CHAPTER 1

PURPOSE AND NEED FOR PROPOSED ACTION

1 PURPOSE AND NEED FOR PROPOSED ACTION

The Federal Transit Administration (FTA) is serving as the lead agency in the preparation of an Environmental Assessment (EA) for the Central Florida Commuter Rail Transit (CRT) project. The CRT project sponsors include the Florida Department of Transportation (FDOT), in association with the Central Florida Regional Transportation Authority (LYNX), Volusia County Public Transit System (VOTRAN), METROPLAN ORLANDO (MPO), Volusia County Metropolitan Planning Organization, and the counties of Orange, Osceola, Seminole and Volusia. The EA is being prepared to provide more detailed environmental analyses for the proposed commuter rail service between the DeLand Amtrak station in Volusia County and the Poinciana Industrial Park in Osceola County, Florida. A regional map (Figure 1-1) identifies the project study area.

This project has been the subject of several previous analyses, the most recent of which resulted in the designation of a Locally Preferred Alternative (LPA), or the preferred build project selected by local and regional decision makers and adopted by the MPO in its financially constrained metropolitan transportation plan. In 2004, the North-South Commuter Corridor Alternatives Analysis assessed the mobility needs in the corridor and recommended an LPA. As the LPA would utilize an existing active freight rail line, FDOT requested, and the FTA Regional office concurred that an EA would be the appropriate next step in the environmental approval process.

1.1 Purpose

The commuter rail project proposes an alternative mode of transportation to improve the mobility of travelers along Interstate 4 (I-4) and other major roadways within the Orlando Metropolitan Region, including, but not limited to, US 17/92, US 441, Orange Avenue, and SR 434 (Forest City Road), which are parallel facilities to the Interstate. The study corridor, which is the primary travel corridor in the region, is highly congested and experiences poor highway levels of service all during the day, especially in the morning, mid-day and afternoon peak hours. This traffic congestion inhibits travel mobility, causes longer and more frequent delays, emergency response time delays, impairs air quality, wastes fuel and personal time, stifles economic growth and diminishes the overall quality of life. The proposed CRT project would connect the region's primary residential communities of Volusia, Seminole, and Osceola Counties, to the urban core in Orange County and the City of Orlando.

The regional transportation system has not kept pace with the area's growth and travel demands. The regional activity centers and the high intensity land uses in the project corridor are not well connected by the existing transportation network. In addition, the level of public transit services provided within the corridor is insufficient to meet the growing mobility needs of the corridor workforce, visitors, and transit-dependent population. The proposed CRT Project assists in addressing these issues. The project meets the following goals, which were developed with the public as well as regional and local stakeholder input.

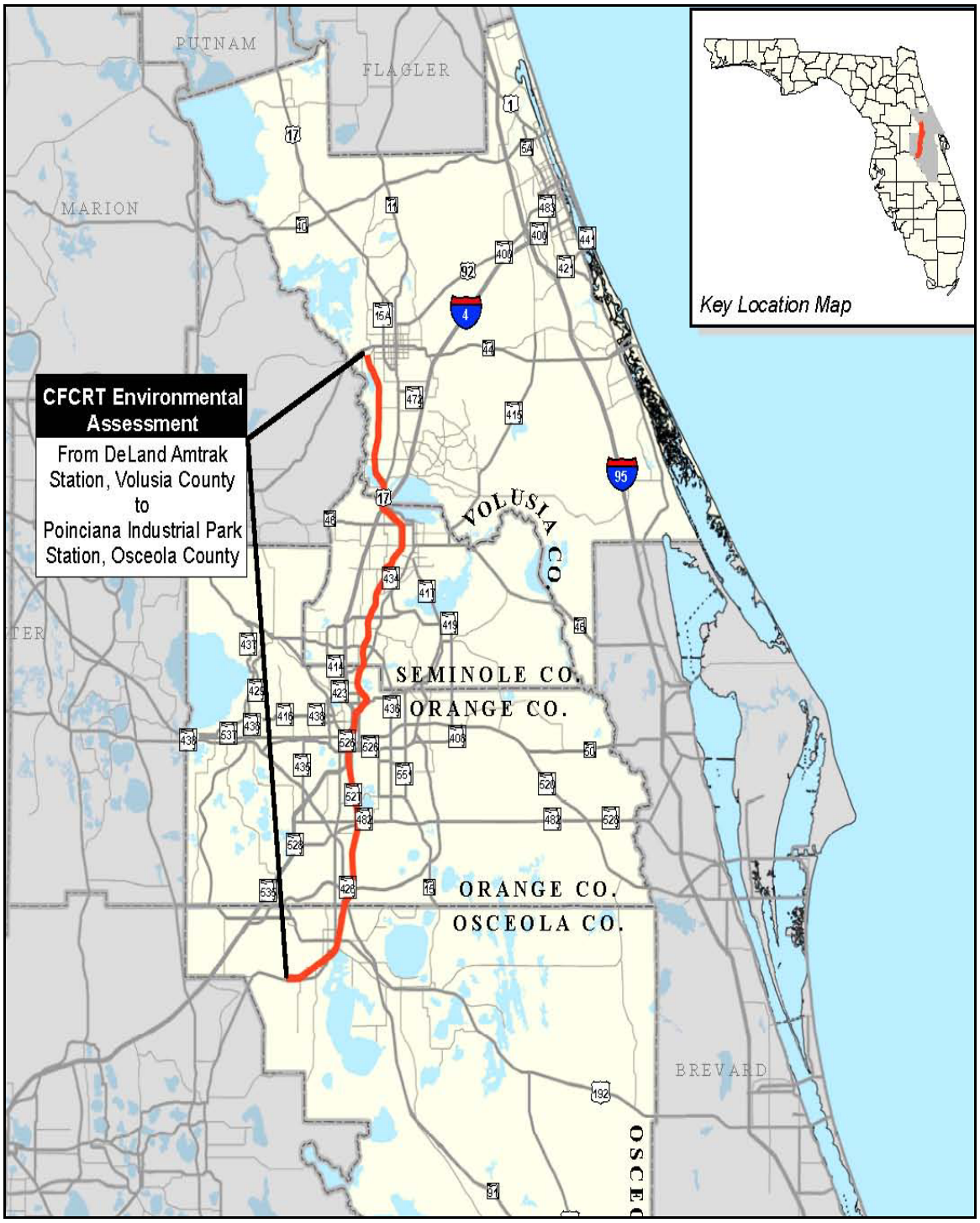


Figure 1-1 Regional Location Map

CFCRT Goals are as follows:

