses the need for transit services in Lake County, identifies the policies, services, costs of proposed services, sources of funding, and this staged implementation plan. As such, the preparation and content of this TDP complies with the provisions of Chapter 14-73, F.A.C.

Based upon the regional visioning efforts associated with the *How Shall We Grow?* Study and comments received during the public outreach efforts associated with this update, it is clear that most citizens are supportive of investing in transit and are willing to pay additional fares or taxes to support the development of transit. Lake County citizens and community leaders are supportive of sustainable development patterns and smart growth for the future. They support growth in existing urbanized areas and want future development to protect the environment, address infrastructure needs, and handle anticipated travel needs of new residents. This TDP recommends a variety of transit improvements that will allow Lake County to attain these identified goals in a financially feasible manner. Still, the most significant potential obstacles for implementing this TDP will be financial and political support – particularly with Federal, State, and local budget cuts and declining gas and sales tax revenues. For this reason, the implementation action plan focuses on the budgetary analysis needed to finance existing, enhanced, and new transit services. Implementation of the planned projects will require the development of a new Transit Operations Plan, adoption of an updated Transportation Improvement Plan (TIP), and specific action by the local governments funding the proposed improvements.



## ***10.1 Policies for Achieving Provider Goals and Objectives***

Recommended improvements have been based on two primary considerations: need for service and financial feasibility. This TDP identifies LakeXpress service enhancements with a focus on existing routes to make service more convenient and reinforce current successes. The LakeXpress routes will be operated with the needs of transit-dependent populations as a focus to build ridership, but they will be designed to attract choice riders as well. Regional premium transit connections within Lake County and to adjacent counties have been identified as future opportunities for strategically expanding services. As such, Lake County and its funding partners will need to prepare for the implementation of the Cross County Connector Bus Rapid Transit (BRT) and Northwest Commuter Rail. The following policies have been identified to help Lake County achieve the goals and objectives identified in **Section 3**.

**Table 10-1: Transit Implementation Policies**

<b>Policy #</b>	<b>Implementation Strategy</b>	<b>Timeframe</b>
1.1.1	Examine how well transportation needs are being met by providing LYNX Route #204 - South Lake Express, after term of grant.	2009
1.2.1	Conduct on-board passenger survey on LakeXpress and LYNX #204/ #55.	2010
1.4.1	Conduct study of transit finance with local government partners.	2009
2.1.1	Prepare a Transit Operations Plan with a detailed operating characteristics, recommended stops, and refined cost estimates by 2011.	2009
2.1.2	Schedule quarterly LakeXpress coordination meetings to discuss the financial feasibility of transitioning the cost of operating LX Routes 2 and 3.	Ongoing
2.2.1	Examine proposed service plans and stop locations for ADA compliance.	Ongoing
2.3.1	Establish a committee and formal procedure for reviewing services and recommending modifications.	2010
2.4.1	As part of the annual TDP Update, re-examine regional transit connectivity and demand.	Annual
2.5.1	Establish LakeXpress partnership committee comprised of planners, engineers, and finance staff to examine the transit revenues and expenditures associated with proposed transit improvements.	2009
3.1.1	Re-evaluate performance standards after two full years of service (Route 1).	2009
3.1.2	Evaluate performance standards after two full years of service (Route 2).	2010
3.1.3	Evaluate performance standards after two full years of service (Route 3).	2011
3.1.4	Evaluate performance standards after two full years of service (Route 4).	2012
4.1.1	Submit regular press releases regarding LakeXpress service, ridership, routes, schedules, and stop locations.	Ongoing
4.3.1	Provide on-line survey and location for offering comments and questions.	Ongoing
4.4.1	Establish speakers' bureau to make LakeXpress presentations to associations.	Ongoing

