

**Lake~Sumter
2025 Long Range Transportation Plan**

Prepared for:

Lake~Sumter Metropolitan Planning Organization

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In association with

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Projected Revenues 6-19
 Base Revenues 6-19
 Enhanced Revenues 6-20
 Summary of Estimated Costs and Projected Revenues 6-26

Chapter 7: Needs Plan and Alternatives Testing..... 7-1

Introduction 7-1
 Methodology..... 7-1
 Prepare Base Network 7-2
 Forecast Future Roadway Deficiencies..... 7-2
 Develop and Evaluate Roadway Network Alternatives 7-3
 Finalize Selection of Needs Improvements and Integrate Modes..... 7-3
 Improvements Included in the Needs Plan 7-3
 Performance of the 2025 Needs Plan..... 7-11
 2025 Needs Plan Alternatives..... 7-17
 Additional Plan Items 7-17
 Conclusion 7-17

Chapter 8: 2025 and 2015 Cost Affordable Plans 8-1

Methodology..... 8-1
 Calculated Cost of the Adopted 2025 Needs Plan & Analyzed Available Financial Resources..... 8-2
 Prioritized the Adopted Needs Plan..... 8-3
 Investigated Additional Revenue Sources..... 8-4
 Update the Network Alternative for each Funding Scenario..... 8-4
 Presented Funding Scenarios and Cost Affordable Plan Scenarios to the MPO Board 8-4
 Adopted the 2025 Cost Affordable Plan 8-5
 2025 Cost Affordable Plan 8-5
 2025 Cost Affordable Plan Roadway System..... 8-5
 2025 Cost Affordable Plan Goods Movement 8-12
 2025 Cost Affordable Plan Multi-Modal System..... 8-12
 Goals Attainment for the 2025 Cost Affordable Plan..... 8-18
 Intelligent Transportation Systems 8-19
 Travel Demand Management 8-20
 Efficient Transportation Decision Making 8-22



2015 Interim Year Plan 8-27
 Cost Affordable Alternatives 8-28

Chapter 9: Findings And Recommendations..... 9-1

Include all of Sumter County into the MPO Planning Area 9-1
 Update Financial Resources and Transportation Plan Prior to July 1, 2007 9-1
 Annual Existing Conditions Analysis Report to the MPO Board 9-2
 Improve Regional Timing of Plan Development and Adoption 9-2
 Development of a Corridor Preservation Program..... 9-3
 Development of a “Build Out” Transportation Network 9-3
 Coordination on the Development of New Toll Corridors 9-3
 Development of a County or Regional US 27 Corridor Plan..... 9-4
 Expand Multimodal Mobility Through Planning and Implementation of Projects..... 9-4



Appendices

Appendix 2A: Contact Information for Media Outlets.....	2A-1
Appendix 3A: Statewide Minimum Level of Service Standards.....	3A-1
Appendix 3B: Level of Service Standards for the Major Road Network	3B-1
Appendix 5A: Future Land Use Map.....	5A-1
Appendix 6A: State Non-Capacity Revenues	6A-1
Appendix 6B: County Maintenance Revenues	6B-1



List of Tables

Table 3-1: Goals and Long-Range Objectives of the Florida Transportation Plan	3-3
Table 3-2: Applying TEA-21 Planning Factors.....	3-5
Table 3-3: Goals, Objectives, and Performance Measures	3-11
Table 3-4: TEA-21 Planning Factors and the Florida Transportation Plan Goals	3-20
Table 4-1: 2000 to 2010 Roadway Improvements	4-4
Table 5-1: Bureau of Business and Economic Research Population Projections	5-2
Table 5-2: Population and Employment Control Totals	5-2
Table 6-1: State Urban Roadway Improvement Unit Costs.....	6-3
Table 6-2: State Rural Roadway Improvement Unit Costs	6-4
Table 6-3: County Urban Roadway Improvement Unit Costs.....	6-5
Table 6-4: County Rural Roadway Improvement Unit Costs	6-6
Table 6-5: Bridge Construction Costs	6-7
Table 6-6: Cost of the Adopted 2025 Needs Plan	6-8
Table 6-7: Cost of the Adopted 2025 Cost Affordable Plan.....	6-9
Table 6-8: State Roadway Maintenance Unit Costs	6-11
Table 6-9: FDOT Bridge Maintenance Costs.....	6-12
Table 6-10: FDOT Traffic Signal Costs.....	6-12
Table 6-11: Lake County Transit Operating Costs	6-13
Table 6-12: Lake County Transit Capital Costs (2011-2025)	6-15
Table 6-13: Lake County Transit Summary of Operating and Capital Costs.....	6-16
Table 6-14: Unit Costs for Bicycle and Pedestrian Facilities	6-18
Table 6-15: Cost Affordable Plan Revenues (2011-2015).....	6-27
Table 6-16: Cost Affordable Plan Revenues (2016-2025).....	6-28
Table 6-17: Cost Affordable Plan Revenues (2100-2025).....	6-29
Table 6A-1: Non-Capacity Programs	6A-2
Table 6A-2: Statewide Revenue Forecast Non-Capacity Programs.....	6A-4
Table 6B-1: County Maintenance Revenues	6B-1
Table 7-1 Needs Projects.....	7-5
Table 7-2: Summary of Costs and Revenues for the 2025 Adopted Needs Plan	7-14
Table 7-3: 2025 Needs Plan Road System Performance Evaluation – Maximum Service Volume	7-15
Table 7-4: 2025 Needs Plan Road System Performance Evaluation – Physical Capacity	7-16
Table 8-1: 2025 Cost Affordable Plan Revenues & Costs.....	8-3
Table 8-2: Funding Scenario Revenue Assumptions for the 2025 Cost Affordable Plan.....	8-4
Table 8-3: Table 8-3: 2025 Adopted Cost Affordable Plan Improvements and Funding Sources.....	8-6



List of Figures

Figure 1-1: Summary of the Plan Development Process.....	1-3
Figure 4-1: LRTP Tools Organization and Process	4-6
Figure 5-1: Determination of Developable Lands GIS Layers	5-4
Figure 6-1: Long Range Transportation Plan Revenue Projections	6-24
Figure 6-2: Revenue Sources	6-26
Figure 7-1: Needs Plan Methodology	7-2
Figure 8-1: Cost Affordable Plan Methodology	8-2



List of Maps

Map 1-1: Long Range Transportation Plan Study Area.....	1-2
Map 3-1: 2000 (Validation Year) Activity Centers and Intermodal Facilities.....	3-26
Map 3-2: 2000 (Validation Year) Strategic Intermodal System Facilities	3-27
Map 4-1: 2000 (Validation Year) Network Number of Lanes & Road Type.....	4-2
Map 4-2: 2010 Existing + Committed Network Number of Lanes & Road Type	4-3
Map 5-1: Base Year 2000 Population	5-6
Map 5-2: Forecast 2025 Population.....	5-7
Map 5-3: Forecast 2000-2025 Population Growth.....	5-8
Map 5-4: Base Year 2000 Total Employment	5-9
Map 5-5: Forecast 2025 Total Employment.....	5-10
Map 5-6: Forecast 2000-2025 Total Employment Growth.....	5-11
Map 7-1: 2025 Needs Plan Number of Lanes & Road Type	7-7
Map 7-2: 2025 Needs Plan Sidewalk Needs	7-8
Map 7-3: 2025 Needs Plan Bicycle Facility Needs	7-10
Map 7-4: 2025 Needs Plan Transit Needs.....	7-11
Map 7-5: 2025 Needs Plan Level of Service.....	7-17
Map 7-6: 2010 Existing + Committed Network Number of Lanes & Road Type	7-19
Map 7-7: 2025 Needs Alternative 1 Number of Lanes & Road Type	7-20
Map 8-1: 2025 Cost Affordable Plan Number of Lanes & Road Type.....	8-8
Map 8-2: 2025 Cost Affordable Plan Level of Service	8-11
Map 8-3: 2025 Cost Affordable Plan Transit Routes	8-14
Map 8-4: 2025 Cost Affordable Plan Sidewalks.....	8-15
Map 8-5: 2025 Cost Affordable Plan Bicycle Facilities	8-16
Map 8-6: 2015 Interim Year Plan Number of Lanes & Road Type	8-27
Map 8-7: 2025 Cost Affordable Alternative 1 Number of Lanes & Road Type.....	8-28
Map 8-8: 2025 Cost Affordable Alternative 1 Level of Service	8-29
Map 8-9: 2025 Cost Affordable Alternative 2 Number of Lanes & Road Type.....	8-30
Map 8-10: 2025 Cost Affordable Alternatives 3A-C Number of Lanes & Road Type.....	8-31