- Provide an alternative mode of transportation between DeLand in Volusia County and Poinciana Industrial Park in Osceola County to the employment and activity centers within the Orlando Metropolitan area.
- Provide high capacity, fast, convenient and reliable commuter rail service in the congested Interstate 4 corridor thereby minimizing travel time and developing an integrated regional transit system.
- Assist in the implementation of regional and local growth management plans through more intense land uses and Transit Oriented Development (TOD) practices at the activity center station locations.
- Implement a financially feasible multi-modal transportation system that includes commuter rail and the corresponding growth management plans with established goals, objectives and policies in the four counties and respective cities.
- Provide an efficient regional transit system that is consistent with local transportation and community based plans and regarded as a good investment.
- Protect and preserve the environment and improve the areas quality of life.

1.2 Description of Project

The CRT Project is proposed to operate on the existing CSX Transportation, Inc. (CSXT) A-line rail corridor from the existing DeLand Amtrak station in Volusia County, south through downtown Orlando and Kissimmee until its terminus approximately 5 miles south of Kissimmee at the Poinciana Industrial Park at the intersection on US 17/92 and the CSXT tracks in Osceola County (See Figure 1-2). This 60.8-mile corridor is the same as the final Build Alternative identified in the 2004 Alternatives Analysis report.

While labeled “Commuter Rail” due to its future utilization of existing freight rail tracks and use of Federal Railroad Administration (FRA) compliant vehicles, the CRT project is truly anticipated to function differently than the traditional US commuter rail experience. The proposed service functions more like “light rail” or “urban rail” than commuter rail because of the multiple stops in the downtown area (four), the frequency of stops (16 in 60.8 miles, 10 in 31 miles), density and intensity of land use adjacent to the corridor and station locations concentrated in recognized activity centers (nine). In fact, much of the alignment was contained in the region’s previous Light Rail Transit proposal. The CRT will serve as commuter rail in the outskirts of the region given the approximately 30 miles from the end stations to the urban core. Then the project will function more like “light rail” at 11 of the 16 proposed stations with 15-minute peak and 30 to 60-minute train headway.

The CRT corridor generally parallels Interstate 4 and US 17/92 and contains some of the area’s most intensely and densely developed land use. The width of the study area generally includes the major north-south arterial roadways serving downtown Orlando and other major activity centers, principally Interstate 4, US Route 17/92, and SR 434/Forest City Road in the northern portion of the corridor and State Routes 421, 441, 423, 527, and the Florida Turnpike in the southern portion of the corridor.

The purpose of the EA is to assess the potential impacts of the Project's Full Build Alternative. This is the maximum project that would be built and operated, given the