**Table 10-1: Transit Implementation Policies (continued)**

<b>Policy #</b>	<b>Implementation Strategy</b>	<b>Timeframe</b>
4.7.1	Conduct a study and charrette to develop context sensitive design guidelines for LakeXpress stop types and design/advertising criteria.	2010
5.1.1	Meet with local government planners as they update their comprehensive plans and complete their required evaluation and appraisal reports.	Ongoing
5.3.1	Discuss upcoming LakeXpress service enhancements and new transit services with FDOT and PTO staff to identify grant requirements and timeframes.	Ongoing
5.4.1	Meet quarterly with local human service agencies to identify service needs, existing services, and avoid duplication of services.	Quarterly
6.1.1	Prepare a TDSP Update.	2010
7.1.1	Prepare a report summarizing public, quasi-public, and non-profit funding opportunities for planned transit improvements and distribute locally.	2011
7.2.1	Establish a speakers' bureau to discuss transit finance needs and opportunities.	2010
8.1.1	Conduct a study of transit-oriented development strategies to maximize transit ridership and reflect community design objectives.	2013
8.2.1	Coordinate with land use planners and the real estate community regarding the economic benefits inherent in mixed-use developments and strategic locations for future projects consistent with local comprehensive plans.	2013
8.3.1	Work with BPAC to continue to identify, plan, finance, and build sidewalks and bicycle facilities along existing and future public transportation corridors.	Ongoing
8.6.1	Conduct an advertising revenue opportunities analysis for Lake County.	2014
9.1.1	Schedule and hold a LakeXpress Transit Summit to discuss upcoming projects, strategies, opportunities, and financial considerations.	Annually
9.3.1	Coordinate local capital improvements budgets and annual capital improvement element updates with LakeXpress annual budget process.	Annually
9.6.1	Conduct land use planning summit to discuss transit oriented development opportunities and areas where high density development should be encouraged.	Bi-Annually
9.7.1	Identify upcoming transit vehicles needs and determine whether backlogs exist which would require schedule adjustments or encumbrances.	Annually
9.8.1	Schedule meetings with the Central Florida Commuter Rail staff to identify rail issues related to the development of the Northwest Commuter Rail project.	Ongoing
9.8.2	Conduct Northwest Commuter Rail Alternatives Analysis.	2009
9.8.3	Determine feasibility of submitting Small Starts application.	2010

## ***10.2 Transit Capacity and Quality of Service Evaluation***

This subsection describes the six levels of service measures identified in the *Transit Capacity and Quality of Service Manual*. These quantitative measures are used to for evaluating the quality of transit services provided. Each performance measure considers one aspect of transit service from the patron’s perspective; these measures include:

- Service frequency LOS;
- Hours of service LOS;
- Service area coverage LOS;
- Passenger loading LOS;
- Reliability LOS; and
- Transit versus auto travel time LOS.

Each LOS has a defined continuum from A to F, and much like letter grades, A stands for the highest LOS service and F indicates the lowest LOS.

### ***10.2.1 Existing LakeXpress LOS***

Despite the high ridership satisfaction levels indicated by the on-board surveys, the existing LakeXpress service is operating below a LOS of C for 4 of 6 measures. Service frequencies currently are at or exceed 60 minutes for all routes (LOS F), the hours of service are between 12 and 14 hours per day for all routes (LOS C and D), approximately 60% to 70% of the transit supportive areas are served (LOS C and D), and travel time differences are between 45 and 60 minutes longer than travel by car (LOS E and F). In terms of passenger loading and on-time reliability, LakeXpress Routes 1, 2, and 3 operate at LOS A/B and LOS A/B, respectively.

### ***10.2.2 Projected LakeXpress LOS***

Proposed improvements to LakeXpress Routes 1, 2, 3, and 4 would improve service frequency (LOS E), hours of service (LOS C), and transit versus auto travel times (LOS C). It is expected that reliability would remain high (LOS A/B). The service coverage will improve slightly as new services are added. Whereas, passenger loading is expected to decline as LakeXpress services becomes more popular.