Chapter 1: Introduction

The Long Range Transportation Plan

The Lake~Sumter Metropolitan Planning Organization (MPO) is responsible for developing the 2025 Long Range Transportation Plan for the Urbanized Areas of Lake and Sumter Counties, as illustrated in Map 1-1. The Long Range Transportation Plan was formally adopted by the MPO Board on December 14, 2005, and is a blueprint to guide transportation system improvements through the year 2025. The improvements identified in the plan are necessary to maintain adequate mobility for the citizens in the Urbanized Areas of Lake and Sumter Counties, and to accommodate the growth that is forecasted through 2025. These improvements were established through a comprehensive identification of highway, public transit, bicycle, pedestrian, and goods movement transportation needs and policies of the counties.

The Long Range Transportation Plan is intended to serve as the official guide for the expenditure of Federal transportation funds and provide guidance for other plans, policies, and programs in urbanized Lake and Sumter Counties. The Lake~Sumter MPO is required to update the Long Range Transportation Plan every five years and maintain a minimum 20 year plan horizon. As such, the 2025 Long Range Transportation Plan replaces the 2020 Lake County Long Range Transportation Plan, prepared for the Lake County Public Works Department and adopted in December 2000 by the Lake County Board of County Commissioners. Additionally, an interim 2015 plan was prepared to aid in the prioritization of needed transportation projects identified in the 2025 Cost Affordable Plan.

The Long Range Transportation Plan was prepared consistent with both the Transportation Equity Act for the 21st Century (TEA-21) and available guidance from the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and may be formally amended if needed within the five year update period to address changing transportation needs or revenue availability.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the reauthorization of TEA-21, was enacted into law by President Bush on August 10, 2005, at which time the Lake~Sumter Metropolitan Planning Organization (MPO) was already finalizing its 2025 Long Range Transportation Plan (LRTP) based primarily on TEA-21 guidance. The MPO has coordinated with the Federal Highway Administration (FHWA) and Florida Department of Transportation (FDOT) to identify certain aspects of the LRTP in need of updating for compliance with SAFETEA-LU, due prior to July 1, 2007. Notes, such as this one, have been placed throughout the LRTP to identify these SAFETEA-LU updates. The updated 2025 LRTP was adopted by the Lake~Sumter MPO Board on May 23, 2007.

The Lake~Sumter Region at a Glance: As seen in Map 1-1, the Lake~Sumter MPO planning area consists of Lake County, in its entirety, and that portion of Sumter County that was part of the Lady Lake/Villages urbanized area at the time of the 2000 Census. The Lake~Sumter Planning area includes a mix of rural and urbanized areas, consists of 2 counties and 14 municipalities, and is located within the jurisdiction of two regional planning councils. At the time of the 2000 Census, there were two urbanized areas within the MPO Planning Area, i.e., the Lady Lake/Villages urbanized area and the Golden Triangle (Mount Dora, Eustis, Tavares, Leesburg). There are two additional areas that have since shown urbanized characteristics, both in South Lake County, i.e., the Clermont area and Four-Corners Area. The MPO, as it sees Sumter County as an important regional neighbor, intends to create a true-two-county LRTP, with all of Sumter County included, as it commences development of its 2030 LRTP. Many member governments, including, but not limited to, Lake County, Sumter County, the City of Tavares, the City of Fruitland Park and the City of Wildwood are beginning a future visioning process to determine how they wish to look in the future. The MPO is also participating in the MyRegion.org 2050 Visioning exercise for all of Central Florida.

Plan Development Process

The development of this Transportation Plan required completion of multiple interrelated tasks. The relationship of these tasks is illustrated in Figure 1-1. Each of these tasks is described in greater detail within the individual chapters of this report.

How this report is organized

The documentation of the 2025 Long Range Transportation Plan consists of two principal components:

- The Long Range Transportation Plan: Final Report
- The Long Range Transportation Plan: Technical Appendix