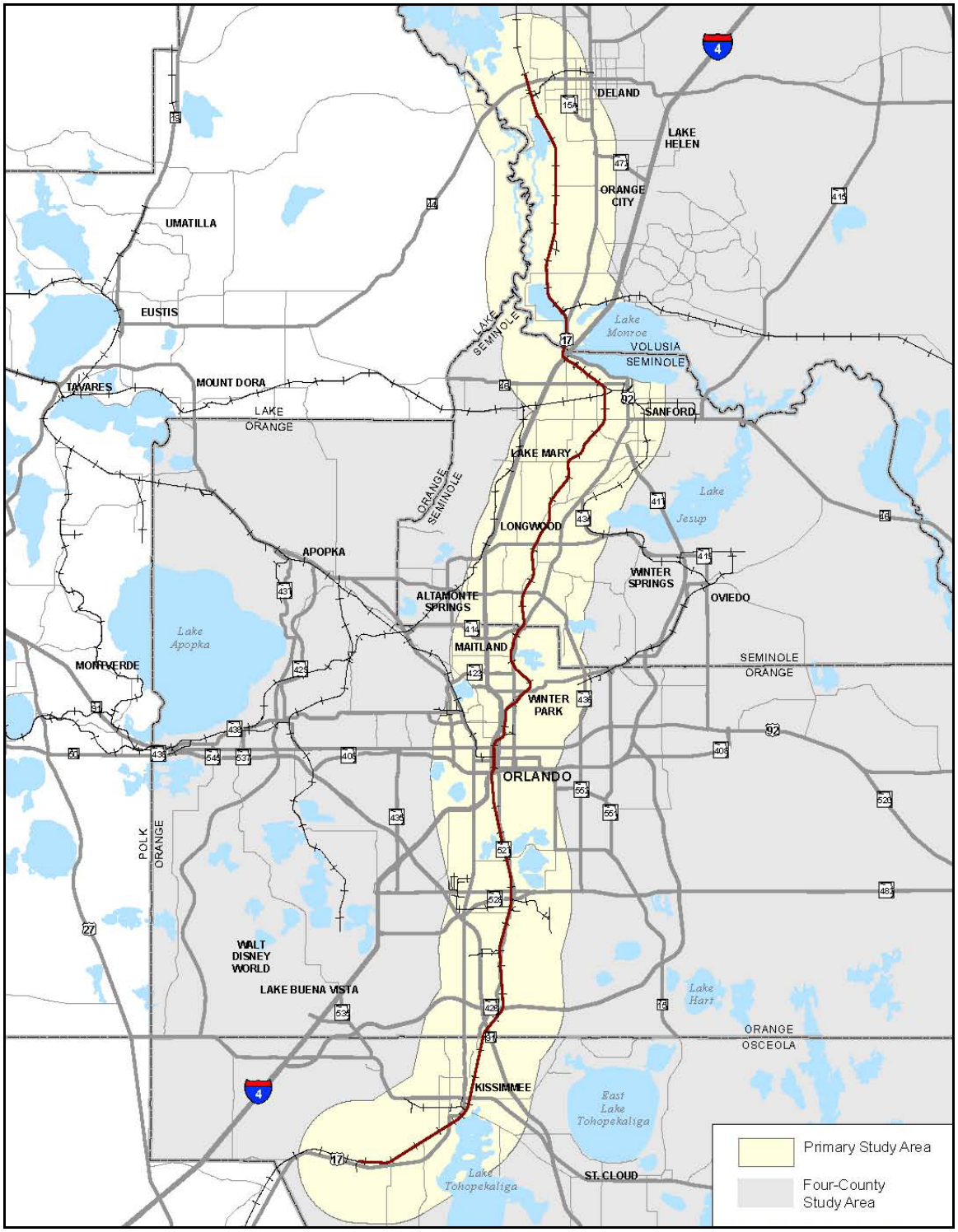


Figure 1-2 Project Study Area

current limits of the CRT Project. The Full Build is the 60.8-mile line between DeLand Amtrak Station and Poinciana Industrial Park.

The communities potentially impacted by the CRT are DeLand, Orange City, and DeBary, in Volusia County; Sanford, Lake Mary, Longwood, Altamonte Springs, and Casselberry in Seminole County; Maitland, Winter Park, Orlando, and Edgewood in Orange County; and Kissimmee in Osceola County.

For the purpose of this EA Full Build analysis, the CRT service includes sixteen station stops with a bi-directional service (on weekdays only) at 15-minute peak period and 60-minute midday and evening service frequencies. The LPA includes fifteen stations with 30-minute bi-directional service during weekday peak hours and 120-minute service during the midday. Commuter rail service would be operated with Federal Railroad Administration (FRA) compliant Diesel Multiple Unit (DMU) cars.

The CRT project proposes 16 stations (see Figure 1-3) at the following locations:

- Existing DeLand Amtrak Station
- DeBary Station - at the Saxon Boulevard Extension
- Sanford/SR 46 Station - near the intersection of SR 46A/Airport Road
- Lake Mary Station - near the Lake Mary Boulevard/ Country Club Road at-grade railway crossing
- Longwood Station - near the intersection of CR 427/Ronald Reagan Boulevard and SR 434
- Altamonte Springs Station - near the intersection of SR 436 and CR 427/ Ronald Reagan Boulevard
- Existing Winter Park Amtrak station
- Florida Hospital Station - near Rollins Street at-grade railway crossing
- LYNX Central Station - between Amelia Street and Livingston Street in downtown Orlando
- Church Street Station – between Church Street and South Street adjacent to the railway tracks
- Existing Orlando Amtrak/ORMC Station
- Sand Lake Road Station - near the intersection of Orange Avenue
- Meadow Woods Station - near the intersection of S. Orange Avenue
- Osceola Parkway Station - near the intersection of John Young Parkway

- Existing Kissimmee Amtrak Station
- Poinciana Industrial Park Station - near the intersection of US 17/92 and Poinciana Boulevard.

1.3 Relevant Corridor Planning Activities

The development of CRT service along this corridor has been the topic of several studies. The *Project Feasibility Report* (1992) by the Central Florida Commuter Rail Authority (CFCRA), and the *Regional Systems Plan* adopted by LYNX in 1994 examined the feasibility of providing transit service via various technologies in several corridors around the Central Florida area. Based on these and other studies, the *Central Florida North-South Commuter Corridor Alternatives Analysis*, completed in 2004, identified the commuter rail alternative and various end points for the project within the north-south corridor, and evaluated the potential impacts of such a project.

Notable measures taken during more than a decade of planning in the corridor include:

- Project Feasibility Report, finalized in March of 1992 by the CFCRA, and the Regional Systems Plan, adopted by LYNX in 1994. The Regional Systems Plan included approximately 52 miles of Light Rail Transit, 105 miles of Commuter Rail Transit, an increase to a bus fleet of 600 vehicles, and implementation of seven activity center circulators.
- Commuter Rail project given Federal authorization in 1998 as a component of the Central Florida Rail System in the Transportation Equity Act for the 21st Century (TEA-21).
- Volusia County Preliminary Rail Feasibility Study in 1999 looked at the potential of CRT service between downtown Orlando and DeLand. Subsequently, LYNX staff prepared a technical assessment on the potential of extending the service south to the Kissimmee and Celebration areas.
- A proposed 14-mile segment of LRT was rejected by the Orange County Commission in January 2000. Work began on the CRT component of the Central Florida Rail Transit System as the CRT project.
- Central Florida North-South Commuter Corridor Alternatives Analysis completed in mid-2004, identified Full Build CRT between DeLand and Poinciana Boulevard and recommended LPA between DeBary in Volusia County and Poinciana Boulevard in Osceola County.
- The CRT project was included in the METROPLAN ORLANDO *Year 2025 LRT Plan* adopted in June 2005.
- Volusia County MPO *2025 Cost Feasible LRTP* includes commuter rail from Saxon Boulevard Extension to Downtown Orlando – November 2005.

These major planning studies have provided the basis to the development of the EA for the commuter rail system from DeLand to Poinciana Industrial Park.