### ***10.3 Innovative Transit Financing***

The traditional sources of funding for transit providers in Florida have been Federal and State grants. During the planning period, these traditional sources will be declining due to diminishing gas tax revenues, weakening sales tax revenues, as well as recently mandated budget cuts. As such, new sources of revenue and innovative uses of existing revenues to support transit services are needed. As Lake County transitions from a Rural to a Small Urban System, detailed and creative financial planning will be required as LakeXpress will no longer be eligible to receive several Federal and State sources for operating funds. Future funding strategies for public transportation will focus on the following: (1) streamlining services; (2) serving more TD populations; (3) addressing commuter demand; (4) focusing development along identified transit corridors; (5) obtaining developer contributions; (6) relieving congestion along major corridors; (7) providing transportation alternatives; and (8) focusing the County's limited financial resources on regional transportation linkages. Lake County and its funding partners will be able to build upon the recent LakeXpress successes to pursue transit service enhancements.

While Lake County will continue to operate all transit through a contract with M. V. Transportation, the cost for operating circulators will gradually be transferred to benefitting municipalities. To prepare for new public transportation expenditures, each local government will need to coordinate with Lake County and the Lake~Sumter MPO regarding anticipated costs and revenue sources. **Section 9** identifies a range of potential local funding sources. Each jurisdiction will need to conduct a thorough investigation into transit funding that is beyond the scope of this TDP. The financial analysis may be conducted individually or collectively by interested cities in Lake County to examine a number of funding strategies. Some of the most promising local government funding opportunities are described below. More traditional transit revenue sources are described in **Section 9**.

#### ***10.3.1 Traditional Federal Funding***

The federal government, through FTA, provides policy guidance and financial assistance to develop new transit systems and improve, maintain, and operate existing transit systems. The FTA oversees grants to state and local transit providers. These grantees are responsible for managing their programs in compliance with federal requirements and the FTA is responsible for ensuring the grantees follow federal mandates, statutes, and administrative requirements. The following is a brief summary of the federal financial assistance programs which provide the majority of the federal transit investment in Florida:

- The *Urbanized Area Formula Program* (49 USC 5307) provides funding to urbanized areas and governors for transit capital and operating assistance in urbanized areas (operating assistance is available in urbanized areas between 50,000 and 200,000 population) and for transportation related planning.
- The *Formula Grant for Other than Urbanized Areas* (49 USC 5311) provides funding to states for the purpose of supporting public transportation in areas of less than 50,000 in population. This program is administered by FDOT.
- The *Formula Grants for Special Needs for Elderly Individuals and Individuals with Disabilities Program* (49 USC 5310) provides funding for the purpose of assisting private non-profit groups in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. This program is administered by FDOT.
- The *Bus and Bus Related Facilities Program* (49 USC 5309) provides capital assistance to eligible recipients on a discretionary basis.

### ***10.3.2 Joint Development***

Joint development involves a partnership a transit provider and a developer to develop either real estate or some other asset owned by the transit agency. Joint development uses private funds to develop property resulting in both a profit for the developer and a developed property for the transit agency. An example is a surface park-and-ride lot that is developed with a new building and a parking structure with spaces to replace the surface parking spaces. The increased development may lead to increased ridership due to more intense development. Joint development can yield various results depending on the goals of the agency and one of the issues to be considered when undertaking joint development is which policies it wishes to further. The most common policy is one of increased revenues. Through leasing or other use of transit property, revenues can be generated. Another purpose of joint development may be increased ridership. By creating a higher density of residential or commercial areas around a transit facility, joint development can lead to increased ridership. Another purpose may be to enhance the transit facility itself. By converting a bare park-and-ride lot to a transit village with both commercial and residential facilities, the transit stop is made more attractive with added security and conveniences. Whereas, currently revenue generation is the primary focus of many transit

agencies today, enhancement of transit facilities and increased ridership may take preeminence over revenue considerations in the future.

### ***10.3.3 State Infrastructure Bank***

The State Infrastructure Bank (SIB) is a fund established to facilitate and encourage investment in eligible transportation infrastructure projects sponsored by public and/or private entities. Through a SIB, the initial capital provided by Federal transit allocations and non-Federal monies to: make loans, provide credit enhancement, serve as a capital reserve for bond or debt financing, subsidize interest rates, issue letters of credit, finance purchase and lease agreements, provide debt financing security, or provide other forms of financial assistance for construction of projects qualified under the Federal-aid highway program and transit capital projects.