Lake - Sumter MPO

2025 Long Range Transportation Plan

Long Range Transportation Plan Study Area

FLAGLER

VOLUSIA

MARION

SEMINOLE

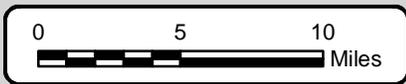
ORANGE

SUMTER

POLK

LEGEND

-  Roads
-  County Boundary
-  Inside Study Area

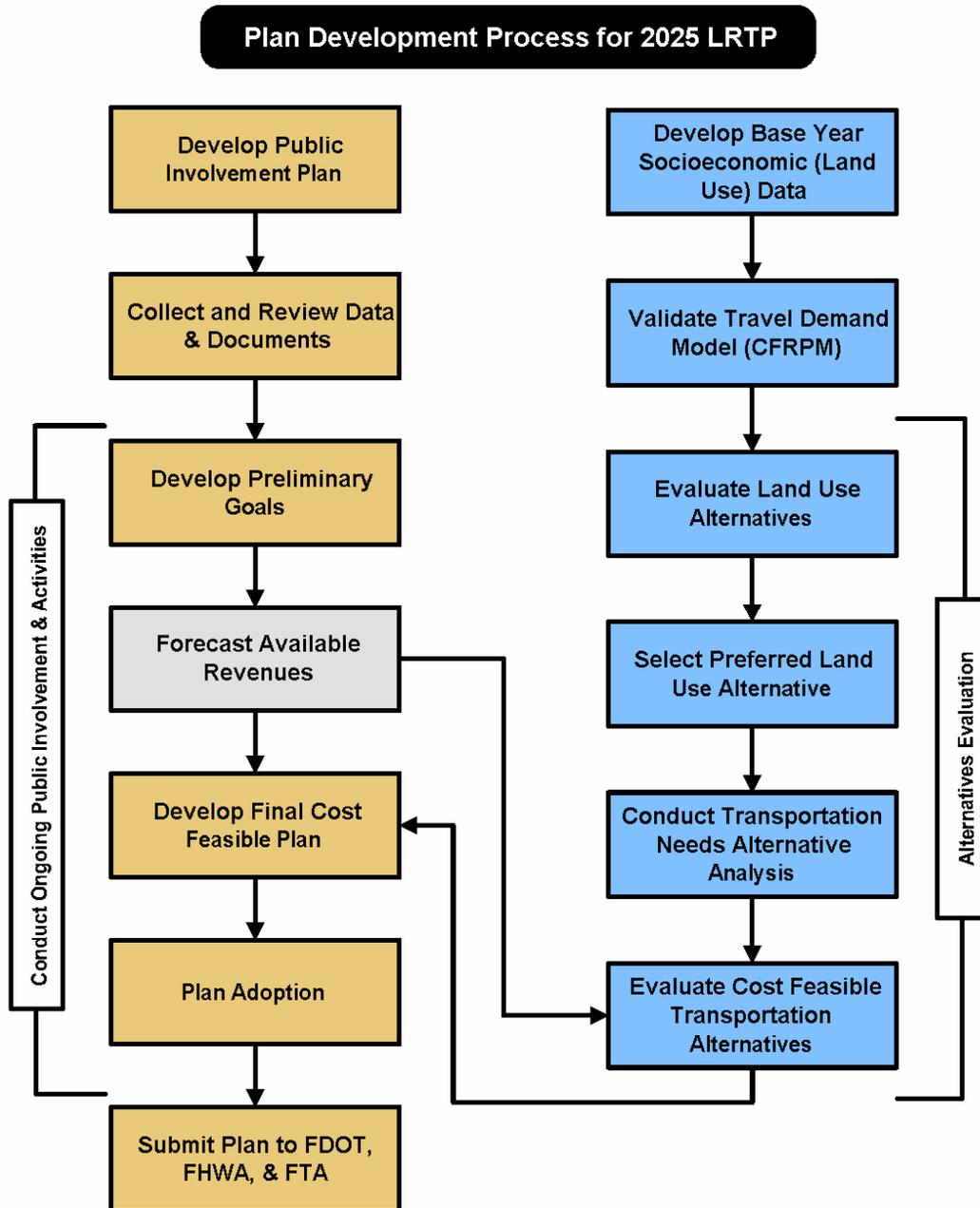


Map 1-1

Long Range Transportation Plan
Study Area



Figure 1-1: Summary of the Plan Development Process





The Long Range Transportation Plan: Final Report

The Long Range Transportation Plan Final Report serves as an independent summary of each major plan element. It includes documentation of the methodology used to develop the plan, as well as summaries of the key elements used to develop the plan and the transportation improvements in the Adopted 2025 Cost Affordable and the Adopted 2025 Needs Plans. The Final Report is intended for day-to-day use and includes the following chapters:

Chapter 1: Introduction

Chapter 1 provides a brief description of the Long Range Transportation Plan process and presents an outline for the Final Report.

Chapter 2: Public Involvement Plan and Summary

Chapter 2 summarizes the public involvement activities and information distribution techniques that were used throughout the development of the Long Range Transportation Plan. In addition, a summary of public comments is provided.

Chapter 3: Goals, Objectives, and Performance Measures

Chapter 3 provides a summary of the goals for the Long Range Transportation Plan, the objectives used to attain those goals, and the policies used to guide the Plan. This chapter includes the goals from the counties and the MPO, as well as the goals from Federal TEA-21 and SAFETEA-LU legislation, the Florida Transportation Plan, the comprehensive plans for the counties and municipalities within the counties, and other policy guidance.

Chapter 4: Data and Plan Preparation

Chapter 4 discusses the Data and Plan Preparation, providing a summary of the year 2000 transportation network, and the development of a 2010 Existing + Committed Network. The needs and projects identified in the 2025 Long Range Transportation Plan are based on the assumption that committed projects from the 2010 Existing + Committed Network are completed as scheduled.

This chapter also includes an overview of the transportation planning tools used throughout the development of the Plan. This includes the tools used to forecast the travel demand throughout the urbanized areas of Lake and Sumter Counties in 2025 and the tools used to evaluate the Needs Plan alternatives and Cost Affordable Plan alternatives.

Chapter 5: Land Use and Socioeconomic Data Forecast

Chapter 5 provides an overview of the socioeconomic data forecast that was used to provide the population and employment data for traffic analysis zones in 2025. This forecast is an integral input into the travel demand model used to develop the Needs Plan.



Chapter 6: Financial Resources

Chapter 6 outlines the assumptions made relevant to the amount of revenue available from 2011 to 2025 to fund the 2025 Cost Affordable Plan and the 2015 Interim Year Plan. This chapter also includes a summary of the available revenues.

Chapter 7: 2025 Needs Plan and Alternatives Testing

Chapter 7 describes the methodology used to develop the 2025 Needs Plan and documents the resulting transportation improvements deemed necessary through the year 2025. This Needs Plan includes improvements to the highway network, public transportation, bicycle facilities, and pedestrian facilities. The Needs Plan does not consider the cost-feasibility of the proposed improvements.

Chapter 8: 2025 and 2015 Cost Affordable Plans

Chapter 8 documents the adopted 2025 Cost Affordable Plan and the 2015 Interim Year Cost Affordable Plan. This is a multi-modal plan that balances the cost of transportation improvements and operations with the financial resources available to fund improvements.

Chapter 9: Findings and Recommendations

Chapter 9 provides a conclusion to the plan document and includes major findings included in the Long Range Transportation Plan. This chapter also includes recommendations for consideration in the next update cycle of the Long Range Transportation Plan or other future planning activities.

Long Range Transportation Plan: Technical Appendix

The Long Range Transportation Plan Technical Appendix contains the detailed technical information and data used during the development of the Plan. Each section of the Technical Appendix corresponds to a chapter in the Long Range Transportation Plan Final Report. For example, Technical Appendix Section 8 refers to the detailed information concerning the Cost Affordable Plan. This Technical Appendix is provided in lieu of individual Technical Memorandums.



Conclusion

The Long Range Transportation Plan Final Report and Technical Appendixes document the process by which transportation projects have been identified for inclusion in the 2025 Cost Affordable Plan. However, the inclusion of a project in the 2025 Cost Affordable Plan is the only first of many steps required for a project's implementation. Prior to the implementation of a project, additional studies will typically be conducted to focus on specifics of that project and to evaluate the benefits and impacts to the community. In the case of roadway improvements, engineering studies must be conducted to evaluate the specific alignment and environmental impacts of the project. Additional public meetings are typically conducted during these subsequent studies. The Lake~Sumter MPO, Lake County Public Works Department, Sumter County Public Works Department, and the Florida Department of Transportation routinely provide opportunities for the public to stay informed on the progress of individual projects as they proceed through the process that leads to project implementation.



Chapter 2: Public Involvement Plan and Summary

Introduction

Chapter 2 documents the public involvement plan used for the development of the Lake~Sumter MPO 2025 Long Range Transportation Plan, as well as key highlights of the public comments received during the development of the plan.

The significance and impact of the Long Range Transportation Plan on all citizens of Lake and Sumter Counties makes it important that the public actively participate in its development. Thus, it was the intent of the Lake~Sumter MPO that the public be involved. To this end, a Public Involvement Plan (PIP) was developed to facilitate public participation which reflects procedures to be followed for compliance with requirements of the Transportation Equity Act for the 21st Century (TEA-21).

TEA-21, signed into law in June, 1998, and its predecessor, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), required proactive public involvement in transportation planning. The Lake~Sumter Metropolitan Planning Organization (MPO), in order to accomplish this proactive public involvement, provided complete information and timely public notice, and supported continued involvement of the public in the development of the transportation plan.

TEA-21 and ISTEA not only require opportunities for public input and "explicit consideration" of public comments, but also "response" to public input. The public must be assured that their inputs are valued and considered in decision making and that their time and energy expended are meaningful and worthwhile. Along these lines, the MPO shall maintain records of public involvement activities, including comments, concerns, responses, and requests for information. All public input was made available to elected leaders prior to all decisions.

SAFETEA-LU, the reauthorization of TEA-21, included several new requirements regarding public involvement. These specific requirements are discussed later in Chapter 2. Since adoption of the 2025 LRTP, the Lake~Sumter MPO has adopted a Public Involvement Plan (PIP) to provide guidance.

This Public Involvement Plan for the Lake~Sumter MPO 2025 Long Range Transportation Plan was developed to ensure maximum public participation and to build consensus in this important planning study. The plan summarizes the approach used to include public participation in the planning process, and places a particular emphasis on outreach to minorities and low-income groups, as well as intergovernmental coordination.