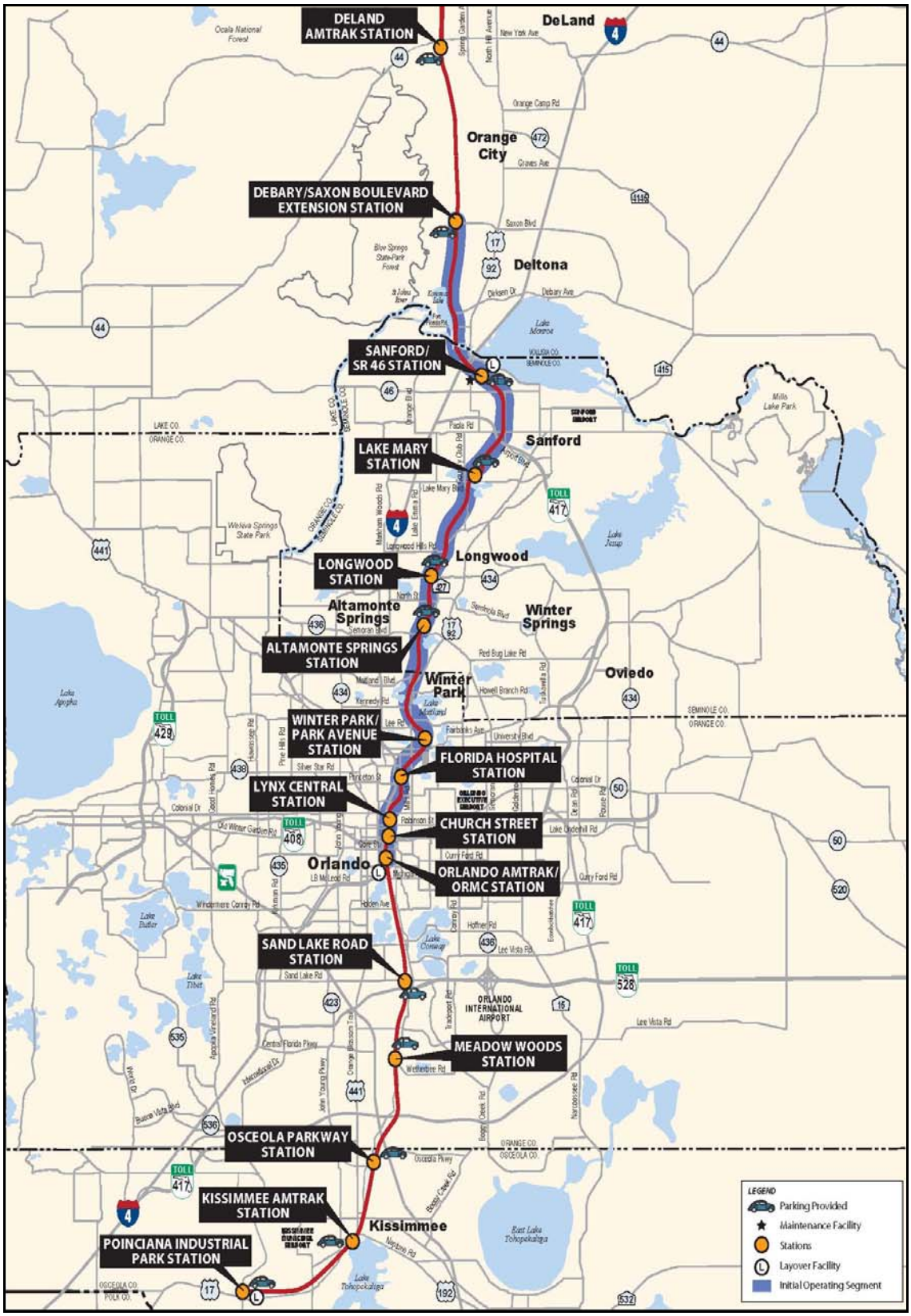


Figure 1-3 CRT Stations

1.4 Need for Transportation Improvements

Non-automotive, alternative transportation modes within the Orlando Metropolitan Region are greatly needed due to a high level of roadway congestion on I-4 and other major roadways in the area. Population and employment growth within the region, combined with increased vehicle trips per capita and longer trip lengths are the cause of the growing traffic congestion. Congestion diminishes travel mobility, results in longer and frequent roadway delays, impairs emergency response times, and wastes fuel and personal time. This can impact economic growth, and the overall quality of life.

The segment of Interstate 4 within the project area carries 238,000 vehicles per day. This is projected to increase to approximately 440,000 vehicles per day in 2025. Even with the proposed I-4 improvements, the projected Level of Service (LOS) for the general use lanes (GUL) remains an LOS F.