### ***10.3.4 Redevelopment Areas***

In Florida, there are several strategies for encouraging redevelopment within existing urbanized areas. Traditionally, to establish Tax Increment Financing (TIF) a local government would have to create a Community Redevelopment Agency (or CRA). In 1999, the Florida State Legislature amended Chapter 163.2514 to add “Urban Infill and Redevelopment Areas” to the arsenal of redevelopment strategies. One advantage of the Urban Infill and Redevelopment Area’s over CRA’s is that the governmental structure can be much more flexible to include local stakeholders (and not be made up entirely by local government officials as with CRA’s). A local government may designate an urban infill and redevelopment area for the purposes of targeting economic development, job creation, housing, transportation, crime prevention, neighborhood revitalization, and encouraging redevelopment in the urban core.

A local government seeking to create an urban infill and redevelopment area must prepare a plan that describes the redevelopment objectives. Alternatively, the local government may demonstrate that an existing plan or combination of plans associated with the area, Main Street program, Front Porch Florida Community, sustainable community, enterprise zone, or neighborhood improvement district meets the requirements. A plan must demonstrate the community’s commitment to addressing the identified problems and prescribe activities to accomplish locally established goals such as code enforcement; improved educational opportunities; reduction in crime; neighborhood preservation; provision of infrastructure needs, including mass transit and multimodal linkages; and mixed-use planning to promote redevelopment to improve both the residential and commercial quality of life in the area. Any transportation concurrency exception areas and MPO-designated public transportation corridors

must be identified and multimodal alternatives being developed as an alternative to increased automobile use must be described.

A CRA is a dependent taxing district set up by the City (called the "governing body") for the purpose of eliminating slum and blight, enhancing the tax base and encouraging both public and private improvements in the CRA Area. The CRA is governed by State Statutes, Chapter 163, Part III. The CRA's source of revenue, with which it can deploy to make public improvements, is derived from tax increment. CRA's have been used by many cities in Florida to revitalize urban areas. An important part of creating a CRA is the preparation and adoption of a CRA Master Redevelopment Plan, which sets forth the programs for improvement for the redevelopment area. The Redevelopment Plan is a legal document that is required by State law to be approved by the City and the County. The plan sets forth the goals and objectives of the plan, generally to eliminate blight and to improve the economic conditions. Most importantly it sets forth the many programs for improvement. These programs may include street improvements, park improvements, marketing programs, housing programs, retail assistance and many others. The redevelopment plan will include a financing program and implementation schedule. A CRA is a very useful tool for a city to use in order to make changes in an economically dysfunctional area. While it is not the only tool the city has, it has proven to be a successful method to upgrade a depressed area. Many other cities have utilized their CRA to make significant improvements in their older urban areas, both commercial and residential.

### ***10.3.5 Multimodal Concurrency Management***

Significant population and employment growth will occur over the ten-year planning horizon in Lake County and the surrounding areas. A significant land area will not be developable due to conservation areas, natural lands, wetlands, and water bodies. These areas create a natural concentration of development in a more clustered pattern that is conducive to transit; however, local governments will need to develop transit oriented development strategies to reinforce natural tendencies. In particular, there are future opportunities to create multimodal transportation concurrency systems. In order to pursue these options, local governments need to adopt land development codes and comprehensive plan amendments which require new development to be more dense and intense in support of transit. The Lake~Sumter MPO will need to determine whether or not a multimodal transportation concurrency system is appropriate for Lake County and its municipalities. If implemented, a multimodal transportation concurrency district would be established so that developers would be required to fund the highest priority projects from the local capital improvements element for the district, regardless of proximity.

These funds could be used for transit, bicycle, pedestrian, and parking improvements that would offset the single-occupant vehicle demand.