Because public concerns are often localized, and active participants do not always represent the concerns of the public as a whole, proactive steps were taken to ensure the public involvement process resulted in an accurate understanding of the public as a whole. Public involvement activities were varied by time, place, and method to simplify access to the decision making process. The following methods will be used continuously through the planning process:

- Public Workshops
- Public Meetings (MPO, TAC, and CAC Meetings)
- Educational Forums

Public availability of technical data and other information shall be guaranteed. Along with corresponding educational opportunities, citizens shall gain the information needed to provide input. Open access to the decision making process shall also be guaranteed.

The overall goal of the PIP is summarized below.

.....to achieve mutual understanding and build consensus among those involved in transportation planning in Lake and Sumter Counties, including individuals or groups potentially affected by transportation decisions in Lake and Sumter Counties.

Public Meetings and Interagency Coordination

The Lake~Sumter MPO used the public information, outreach and educational programs of other governmental entities, when feasible, to expand opportunities and reduce costs. Coordination efforts with adjacent governments to create regional travel opportunities were also employed. Attempts were made to recruit representatives from diverse backgrounds to represent the following public and private sector interests:

Public Sector Representation

- Technical Staff from Municipalities
- Public Officials from Municipalities
- Airports
- Community Coach
- Florida Department of Transportation
- Human Service Agencies
- Geographic Diversification
- Lake and Sumter Counties
- Others as Identified

Private Sector Representation

- Chamber of Commerce
- Major Employers
- Community Leaders
- Freight Industry
- Minority Community
- Elderly Community
- Low-Income Community
- Geographic Diversification
- Others as Identified



The PIP included meetings and public workshops during the course of this project that facilitated participation of the following boards and groups:

- *Lake~Sumter MPO Board* – The MPO Board is comprised of elected community leaders from Lake and Sumter Counties, as well as the fourteen municipalities in Lake County and the City of Wildwood in Sumter County (an Ex-Officio Member). The MPO Board typically meets on the fourth Wednesday of each month, at 2:00 p.m.
- *Lake~Sumter MPO Technical Advisory Committee (TAC)* - The TAC is comprised of planners and engineers from the various local governments comprising the MPO. The input provided by the TAC is of a very technical nature and may include making technical design recommendations and verifying that all documents conform to the appropriate standards. The TAC meets on the third Wednesday of each month, at 2:00 p.m.
- *Lake~Sumter MPO Citizens Advisory Committee (CAC)* - The CAC is comprised of interested community members. This committee has a special advisory role to the MPO because it provides a necessary communication link between the MPO and the community it is serving. The input provided by the CAC ensures that the MPO planning process is actually meeting the needs of the community it is serving. The CAC meets on the third Wednesday of each month, at 4:00 p.m.
- *Lake County Transportation Disadvantaged Coordinating Board (TDCB)* - The purpose of the Coordinating Board is to provide direction to the Community Transportation Coordinator (CTC) on the coordination of services to be provided to the transportation disadvantaged within their local service area. The TDCB conducts their meetings quarterly, on the third Monday of every third month at 2:00 p.m.
- *The general public through Consensus Building Workshops*

SAFETEA-LU requires all public meetings be accessible. The Lake~Sumter MPO scheduled public meetings and workshops related to the 2025 LRTP development at various locations, and at different times of day, in an attempt to increase accessibility for all concerned and interested parties. Since adoption of the 2025 LRTP, the MPO has adopted a Public Involvement Plan (PIP) which addresses this issue of accessibility of public meetings.

Public Involvement Tools

A number of public relations tools were used to communicate with the public, provide information on the progress of the study, and generate public input into the project in an effort to develop consensus and direction in the plan update. These tools focus on notification and communication and include:



- Newsletters
- Direct mailing
- Media relations
- Internet Website

Further detail on each of these techniques and how they were intended for use as part of the public involvement process for the development of the Lake~Sumter MPO 2025 Long Range Transportation Plan is provided in the following sections.

SAFETEA-LU requires that the employment of visualization techniques to describe the LRTP. These can include maps, charts, graphs, diagrams and techniques such as scenario planning. The Lake~Sumter MPO utilizes maps, charts, graphs and diagrams throughout the 2025 LRTP. Since adoption of the LRTP, the MPO has entered into a contract with Lake County to share the services of a GIS Analyst. The MPO is currently building a GIS database.

Newsletters

Project newsletters were published during the study process to communicate information on study progress to the public at large, and to advertise upcoming public meetings and workshops. Newsletters were distributed to the mailing/contact list being developed by MPO staff.

Direct Mailings

MPO staff were responsible for developing a mailing/contact list to enable the distribution of project related information throughout the development of the LRTP. The mailing list was designed to reach diverse populations throughout Lake and Sumter Counties. Throughout the study process, correspondents and attendees at the public meetings were encouraged to provide their addresses and to be added to the mailing list. In this way, the mailing list was updated on an on-going basis throughout the study.

Media Relations

Media relation strategies and activities were planned and executed in an on-going manner for all types of media that were deemed an appropriate communications vehicle. These strategies were multi-cultural and sensitive to disabilities to ensure that two-way communication efforts penetrate all appropriate markets. The MPO strived to have transportation related issues featured in local newspapers and aired on local television on a frequent basis. The MPO utilized all appropriate forms of media to help generate interest in the project, elicit responses from the public, and provide feedback or response to public inquiries.



Formal press releases to announce workshops, public hearings, and planned development activities were sent to the following media sources:

- Orlando Sentinel
- Lake County News Section
- Daily Commercial
- South Lake Press
- Sumter Sun
- Sumter County Times
- North Lake Outpost
- The Reporter
- The Reporter in the Villages
- Village Media Group
- Mount Dora Topic
- The News Leader
- Tavares Citizen
- Village Daily Sun

Internet Website

Information and files were provided in electronic format on the Lake~Sumter MPO Website (www.LakeSumterMPO.com). The website for the LRTP provided general information about the plan and was updated periodically as planning activities took place and deliverables were produced.

SAFETEA-LU requires that public information be made available in electronically assessable formats, such as the World Wide Web. The Lake~Sumter MPO utilized its website, www.LakeSumterMPO.com, to disseminate information related to the development of the 2025 LRTP. Final documentation of the 2025 LRTP is available on the website.

Public Involvement Process

The recommended Public Involvement Process for the Lake~Sumter MPO 2025 LRTP Update included major public involvement techniques recommended and described previously in this report. Major elements of the public involvement process for the LRTP are summarized as follows:

(1) Project Kick-off Meeting – Conducted initial meeting with the MPO staff and the TAC/CAC to review the project and the overall long range transportation planning process

(2) Consensus-Building Workshop Number One – Conducted first Consensus-Building Workshop to review goals, objectives, and 2025 Needs Plan

(3) Present Financial Resources and Needs Plan – Presented Financial Resources and unit cost data to be used for the plan to the MPO and TAC/CAC. Also discussed the recommended initial Needs Plan alternative

(4) Two Environmental Justice (EJ) Discussion Groups – Conducted Environmental Justice (EJ) Discussion Groups to review the positive and negative impacts of the proposed 2025 Needs Plan projects



(5) Consensus-Building Workshop Number Two – Conducted second Consensus-Building Workshop to review revenue sources, Alternatives, and Initial 2025 Cost Affordable Plan

(6) Review and Approve Final 2025 Needs Plan Network – Met with the MPO and TAC/CAC to review the performance of the 25N2 alternative and recommended the initial 2025 Cost Affordable Plan alternative for testing

(7) Review and Comment on Draft Chapter 7 – Met with the MPO and TAC/CAC to review the draft Chapter 7 documenting the Needs Plan and to select and recommend the initial 2025 Cost Affordable Plan alternative for testing

(8) Review and Approve Final 2015 and 2025 Cost Affordable Plan Networks – Met with the TAC/CAC and MPO Board to review and approve the Final 2025 Cost Affordable Plan and 2015 Interim Year Plan

(9) MPO Adoption Hearing – Documented for review by TAC, CAC and MPO staff all written comments received through the public involvement process. The critical and most relevant comments were highlighted. Public input was incorporated into the plan development process as appropriate according to the guidance provided by MPO staff.