1.4.1 Roadways and Traffic

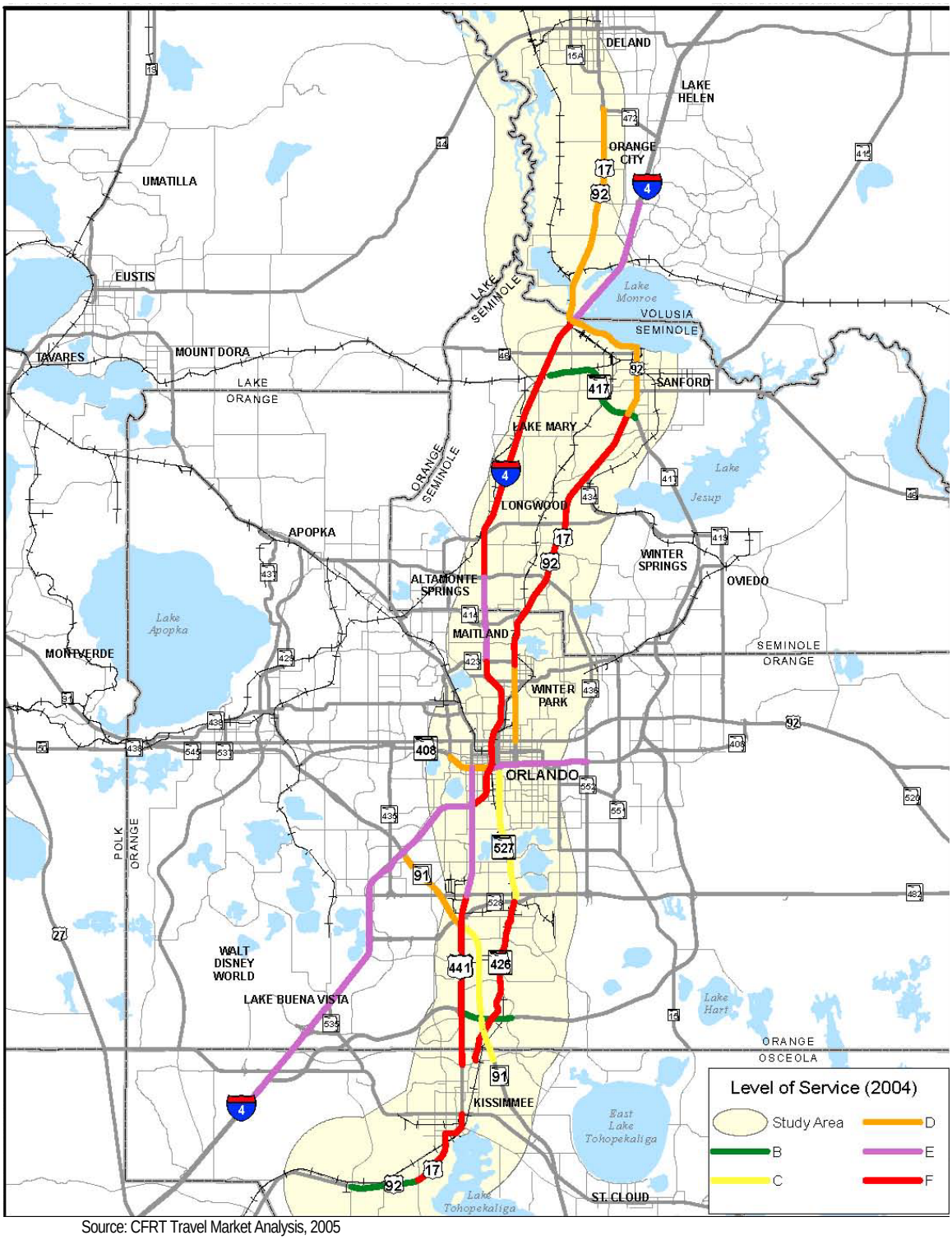
I-4 is the major roadway connector in the study area and runs northeast and southwest in a diagonal direction from the Polk County line through Orlando and Central Florida. Interstate 4 is a limited access freeway with six to eight lanes. Interstate 4 consists of 73 miles of roadway that accommodates an average of 1.53 million trips daily in Osceola, Orange, Seminole, and Volusia counties. Studies have shown that 58 percent of the daily drivers on I-4 are commuters, 12 percent are non-work related drivers and commercial vehicles traveling to the area, and 30 percent are tourists. Over the next 20 years, FDOT will reconstruct 73 miles of I-4 from the Central Florida attractions area (Osceola/Polk County line) to Daytona (I-95).

While these improvements to I-4 are projected to increase capacity and significantly reduce overall delay in the corridor, future increases in population and employment growth in the region will offset these capacity upgrades and result in I-4 only maintaining a LOS F during peak hours of travel. The ability to widen the parallel arterials is extremely limited. Widening of the arterials in the urban core is likely to be either prohibitively expensive, or result in unacceptable levels of impact and displacement. As such, additional modal options are necessary along this corridor to accommodate future growth. Furthermore, north-south travel in the region will be significantly hampered during the construction of the I-4 projects. The proposed LPA will provide one tool for the maintenance of traffic in the Interstate 4 corridor during reconstruction

Existing Conditions

As shown graphically in Figure 1-4, existing traffic volumes are LOS E or LOS F on most major roadway segments throughout the study area. In the northern portion of the study area the West Volusia portion of I-4 is at LOS E; the Seminole County portion of I-4 is at LOS F; and the northern Orange County portion of I-4 is at LOS E. I-4 is LOS F through the center of downtown Orlando to just west of SR 535. Similarly, the northern portions of US 17/92 are congested or above capacity with West Volusia County at LOS D; Seminole County at LOS F, and north Orange County at LOS F.

In the southern portion of the study area US 441 is currently at LOS E in one segment and LOS F in the two other segments shown. SR 527 is at LOS C in one segment, but LOS F between SR 482 and the Osceola Parkway.



Source: CFRT Travel Market Analysis, 2005

Figure 1-4 Existing Level of Service

Future Conditions

As shown graphically in Figure 1-5, future traffic volumes projected to 2025 show significantly higher volumes on the same roadway segments, and far more roadway segments in the corridor operating at LOS F compared to today. In the future, the number of identified roadway segments in the table increases to 25 with the addition of the two HOV lanes on I-4, both of which are projected to operate at LOS D on a daily basis, and worse during the peak. The Seminole County portion of I-4 will continue to operate at LOS F in the future, as will the segments through Orange County until just west of US 192 in Osceola County. The northern portions of US 17/92 will fare much worse in the future with traffic conditions deteriorating further to LOS F in all four segments identified throughout Seminole and Orange Counties. The segment of US 17/92 in north Orange County is projected to have daily traffic volumes greater than 150% above capacity.

In the southern portion of the study area, all three identified segments of US 441 will operate at LOS F, with the segment south of SR 417 operating at 133% of capacity. SR 527 will deteriorate to LOS D in one segment and worsen to LOS F between SR 482 and the Osceola Parkway.

1.4.2 Transit Services

LYNX and VOTRAN

The Central Florida Regional Transportation Authority (CFRTA) is commonly known as LYNX and provides fixed-route bus services and paratransit services in Seminole, Osceola and Orange Counties and limited express service in Volusia County.