## ***10.4 Land Use Strategies***

Lake County and the Lake~Sumter MPO have identified the provision of increasing public transportation services to serve both transportation disadvantaged (TD) and persons who choose transit over traveling alone in a car. Lake County residents have identified smart growth strategies to protect and enhance their quality of life, unique environmental features, water bodies, and conservation lands while providing for population and employment growth.

### ***10.4.1 Smart Growth Strategies***

As discussed previously, one outgrowth of the *How Shall We Grow?* Study is the adoption of smart growth principles for land development in Lake County. Smart growth principles are concepts that acknowledge the true cost of sprawl, both direct (cost of providing infrastructure) and indirect (adverse impacts on the environment and underutilization of land). It has a variety of applications; therefore the principles can vary, but often include:

*Anti-Sprawl:* Land use strategies pursue community redevelopment around traditional activity centers and high-density development in new developments. The approach grew out of a response to large lot, single-family tract housing with dead-end streets and cul-de-sacs.

*Infill and Preservation:* Proponents encourage the adaptive reuse of buildings and revitalization of existing cities and towns. Many preservation groups have promoted it as a strategy to save historic structures and restore traditional community centers.

*Mixed-Use Development:* Mixed-use projects are designed to include ground-floor retail with offices or housing on upper floors to combine uses and curtail single-use zoning practices.

*Land and Resource Conservation:* Conservation organizations seek concentrated development patterns that enable the preservation of farmland, natural resources, and open space in land trusts through deed restrictions, or through the purchase or transfer of development rights.

*Walking, Bicycling and Transit:* Development patterns shall be developed to promote walkable streets, facilities for bicycling, and transit connections.

*Affordable/Work Force Housing:* Land development patterns will be designed include a variety of housing types, affordable at a variety of income levels so that everyone who works in a



community may also live there. Building diverse and vibrant places with inclusionary zoning policies will require developer incentives to promote or require mixed-income housing.

Community Design/Public Process: Community design is a comprehensive strategy for addressing neighborhood livability and quality of life issues.

#### ***10.4.2 Transit Oriented Development Strategies***

Transit-oriented development (TOD) focuses development around transit corridors and transit stations. Groups that promote transit have adopted a variety of smart growth strategies to encourage accessibility and encourage transit use. To assuage single occupancy vehicle use and land development parking requirements associated with personal vehicle reliance, alternative transportation modes would be promoted through the built environment. The Lake~Sumter MPO could conduct design charettes with local government planners to develop coordinated land use plans, identify activity centers, coordinate development plans, and discuss future transit improvements in relation to proposed development projects. Personal vehicle reliance could be assuaged through targeted disincentives, while transit and alternative transportation modes could be encouraged by implementing certain commuter incentives. Specific TOD strategies may be more effective in Lake County based upon the outcome of a design charrette with local planners. The charrette should be designed to identify a range of land development code and comprehensive plan amendments that could be used by multiple jurisdictions to limit parking and encourage dense development reflecting smart growth principles.

#### ***10.4.3 Development Review***

As development occurs, local jurisdictions will be responsible for ensuring that new development is transit supportive and that anticipated LakeXpress transit improvements are integrated into the review process. This would be particularly important for developments of regional impact, large planned unit developments, and development in or adjacent to activity centers. Necessary improvements may include transit stops, passenger amenities, and bus pullouts. Transit vehicles and operating costs have been included as requirements of recent development orders. Additionally, multimodal considerations such as bicycle, pedestrian, and parking improvements may be required that would offset the single-occupant vehicle demand.

## ***10.5 Year By Year Implementation***

For the purposes of this TDP, specific strategies have been identified to implement this TDP through FY 2020. For each year, one table has been developed. Some implementation efforts are ongoing or annual. As such, some strategies appear in multiple tables below.