Public Involvement Schedule

A summary schedule of public involvement activities used in the Public Involvement Plan is provided below:

- October 2004: Kickoff Meeting
- May 2005: Present Financial Resources and Needs Plan
- June 2005: Environmental Justice Discussion Groups
- June 2005: Consensus Building Workshop #1
- August 2005: Consensus Building Workshop #2
- September 2005: Review and Approve Needs Plan
- October 2005: Review and Comment on Financial Resources
- December 2005: Review and Approve Cost Affordable Plan

Public Comment Summary

Significant public comment was received throughout the development of the Long Range Transportation Plan. Many of the public comments were received as part of the MPO's routine committee meetings by the MPO Board, Citizens Advisory Committee, and Technical Advisory Committee. The two Consensus-Building Workshops and Environmental Justice Discussion Group Meetings resulted in significant public guidance on the content and direction of the plan. Public comments were also received by the MPO via e-mail and mail correspondence. Highlights of the public comments received are summarized in greater detail below.

MPO Board and Committee Meetings

MPO Board and Committee meetings are routinely conducted by the MPO as part of their ongoing planning process. These meetings presented the MPO the opportunity to inform the public as to the status of the plan and to also receive direction on major aspects of the plan's development including project prioritization and the approach used to fund the plan. Detailed summaries of these meetings and their influence on the plan can be found as noted below:

- MPO Board Meeting Minutes: Technical Appendix 2A
- Citizens Advisory Committee Meeting Minutes: Technical Appendix 2B
- Technical Advisory Committee Meeting Minutes: Technical Appendix 2C

Major highlights from these meetings included the opening of the Plan Public Hearing at the MPO Board Meeting on October 26, 2005 and the Plan Adoption that took place at the MPO Board Meeting on December 14, 2005. Significant discussion at these MPO Board Meetings and the Citizens Advisory Committee and Technical Advisory Committee meetings included discussion on appropriate funding sources for the plan, especially additional funding sources. Both the Technical and Citizens committee groups expressed nearly unanimous support for making use of all available "enhanced" revenue sources that included the following:

- Extension of the existing sales tax through the year 2025
- Adoption of the second 5 cent local option gasoline tax
- Increases in transportation impact fees over time

The MPO Board decided to adopt the extension on the existing sales tax and more aggressive increases in the transportation impact fees in lieu of making use of the second 5 cent local option gasoline tax. The results of this action to approve the use of "enhanced" revenues was to significantly increase the funds available to fund additional projects in the adopted plan.

Consensus Building Workshops

The Lake-Sumter MPO conducted two Consensus-Building Workshops to actively engage the public in the decision making process for the Long Range Transportation Plan. These Consensus-Building Workshops were conducted on the following dates:

Consensus-Building Workshop 1

June 15, 2005 – Lake-Sumter Community College, Leesburg Campus

Consensus-Building Workshop 2

August 19, 2005 – Lake-Sumter Community College, Leesburg Campus

These two workshops were day-long sessions that consisted of the following format:

- Introduction and Education Session on the Plan
- Review of Workshop Objectives
- Focused Questions regarding elements of the plan answered by the public in breakout group sessions
- Presentation by the public of group answers
- Resolution of differences between the groups

The format resulted in specific guidance from the public on the prioritization of projects, new projects for consideration, potential project impact issues and the need for roadway realignments, funding for non-automobile transportation modes, and appropriate funding considerations.

Significant highlights of the public guidance received at the two workshops included:

- General support for the implementation of the Wekiva Parkway
- Development of a northern east-west corridor, generally along the alignment of CR 44, that crosses Lake Griffin; this roadway should be a toll facility
- Adoption of the plan to implement the recommendations of the current Transit Development Plan and provision of additional transit service to the public
- Caution on the alignment of a new North-South Corridor west of US 27, from CR 470 to SR 44, due to environmental and community impact concerns

- Use of “Enhanced” revenue options to include extension of the existing sales tax for transportation, use of the second 5 cent local option gasoline tax, and incremental increases over time in the transportation impact fee
- Desire for increased integration of the transportation planning efforts in all of Sumter County – including those areas of Sumter County outside the MPO’s planning area

Each of these public comments resulted in changes or enhancements to the resulting plan that were adopted by the MPO Board.

A detailed summary of Consensus-Building Workshop 1 is provided for in Technical Appendix 2D and for Consensus-Building Workshop 2 in Technical Appendix 2E.

Environmental Justice Discussion Groups

Two Environmental Justice Discussion Group meetings were conducted on June 17, 2005. The first workshop took place in Minneola – South Lake, and the second workshop was conducted in Leesburg. The purpose of these two workshops was to reach out to traditionally underserved members of the population, such as minorities or individuals with impairments. To ensure the success of these workshops, the meeting format was brief and focused on key areas of concern. Specific minority leaders and service providers were invited to the workshops to ensure that the issues of these communities would be identified.

Highlights on the feedback received included:

- Overall, most community transportation needs for minorities and the transportation disadvantaged are being accommodated by the Transportation Disadvantaged Program, non-profit community organizations or other community volunteers. This is creating a burden for these groups as transportation is not one of their key functions.
- Fixed Route Public Transportation needs to be provided throughout the community, especially service to medical facilities/offices and shopping opportunities.
- The services provided by the existing Transportation Disadvantaged provider need to be improved. It is noted that the service provider was changed prior to the adoption of the plan.
- Transportation services are needed to transport individuals to DUI classes and other court-ordered activities.



Summaries of the two Environmental Justice Discussion Group meetings are provided for in Technical Appendix 2F.

Other Public Comments

A limited number of relevant public comments were received during the public comment period that occurred between the public hearing opened on October 26, 2005 and the adoption of the Long Range Transportation Plan by the MPO Board on December 14, 2005. These public comments are summarized in Technical Appendix 2G.

Legal Notices

Appropriate Legal Notices were provided during the plan in fulfillment of the Federal and state requirements for the development and adoption of the Long Range Transportation Plan. Copies of these legal notices are provided in Technical Appendix 2H.

Chapter 2 Appendix

Appendix 2A: Contact Information for Media Outlets 2A-1

COUNTY MANAGER'S OFFICE
315 W. MAIN ST.
TAVARES, FLA. 32778-7800



PHONE: (352) 343-9609
FAX: (352) 343-9698
www.lakegovernment.com

INFORMATION OUTREACH SECTION

June 13, 2005

Lake-Sumter MPO
Executive Director T.J. Fish:

Enclosed are the media lists where the Lake-Sumter MPO public meetings news release was sent out to. Also, the news release was sent to the Sumter County Times, North Lake Outpost, VNN, the Daily Sun and the Ocala-Star Banner by fax.

As I mentioned before, the Sumter Sun is owned the Daily Sun and the Reporter is owned by the Ocala Star Banner. All the other media outlets identified in the public involvement plan.