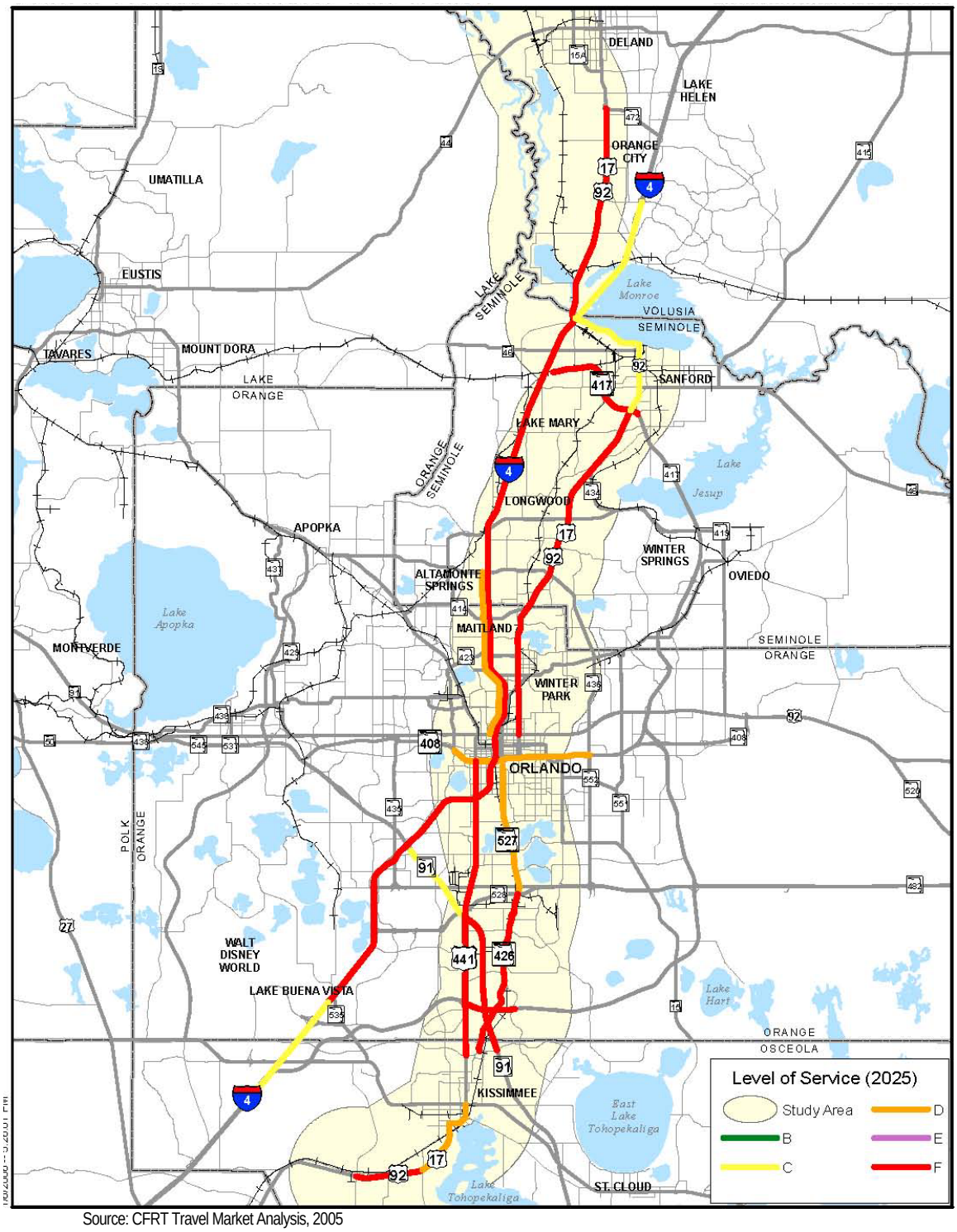
The CFCRT EA includes planned improvements to the LYNX and VOTRAN transit systems that are included in their current transit development plans (e.g., LYNX's Transportation Development Plan for Fiscal Years 2005-2009) plus selected projects and services that are likely to be implemented in the next twenty years. These additional projects include the addition of two express bus routes serving the Orlando International Airport (one to downtown Orlando and the other to International Drive) and Flex Bus routes in Altamonte Springs and Maitland.

The CFCRT Study Area is generally well served by fixed route bus transit operated by LYNX and VOTRAN. The background and feeder bus network for the "Full" Build Alternative would require 376 peak buses for LYNX and 22 peak buses for VOTRAN's West Volusia County service. The bus network would be modified to provide transfer connections to nearby commuter rail stations. In most cases, this involves minor route deviations or short route extensions to serve the proposed stations. The "Full" Build Alternative does not require any new fixed routes above those featured in the No-Build Alternative.

Amtrak

There are three Amtrak routes that operate through Central Florida. Amtrak currently operates along the CSXT freight line within the study corridor, but the schedules, frequency, station locations, and fare structure are intended to serve a long-haul intercity travel market. The service does not serve the access and mobility needs of the corridor.

Moreover, Amtrak service is not capable of being scaled up to meet corridor needs due to significant institutional, infrastructure, rolling stock, and financial constraints



Source: CFRT Travel Market Analysis, 2005

Figure 1-5 Projected Level of Service

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1.5 Population and Employment

The study corridor is vital to the communities in which it is located and the expected increase in population remains concentrated in the corridor. The population in the corridor is projected to be 22% of the total regional growth. Likewise, 68% of employment within the study area is projected to be located within the CSXT corridor. The corridor is a major growth destination with a clearly established need for more mobility options for commuters to reach employment centers.