**Table 10-2: FY 2009 Implementation Action Plan**

<b>Action Items</b>	<b>Responsible Entity</b>	<b>Checklist</b>
Continue Operating Existing LakeXpress Fixed Bus Routes 1-3.	LCPT	
Re-Evaluate Performance Standards Based Upon Two Full Years of Service Data for LakeXpress Route 1 – Cross County Connector. Add St. John’s County Transit to List of Peer Transit Systems.	Lake~Sumter MPO	
Begin Operating LakeXpress Route 4 – Zellwood Connector, if FDOT Service Development Grant is Approved.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Rebrand Lake County Connection as Part of LakeXpress Service.	LCPT/Lake~Sumter MPO	
Bi-Annual FDOT Grant Applications for JARC and New Freedom	LCPT/Lake~Sumter MPO	
Reformat LakeXpress Route Map and Rider’s Guide in Compliance with <i>Governor’s Plain Language Initiative</i> .	Lake~Sumter MPO	
Conduct Charrette to Develop LDC Revisions and TOD for Site Plan Review in Coordination with Local Government Partners.	Lake~Sumter MPO	
Convene Regular Transit Funding Strategy Sessions to Plan for the Transition to a Small Urban System with Municipal Funding for Operations of Circulators (Coordinate with Local Finance Directors).	LCPT/Lake~Sumter MPO	
Conduct an Inventory of High Ridership Stop Locations.	LCPT	
Develop Vehicle Replacement Schedule Consistent with 12-Year Capital Acquisition Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT	
Meet with Neighboring Transit Systems to Coordinate Services.	LCPT	
Meet with LYNX to Coordinate Implementation of New Services.	LCPT	
Prepare Minor TDP Update in the Form of a Progress Report.	LCPT	
Continue to Develop and Expand Transit Marketing Program.	LCPT	

**Table 10-3: FY 2010 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Add Paratransit Reservations /Trip Planning Software to Website.	Lake~Sumter MPO	
Select Transit Stops to Study for Enhanced Passenger Amenities.	Lake~Sumter MPO	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Submit TRIP Application with Sumter County Transit for Green Route.	LCPT	
Identify with LYNX TRIP Funding Opportunities for New Services to Disney and/or Four Corners, as Appropriate.	LCPT	
Prepare Minor TDP Update in the Form of a Progress Report.	LCPT	
Continue Performance Monitoring Program for System and All Routes.	LCPT	

**Table 10-4: FY 2011 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Prepare for Service Enhancements to LakeXpress Services (Order New Vehicles, Build Stops, Prepare Schedules and Refine Operating Plan).	LCPT	
Review DRI's to Identify and Schedule Transit Improvements	Lake~Sumter MPO	
Bi-Annual FDOT Grant Applications for JARC and New Freedom	LCPT/Lake~Sumter MPO	
Lobby State Legislature Regarding Dedicated Local Transit Funding.	Lake~Sumter MPO	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Implement Paratransit Reservations System and Trip Planning Website Improvements for LakeXpress and Lake County Connection	LCPT, Lake~Sumter MPO	
Support Sumter County Transit Service Development Grants.	LCPT	
Meet with VOTRAN to Discuss Coordination Opportunities	LCPT	
Prepare Minor TDP Update.	LCPT	
Continue to Develop and Expand Transit Marketing Program.	LCPT	
Continue Performance Monitoring Program for System and All Routes.	LCPT	

**Table 10-5: FY 2012 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Transition to Modified LakeXpress Fixed Bus Routes and Enhance Services (Increased Hours of Operation and Reduce Headways).	LCPT	
Continue Operating Paratransit Services.	LCPT	
Evaluate Space Requirements for Intermodal Center (Program).	Lake~Sumter MPO	
Begin Operating New Services and LakeXpress Enhancements.	LCPT	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Identify List of Partnership and TRIP Funding Opportunities.	LCPT	
Discuss Enhanced Service Frequency for Route 204 with LYNX.	LCPT	
Prepare Minor TDP Update.	LCPT	
Continue Performance Monitoring Program for System and All Routes.	LCPT	