Thank you,

Chris Patton
Communications Coordinator
Lake County Board of County Commissioners

RECEIVED

JUN 16 2005

LAKE-SUMTER MPO

"Earning Community Confidence Through Excellence in Service"

DISTRICT ONE
JENNIFER HILL

DISTRICT TWO
ROBERT A. POOL

DISTRICT THREE
DEBBIE STIVENDER

DISTRICT FOUR
CATHERINE C. HANSON

DISTRICT FIVE
WELTON G. CADWELL

Patton, Christopher

Distribution List Name: Lake County newspaper contacts

Members:

Barbara Poplin (publisher@lakecountyhomesteader.com)	publisher@lakecountyhomesteader.com
Chris Curry Ocala Star Banner	chris.curry@starbanner.com
Christine Giordano (E-mail)	christine.giordano@thevillagesmedia.com
Clermont News Leader (E-mail)	thenewsleader@cfl.rr.com
Daily Commercial Nina Gilfert (E-mail)	ninagilfert@dailycommercial.com
Daily Sun (E-mail)	dailyedit@aol.com
Daily Sun Larry Larry Croom (E-mail)	LDCroom@aol.com
Elisha Pappacoda (Daily Sun)	elisha.pappacoda@thevillagesmedia.com
Frank Stanfield	frank.stanfield@starbanner.com
James Miller (James.Miller@news-jrnl.com)	James.Miller@news-jrnl.com
Jodie O'Brien	jodieobrien@dailycommercial
Joe Callahan (Ocala Star Banner)	callahanj330@aol.com
Lake Sentinel	lakesentinel@orlandosentinel.com
Linda Charlton (The Reporter)	lscharlton@yahoo.com
Michelle Start	michellestart@dailycommercial.com
Mid-Florida Publications (editdixie@comcast.net)	editdixie@comcast.net
Orlando Sentinel	citydesk@orlandosentinel.com
Pete Skiba	slpeditor@earthlink.net
Sean Maxfield (Daily Sun)	sean.maxfield@thevillagesmedia.com
Sean Thomas (seanthomas@dailycommercial.com)	seanthomas@dailycommercial.com
Stephen Hudak	shudak@orlandosentinel.com

Patton, Christopher

Distribution List Name: Lake County radio station contacts

Members:

106.7

Clear Channel (Maitland)

Mount Dora morning radio show

WLBE

WTLN

WVLG

ZCrew

ajd@xl1067.com

news@frn.com

seniorlife@earthlink.net

790wlbe@comcast.net

wtlnmorninglight@aol.com

WVLGRadio@thevillagesmedia.com

zcrew@zradio.org

Patton, Christopher

Distribution List Name: Lake County television contacts

Members:

Central Fla. 13	tgriffith@cfnews13.com
Central Florida News 13	newsdesk@cfnews13.com
Dave McDaniel	dave.mcdaniel@wesh.com
David Martin	dmart901@foxtv.com
Ed Rose	elrose@hearst.com
Eryka (ewashington@hearst.com)	ewashington@hearst.com
Fox 35	assignmenteditor@foxtv.com
Fox 35	news@wofl.com
Justin Lear	jlear@cfnews13.com
Tom Schaad (tschaad@hearst.com)	tschaad@hearst.com
VNN	mark.giblin@thevillagesmedia.com
VNN (Villages News)	villdaily@aol.com
WCJB Channel 20	tv20news@wcjb.com
WESH Channel 2	desk@wesh.com
WFTV Channel 9	news@wftv.com
WKMG Channel 6	desk@wkmg.com

News Release

For immediate release - June 13, 2005

Lake-Sumter MPO to hold several public workshops

LEESBURG — The Lake-Sumter Metropolitan Planning Organization (MPO) will conduct several public workshops this week to gather input regarding existing transportation needs, as well as visioning for transportation needs in the future.

Beginning on Wednesday, June 15, from 9 a.m. to 3 p.m., the Lake-Sumter MPO will host a Consensus Building Workshop at the Lake-Sumter Community College Magnolia Room located at 9501 U.S. Highway 441, Leesburg.

While the meeting is open to the public, the MPO has invited elected officials, environmental groups, chambers of commerce representatives, homeowner's associations and various County and municipal planning staff to solicit input about transportation needs. The input received will help guide the development of the 20-year Long Range Transportation Plan (LRTP).

"The MPO is deep into the process of creating the 2025 LRTP, which will be completed in December," said MPO Executive Director T.J. Fish. "We are now at the point where transportation needs are being determined through technical analysis and through public input. We intend to show the public what needs have been revealed through analysis and then we want the public's thoughts on meeting those needs."

Fish said that once the MPO knows what the needs are and how the public would like to address the needs, the next step is to develop solutions to the needs based on cost feasibility.

"Right now we are just discussing needs. At the end of the summer we will have another opportunity for feedback regarding possible solutions," he said.

For more information about the Consensus Building Workshop or for citizens to reserve a seat to the all-day workshop, call the Lake-Sumter MPO office at (352) 315-0170.

The format for the two Lake-Sumter MPO Environmental Justice Discussion Group workshops scheduled for Friday, June 17, are slightly different. Invited to the two meetings are community-based agencies that serve individuals with specific transportation needs, such as those that utilize Lake County's transportation disadvantaged program.

"We are soliciting input from people that are most in need of public transportation," Fish said. "The term 'environmental justice' refers to the social environment, with a goal of promoting equity among varying social groups."

The first group workshop, targeting southern Lake County, is scheduled June 17 from 9 to 11 a.m. at Minneola City Hall, located at 800 N. U.S. Highway 27. The second group workshop, for northern Lake County, is scheduled on June 17 from 2 to 4 p.m. at the Leesburg Community Center West Room located at 109 E. Dixie Ave.

For more information about the Environmental Justice Discussion Group workshops or for citizens to reserve a seat to either of the workshops, call the Lake-Sumter MPO office at (352) 315-0170. For those unable to attend any of these workshops, written comments will be accepted through June 31 and may be sent to: Lake-Sumter MPO, 1616 S. 14th St., Leesburg, FL 34748.

BACKGROUND: Established in 2004, the Lake-Sumter MPO is a regional, independent agency supported through federal funds and tasked with efficiently planning for the community's

transportation needs. The purpose of the MPO is to provide a forum for a coordinated, comprehensive and continual transportation planning process. The agency is responsible for the planning of several modes of transportation and for coordinating and prioritizing projects on a regional level.

###

Contact information:
Christopher Patton
Communications Coordinator
Office: (352) 343-9609; Cell: (352) 455-0445
cpatton@co.lake.fl.us

Chapter 3: Goals, Objectives, And Performance Measures

Introduction

Prior to establishing specific transportation project needs, it is necessary to establish goals and objectives which may be used to plan for and monitor the implementation of the future transportation system for Lake County and the eastern (urbanized) portion of Sumter County through the 2025 Plan horizon. The goals and objectives are developed through a Public Involvement Process, described in Chapter 2 of this report, and represent the shared vision of the citizens within the MPO boundary. By first establishing overarching goals and objectives, the desires and values of the community are built into the planning process and are therefore reflected in the transportation system described in the Long Range Transportation Plan. The goals and objectives are supported by policies, measures of effectiveness, and standards which support the monitoring of the transportation system. Each of these key terms is defined as follows:

- **Goal:** Long term outcome of the plan or program
- **Objective:** Specific and measurable outcome that represents a progress milestone
- **Policy:** Course of action that directs the coordination of achieving the goal or objective
- **Performance Measure:** Quantifiable measure of the performance of an element of the program
- **Standard:** Minimum acceptable performance measure for a specific planning purpose, such as level of service.

To be effective, the goals, objectives, and performance measures must balance the needs of numerous individuals, agencies, and planning partners; while also adhering to regional, statewide and national requirements for the transportation planning process.

Background and Plan Consistency

While addressing the unique and specific needs of its citizens and communities, the Long Range Transportation Plan for the Lake~Sumter MPO must also address the requirements and policies of other local, regional, state, and Federal entities. Local and regional coordination is needed to ensure consistency with the plans and goals of the neighboring cities and counties while State and Federal coordination is needed to ensure plan consistency with adopted regulations and procedures.