Data in the Orlando Urbanized Area Transportation Study (OUATS) projects the following:

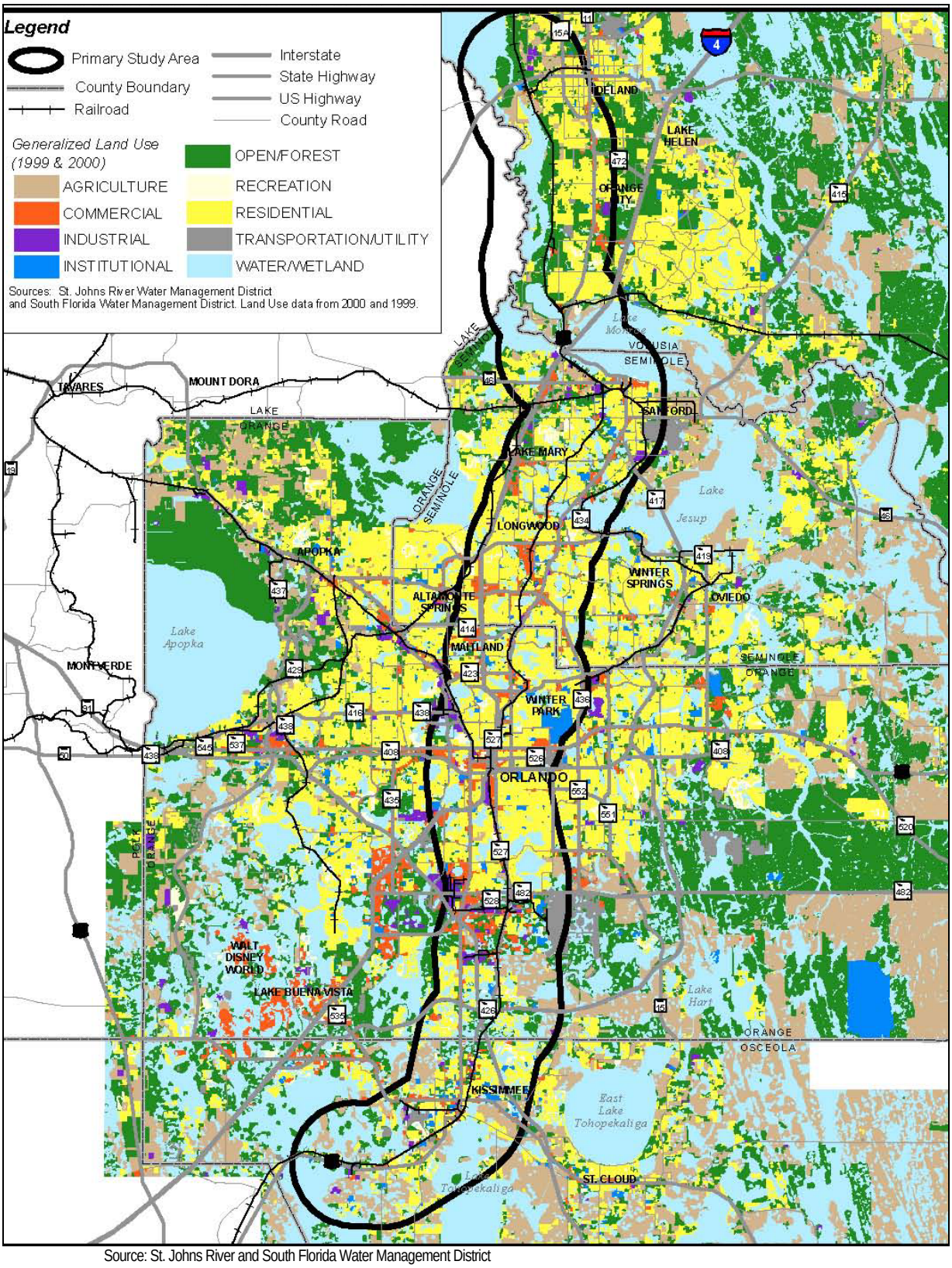
- By 2025, the region's population is projected to increase (56%) to 2,408,170 people.
- By 2025, the region's employment is projected to increase (83%) to 596,656 employees.

1.6 Land Use

Existing land use information was based on review of current Geographic Information System (GIS) land use data files obtained from the St. Johns River Water Management District (WMD), which includes most of the study area, and the South Florida WMD, which covers the balance. Figure 1-6 presents the generalized existing land uses within the project study area.

A variety of existing land uses occur within the project study area. The northern portion in Volusia County includes the cities of DeLand, DeBary and Orange City. This area includes larger tract residential areas, with some industrial development in the US 17/92 corridor and areas of conservation along the west border of the study area. Through Seminole and Orange Counties, the corridor is characterized by urbanized development with a mix of residential, commercial and industrial land uses in Sanford, Lake Mary, Altamonte Springs, Maitland, and Winter Park. The density of development increases in downtown Orlando, with major commercial office space and institutional uses such as regional hospitals.

The southern portion of the study area in Orange County is distinguished by the industrial uses associated with Orlando International Airport, freight rail related uses around Taft Yard and the residential and commercial districts of the cities of Belle Isle and Edgewood, as well as the larger mixed use developments of Meadow Woods and Hunter's Creek. Osceola County is characterized by the established activity center in Kissimmee and the growing residential area of Poinciana, as well as agricultural uses transitioning to residential and commercial. This development pattern serves to satisfy demand pushed further from the urban core by rising land and housing prices, a trend seen throughout Central Florida.