**Table 10-6: FY 2013 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Prepare for New Transit Services (Refine Operating Plan, Order New Vehicles, Build Stops, and Prepare Schedules).	LCPT	
Bi-Annual FDOT Grant Applications for JARC and New Freedom	LCPT/Lake~Sumter MPO	
Prioritize List of Proposed Transit Centers.	LCPT	
Conduct an Inventory of High Ridership Stop Locations.	LCPT	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Meet with Transit Systems in Neighboring Counties to Coordinate Services, as Appropriate.	LCPT	
Conduct Feasibility Study for SR 50 BRT Project with LYNX.	LCPT	
Prepare Major TDP Update.	LCPT	
Continue to Develop and Expand Transit Marketing Program.	LCPT	
Continue Performance Monitoring Program for System and All Routes.	LCPT	

**Table 10-7: FY 2014 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Work with Plaza Collina Regarding Transit Center Improvements.	Lake~Sumter MPO	
Conduct Charrette to Evaluate Transit Development Review Guidelines.	Lake~Sumter MPO	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Conduct BRT Alternatives Analysis for SR 50, as Appropriate.	LCPT	
Implement Express Bus Service to Disney, as Appropriate.	LCPT	
Prepare Minor TDP Update.	LCPT	
Continue Performance Monitoring Program for System and All Routes.	LCPT	

**Table 10-8: FY 2015 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Prepare for Implementation of New Services, as Appropriate.	LCPT	
Reformat and Publish Bus Rider's Guide with New Routes.	LCPT	
Bi-Annual FDOT Grant Applications for JARC and New Freedom	LCPT/Lake~Sumter MPO	
Identify Potential Locations for New Operations Base, as Appropriate.	Lake~Sumter MPO	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Meet with Transit Systems in Neighboring Counties to Coordinate Services, as Appropriate.	LCPT	
Meet with VOTRAN to Coordinate Implementation of New Services.	LCPT	
Prepare Minor TDP Update.	LCPT	
Continue to Develop and Expand Transit Marketing Program.	LCPT	
Continue Performance Monitoring Program for System and All Routes.	LCPT	

**Table 10-9: FY 2016 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Implement New Service, as Appropriate.	LCPT	
Design Intermodal Center.	LCPT	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Identify with Polk County TRIP Funding Opportunities for New <i>Four Corners</i> Services, as Appropriate.	LCPT	
Prepare Minor TDP Update.	LCPT	
Continue Performance Monitoring Program for System and All Routes.	LCPT	

**Table 10-10: FY 2017 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Bi-Annual FDOT Grant Applications for JARC and New Freedom	LCPT/Lake~Sumter MPO	
Meet with Transit Systems in Neighboring Counties to Coordinate Services, as Appropriate.	LCPT	
Develop Newspaper Advertisement and Additional Marketing of New LakeXpress Services, as Appropriate.	LCPT	
Prepare Minor TDP Update.	LCPT	
Continue to Develop and Expand Transit Marketing Program.	LCPT	
Continue Performance Monitoring Program for System and All Routes.	LCPT	
Coordinate with Central Florida Commuter Rail, METROPLAN Orlando, and LYNX Regarding Re-evaluation of Northwest Commuter Rail – Potential Small Starts Alternatives Analysis	Lake~Sumter MPO	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Submit New Starts application with Central Florida Commuter Rail for Northwest Commuter Rail or Other Services, as appropriate.	Lake~Sumter MPO	
Identify with TRIP funding opportunities for new services to Sanford and DeLand, as appropriate	LCPT	
Prepare Minor TDP Update.	LCPT	
Continue Performance Monitoring Program for System and all Routes.	LCPT	

**Table 10-11: FY 2018 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Implement new LakeXpress service to DeLand and Sanford, as appropriate.	Lake~Sumter MPO	
Development Conceptual Design for Park-and-Ride Improvements	LCPT	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Meet with Neighboring Transit to Coordinate Services as appropriate.	LCPT	
Meet with LYNX to coordinate implementation of new services	LCPT	
Prepare Major TDP Update.	LCPT	
Continue to Develop and Expand Transit Marketing Program.	LCPT	
Continue Performance Monitoring Program for System and all Routes.	LCPT	