Local and Regional planning documents used in the development of the goals and objectives of the Lake~Sumter 2025 Long Range Transportation Plan include:

- Lake County 2020 Transportation Plan
- Lake County Comprehensive Plan
- Local City Plans
- Neighboring MPO Long Range Transportation Plans (Ocala/Marion, Volusia County, MetroPlan Orlando, and Polk TPO)

The goals and objectives for urbanized areas of Lake and Sumter Counties were developed with consideration for the goals and objectives outlined in the *Florida Transportation Plan* and using the planning factors identified in Section 3.2 of the TEA-21 Legislation. Additional State and Federal plans and regulations used to guide the development of the goals, objectives, and recommendation of the Long Range Transportation Plan include:

- Florida Administrative Code, Rule 9J-5
- Florida Intrastate Highway System (FIHS) Plan
- Florida Strategic Intermodal System (SIS) Plan

Development Process

The following section discusses in detail the interface of the Long Range Transportation Plan Goals and Objectives development process with the *Florida Transportation Plan* and the planning factors identified in Section 3.2 of the TEA-21 Legislation

The Florida Transportation Plan (FTP) has established seven (7) goals and objectives for the statewide transportation system. The FTP goals and objectives are shown in Table 3-1 and were used to guide the development of the Lake~Sumter MPO goals and objectives. These four goals are cross-referenced with the five Lake~Sumter Long Range Transportation Plan Goals and Objectives in Table 3-4 presented later in the chapter.

Table 3-1: Goals and Long-Range Objectives of The Florida Transportation Plan

GOAL 1: SAFE TRANSPORTATION FOR RESIDENTS, VISITORS AND COMMERCE
1.1: Reduce the rate of motor vehicle crashes, fatalities, and injuries and bicycle and pedestrian fatalities and injuries on highways.
1.2: Improve intermodal safety where modes intersect, such as highway or railroad bridges over waterways and highway - railroad crossings.
1.3: Improve the safety of commercial vehicles, rail facilities, public transportation vehicles and facilities, and airports.
1.4: Improve emergency preparedness and response.
GOAL 2: PROTECTION OF THE PUBLIC'S INVESTMENT IN TRANSPORTATION
2.1: Preserve the State Highway System.
2.2: Reduce the number of commercial vehicles that exceed legal weight limits on the State Highway System.
2.3: Protect the public investment in aviation, transit and rail facilities.
GOAL 3: A STATEWIDE INTERCONNECTED TRANSPORTATION SYSTEM THAT ENHANCES FLORIDA'S ECONOMIC COMPETITIVENESS
3.1: Place priority on completing the Florida Intrastate Highway System (FIHS).
3.2: Complete a Statewide High Speed Rail System.
3.3: Improve major airports, seaports, railroads and truck facilities, to strengthen Florida's position in the global economy.
3.4: Improve connections between seaports, airports, railroads, and the highway system for efficient interregional movement of people and goods.
3.5: Manage and preserve designated transportation corridors in cooperation with local governments and through advance acquisition of right-of-way.



GOAL 4: TRAVEL CHOICES TO ENSURE MOBILITY, SUSTAIN THE QUALITY OF THE ENVIRONMENT, PRESERVE COMMUNITY VALUES AND REDUCE ENERGY CONSUMPTION.

4.1: Reduce dependency on the single occupant vehicle.

4.2: Provide accommodation for transit vehicles, bicyclists and pedestrians, wherever appropriate, on state highways.

4.3: Increase public transportation ridership.

4.4: Expand public and specialized transportation programs to meet the needs of the transportation disadvantaged.

4.5: Minimize the impact of transportation facilities and services on the environment.

4.6: Increase energy conservation and the use of recycled materials, native vegetation and wildflowers.

In addition to the FTP, the Planning Factors from Section 3.2 of the TEA-21 Federal legislation were considered in the Lake~Sumter Long Range Transportation Plan process. The Table 3.2 is excerpted from the "TEA-21 Users Guide", and shows how Long Range Transportation Plan goals, factors, and evaluation criteria are related. There can be different ways of evaluating projects for the same Federal planning factors, depending on whether systems or individual projects are being evaluated. The seven TEA-21 Planning Factors are cross-referenced with the five Lake~Sumter Long Range Transportation Plan Goals and Objectives as described in Table 3-4 presented later in the chapter.

SAFETEA-LU separated Safety and Security of the Transportation System (see the second planning factor, below, in Table 3-2) into their own individual planning factors. The Lake~Sumter MPO did address both safety and security in the development of the 2025 LRTP, but will expand upon these items later in Chapter 3. In addition, SAFETEA-LU expanded the environmental planning factor (see the fourth planning factor, below, in Table 3-2) to promote consistency between transportation improvements and State and local planned growth and economic development patterns. The MPO addressed this issue in considering approved developments and trends based on existing development patterns when projecting future land use data (socioeconomic data) for use in the travel demand model.

Table 3-2: Applying TEA-21 Planning Factors

Factor	Long Range Considerations	Project Selection Criteria	Sample Projects
Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency	<ul style="list-style-type: none"> • Intermodal facilities • Rail and port access • Public/private partnerships • Land use policies • Economic development • Energy consumption 	<ul style="list-style-type: none"> • Community integration • Long-term, meaningful employment opportunities • Accessibility • Modal connectivity • Infrastructure impacts 	<ul style="list-style-type: none"> • Demand management • System preservation • Planned community development • Transit-oriented design
Increase the safety and security of the transportation system for motorized and non-motorized users	<ul style="list-style-type: none"> • Community access • Transit usage • Social equity • System upgrades 	<ul style="list-style-type: none"> • Benefits across modes • Community integration/impact • Human safety 	<ul style="list-style-type: none"> • Transit facility improvements • Traffic calming • Dedicated right-of-way for different modes
Increase the accessibility and mobility options available to people and for freight	<ul style="list-style-type: none"> • Multimodal considerations • Transit accessibility and level of service 	<ul style="list-style-type: none"> • Prevention of bottlenecks • Segmentation prevented • Intermodal connectivity • Community-based economic development 	<ul style="list-style-type: none"> • System maintenance • Intermodal facilities • Planned Communities • Mixed use zoning • Transit-oriented development • Land use controls
Protect and enhance the environment, promote energy conservation, and improve quality of life	<ul style="list-style-type: none"> • Air and water quality • Energy consumption • Livability of communities -- social cohesion, physical connection, urban design, and potential for growth 	<ul style="list-style-type: none"> • Environmental impact • Emissions reductions • Waterway preservation • Preservation and conservation of resources 	<ul style="list-style-type: none"> • Demand management • Scenic and historic preservation • Planned community development • Transit services • Transit-oriented development

Factor	Long Range Considerations	Project Selection Criteria	Sample Projects
Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight	<ul style="list-style-type: none"> • Intermodal transfer facilities • Rail and port access roads • Container policies • Freight policies/needs 	<ul style="list-style-type: none"> • Intermodal connectivity • Accessibility for people and freight • Congestion relief and improved safety 	<ul style="list-style-type: none"> • Intermodal facilities • Rail extension to ports • Transit or highway access to ports • Modal coordination with social services
Promote efficient system management and operation	<ul style="list-style-type: none"> • Life cycle costs • Development of intermodal congestion strategies • Deferral of capacity increases 	<ul style="list-style-type: none"> • Use of existing system • Congestion impacts • Community and natural impacts • Maintenance of existing facilities 	<ul style="list-style-type: none"> • Traffic, incident and congestion management programs
Emphasize the preservation of the existing transportation system	<ul style="list-style-type: none"> • Maintenance priorities • Demand reduction strategies • Reasonable growth assumptions • Alternative modes 	<ul style="list-style-type: none"> • Maintenance vs. new capacity • Reallocates use among modes • Reflects planning strategies 	<ul style="list-style-type: none"> • Management System development • Maintenance of roads, bridges, highways, rail • Traffic calming • Take-a-lane HOV • Enhancement of alternative modes

Source: TEA-21 Users Guide

The Lake~Sumter MPO will take steps to address safety of the transportation system by coordinating with our local governments and FDOT to evaluate access management on the region's roadways and traffic signal operation at major regional intersections, assessing high crash rate intersections and roadways and emphasizing safety as a consideration in prioritizing unfunded projects. The MPO will take steps to address security of the transportation system by developing a Continuity of Operations (COOP) Plan, participating in the Statewide Evacuation Study process being coordinated by the Regional Planning Councils, working with FHWA and FDOT to assess freight security in Lake and Sumter Counties, coordinating with the Leesburg International Airport in their planning efforts, evaluating the region for potential secure truck stops, coordinating with the United States Coast Guard as our lakes become more of a means of regional travel, and working with the Florida Central and CSX Railroads as freight opportunities expand and passenger rail becomes more of a reality in Orlando and Central Florida.