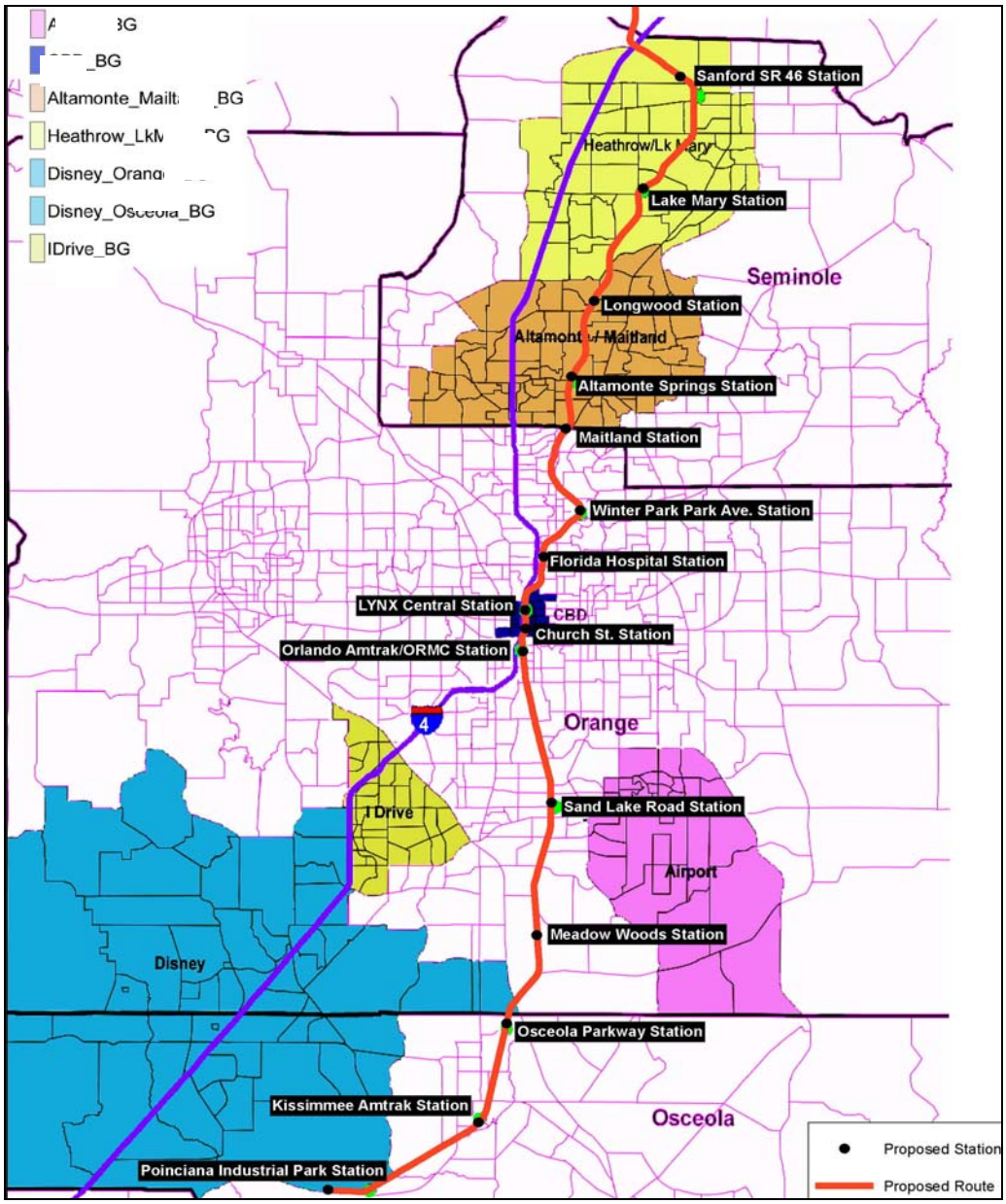


Source: St. Johns River and South Florida Water Management District

Figure 1-6 Generalized Land Use

1.6.1 Activity Centers and Developments of Regional Impacts

Over the past two decades, activity centers have become one of the most dominant land use features in Central Florida. These centers represent a concentration of residential, business, and office/industrial land uses. Under the State Growth Management Act (GMA), all local jurisdictions are required to develop and adopt a comprehensive Growth Management Plan (GMP). Activity centers are one of the tools being used to promote higher density development and transit friendly development in the urban parts of the region in which much of the study area is located (see Figure 1-7). The counties and municipalities in the study area have plans and policies that work to concentrate trip attractions into the centers.



Source: CFCRT Travel Market Analysis, January 2005

Figure 1-7 Major Employment & Activity Centers

1.7 Role of the EA in Project Development

The EA is an important step in the project development process mandated by the National Environmental Policy Act (NEPA) of 1969, as amended, as well as Florida regulations. The EA is a full disclosure document that provides information on the evaluation of reasonable alternatives and the assessment of transportation and environmental impacts for each of the identified alternatives. The required circulation and review procedures assist the public participation process and should result in comments that help guide the decision-making process.

Similarly, the identification, examination, and assessment of alternatives are also required by Federal and state regulations. Assessment of environmental impacts of the alignment alternatives serves to identify the type and severity of environmental consequences leading to or supporting the selection of a Preferred Alignment. Mitigation strategies for unavoidable impacts will be identified in the EA. These are refined in subsequent project phases, together with estimates of the costs and effectiveness of such mitigation measures.

This EA will be circulated to Federal, state, and local agencies and the general public in order to solicit additional comments and recommendations on the alternatives under evaluation to address needed transportation improvements in the study area.

The present study is designed to provide local decision-makers sufficient information to determine the project's feasibility, and to give FTA the information it requires to agree to undertake the next step in the FTA project development process. The desired results of this EA will be a Finding of No Significant Impact (FONSI), a legal finding that justifies the decision not to prepare an Environmental Impact Statement (EIS). Any commitments to mitigate impacts identified in the EA will be documented in the FONSI. At the completion of the EA process the project can move into further stages of design and eventual construction if funding is available.

1.8 Summary

Projections of future population and employment in the region indicate that travel demands will continue to increase in the near and long term. The study area is one of the fastest growing regions in Florida, which is itself one of the fastest growing states in the nation. Currently, the regional transportation system consists of an extensive roadway network that is at capacity, includes railroad lines that support both freight and long-distance Amtrak passenger service, and a system of local public and private transit services.

A high capacity transit system is essential to provide an alternative to the single occupant automobile, assist in relieving traffic congestion, provide the travel mechanism required to support growth management plans, assist in the maintenance of traffic during Interstate reconstruction, provide a faster method to commuters to travel within and between the region's activity centers and to implement the corridor development plan essential to a sustainable growth pattern in the region. Without this investment in a balanced transportation system, the traveling public will lack an attractive alternative to auto travel and have no choice but to face increasing congestion and travel time delay in the future. With the effects of continued sprawl development this decrease in mobility will reduce the quality of life in Central Florida and result in negative long-term environmental consequences.