**Table 10-12: FY 2019 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Bi-Annual FDOT Grant Applications for JARC and New Freedom	LCPT/Lake~Sumter MPO	
Implement new LakeXpress service, as appropriate.	LCPT	
Review Staff, Organizational, and Maintenance Requirements	Lake~Sumter MPO	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Investigate new transit funding sources such as dedicated funding.	Lake~Sumter MPO	
Prepare Minor TDP Update.	LCPT	
Continue Performance Monitoring Program for System and all Routes.	LCPT	

**Table 10-13: FY 2020 Implementation Action Plan**

Action Items	Responsible Entity	Checklist
Continue Operating Existing LakeXpress Fixed Bus Routes 1-4.	LCPT	
Continue Operating Paratransit Services.	LCPT	
Submit New Starts Application, as appropriate.	Lake~Sumter MPO	
Update Transit Development Plan	LCPT	
Conduct an Inventory of High Ridership Stop Locations	LCPT	
Continue Vehicle Replacement Program.	LCPT	
Meet Quarterly to Review Status of Implementation Plan.	LCPT, Lake~Sumter MPO	
Prepare Minor TDP Update.	LCPT	
Continue to Develop and Expand Transit Marketing Program.	LCPT	
Continue Performance Monitoring Program for System and all Routes.	LCPT	

### **10.5.1 Relationship Between the Implementation Program and Other Plans**

Various plans have been reviewed in conjunction with this update to insure consistency and the achievement of identified goals and objectives. As summarized briefly below, this TDP is consistent with the following:

1. *Transit 2020* component of the *Florida Transportation Plan*;
2. Approved local government comprehensive plans;
3. Lake~Sumter MPO's Long-Range Transportation Plan; and
4. East Central Florida Regional Planning Council's Strategic Regional Policy Plan.

This plan meets the requirements for a major TDP update in accordance with Chapter 14-73, F.A.C. The TDP also discusses the relationship between the ten-year implementation program and other local plans supporting the development of a cost feasible TIP.

The draft goals and objectives were reviewed to ensure consistency with other agency and government plans and programs including those of several municipalities, the Lake County Comprehensive Plan, the Lake~Sumter MPO 2025 Long Range Plan, the East Central Florida Regional Planning Council, and the Florida Department of Transportation. The goals and objectives were determined to be consistent with this TDP. Most notably, they address the



primary components of the needs plan included in the 2025 Long Range Plan which calls for establishment of a transit network to provide regional mobility concentrated along major travel corridors, the establishment of community based circulators.

### ***10.5.2 Florida Transportation Plan***

The ***Transit 2020*** is the transit element of the ***Florida Transportation Plan*** and it provides a framework for linking Florida's transportation goals to FDOT's annual budget and five-year work program. The primary purpose of ***Transit 2020*** is to support the development of a transit system that provides Floridians and visitors with an effective, efficient and customer-friendly transit service in a transit-friendly environment. This TDP supports the three key issue areas in Florida: (1) the level of transit service; (2) fund transit adequately and expand investment in public transportation; and (3) develop a multi-modal transportation planning process.

## ***10.6 Conclusions***

Lake County residents want public transportation that enhances service on existing routes and improves the convenience of transit throughout the community. Regional connections within Lake County and to adjacent counties have been identified as the focal point for strategically expanding services and gradually implementing premium transit services. The LakeXpress system will focus on improving regional mobility by investing in transit along major transportation corridors. These LakeXpress routes will be operated with the needs of transit-dependent populations as a focus to build ridership, but they will be designed to attract choice riders as well.

The State of Florida Public Transit Block Grant Program was enacted by the Florida Legislature to provide a stable source of state funding for public transportation. The Block Grant Program requires public transit service providers to develop and adopt a Ten-Year TDP. TDP updates must be submitted to the FDOT in the former of major or minor updates. This 2008-2020 Lake County TDP is a major update. The TDP is the source for determining the types of projects and their priority in the public transportation component of the Lake~Sumter Metropolitan Planning Organization's (MPO) Transportation Improvement Program (TIP).