Coordination between the *Florida Transportation Plan* and the local government comprehensive plans is required by Rule 9J-5 of the Florida Administrative Code. The *Florida Transportation Plan* is currently being updated for 2025; however, the latest goal and objectives are not yet available. As these become available, review against the Lake~Sumter MPO Goals and Objectives is recommended. Currently, the goals and objectives for the Lake~Sumter MPO Long Range Transportation Plan are in concert and compatible with the TEA-21 Planning Factors and the goals and objectives of the 2020 FTP.

Public Involvement and Coordination

It is vital that significant public input is incorporated in the development of the goals and objectives for the Lake~Sumter MPO Long Range Transportation Plan. A summary of the public involvement efforts is provided here, but for the full discussion refer to the Public Involvement Plan in Chapter 2.

The TEA-21 legislation requires a proactive public involvement program in transportation planning efforts. To accomplish proactive public involvement, the Lake~Sumter MPO must provide complete information, timely public notice, and support continuing involvement of the public in developing transportation plans. TEA-21 not only requires opportunities for public input and explicit consideration of public comments but also requires response to public input. The public must be assured that their inputs are valued and considered in decision making and that the time and energy expended was meaningful and worthwhile. The Public Involvement Plan (PIP) for this Long Range Transportation Plan update has been fashioned to meet the requirements of the Federal, State and local public involvement mandates.

SAFETEA-LU has expanded requirements regarding public involvement. These specific requirements are described in Chapter 2.

The following provides a summary of the public involvement and coordination efforts that ensure that the general public and citizens of the MPO area are fully engaged in the identification, development, and documentation of the transportation goals and objectives for their communities. In addition to the development of goals and objectives, the PIP identifies numerous opportunities for the general public and agency staff to identify appropriate performance measures. The presentation, review, and discussion of the goals and objectives will occur at the scheduled MPO Board, Technical Advisory Committee (TAC) and Citizen Advisory Committee (CAC) meetings that coincide with the project schedule. Additionally, the first Public Workshop as identified in the PIP for the LRTP update includes a presentation and discussion period for the goals and objectives. Schedules for these meetings are provided later in this section.

Representatives from diverse backgrounds should be recruited to represent the following public and private sector interests:

Public Sector Representatives

- Technical Staff from Municipalities
- Public Officials from Municipalities
- Airports
- Community Coach
- FDOT
- Human Service Agencies
- Geographic Diversification
- Others as Identified

Private Sector Representatives

- Chamber of Commerce
- Major Employers
- Community Leaders
- Freight Industry
- Minority Community
- Elderly Community
- Low-Income Community
- Geographic Diversification
- Others as Identified

The goals and objectives will be discussed and evaluated in numerous venues, as described previously. The following provides specific meetings, locations, dates and times:

- Lake~Sumter MPO Board – The MPO Board meets on the fourth Wednesday of each month, at 2:00 pm in Room 233 of the Lake County Administration Building.



- MPO Technical Advisory Committee (TAC) – The TAC meets on the second Wednesday of each month, at 2:00 pm.
- MPO Citizens Advisory Committee (CAC) – The CAC meets on the second Wednesday of each month, at 4:00 pm, following the TAC meeting.
- Transportation Disadvantaged Coordinating Board (TDCB) – The TDCB meets quarterly on the third Monday of every third month, at 2:00 pm.

As part of the Long Range Transportation Plan Development Process, two consensus building workshops and two environmental justice workshops were facilitated to directly involve the public in the Long Range Planning process. The results of these workshops is discussed in Chapter 2.

Designated Activity Centers and Intermodal Facilities

The Federal transportation planning regulations encourage efficiency of access to intermodal facilities, and consideration of access to airports and ports. The State of Florida's emphasis on Strategic Intermodal Systems (SIS) as implemented by Florida Department of Transportation further supports the need for significant planning around the key activity and intermodal resources in the MPO area. In Figure 3-1, the locations of airports, rail terminals, and regional bus system stations in Lake County and eastern Sumter County are illustrated. The facilities on the Strategic Intermodal System (SIS) are identified in Figure 3-2. The performance standards of these roads are established by FDOT and should be adopted into the Long Range Transportation Plan for the Lake~Sumter MPO.

The transportation facilities that are on the Strategic Intermodal System (SIS) plan as developed and maintained by FDOT are listed below.

1. Florida's Turnpike (SR 91): Orange County Line to Lake~Sumter MPO boundary
2. US 27: Polk County Line to Florida's Turnpike at exit 289
3. Florida Central Railroad Line: Orange County Line to Umatilla (Emerging)
4. SR 40: Marion County to Volusia County (Emerging)

In addition to intermodal facilities, the Long Range Transportation Plan provides for access to major activity centers. Activity centers identified in Lake and eastern Sumter Counties include:



- 1) Downtown Leesburg
- 2) Downtown Eustis
- 3) Downtown Mt. Dora
- 4) Downtown Clermont
- 5) Downtown Tavares
- 6) Florida Hospital/Waterman
- 7) South Lake Hospital/UCF
- 8) Leesburg Regional Medical Center
- 9) Lake-Sumter Community College
- 10) Lake Square Mall
- 11) Christopher C. Ford Central Park
- 12) Florida Turnpike/CR 470 Employment Center
- 13) West 44 Industrial Center
- 14) Lake Louisa State Park
- 15) Alexander Springs
- 16) The Villages
- 17) Southridge Industrial Park

Roads and services providing access to the intermodal facilities and major activity centers can be favored for funding over other roads and services, if the community so desires. This is fully consistent with the Florida Department of Transportation's plans and objectives for these critically important facilities and resources.

SAFETEA-LU placed an additional emphasis on intermodal connectivity, an ideal that, as seen here and in the Goals, Objectives and Performance Measures in Table 3-3, below, is supported in the Lake~Sumter MPO 2025 Long Range Transportation Plan. The Lake~Sumter MPO considers connections to, from and between our Strategic Intermodal System facilities (including those listed above, plus those in Sumter County, i.e., I-75, Florida Turnpike and SR 44) to be vital towards sustaining mobility within our region. The 2025 LRTP includes several projects providing better access to these facilities. As laid out in the Lake County Transit Development Plan (TDP) and the 2025 LRTP, the MPO has worked closely with the Lake County Community Transit Coordinator (CTC) to bring fixed route bus service to US 441 in North Lake County (anticipated start date May 21, 2007). This service will provide connections to and between unincorporated Lake County, six Lake County cities, the Villages, the Lake Square Mall and the Leesburg International Airport. Through a coordinated effort with LYNX, Orlando's Regional Transportation Authority (RTA), two LYNX bus routes now service South Lake County. We will continue to work with LYNX, as well as Sumter County Transit and SunTran, in Ocala, to provide even more regional connections.



Goals, Objectives and Performance Measures

The following table provides the goals and objectives of the 2025 Long Range Transportation Plan. In support of these goals and objectives, specific performance measures have been provided. The performance measures are used to provide objective and subjective criteria, by which, the actions required to obtain the stated goals and objectives can be monitored.

Table 3-3: Goals, Objectives, and Performance Measures

GOAL 1: Provide a multi-modal transportation system that serves the local and regional movement of and connections among people, jobs, goods, and services.

Goals and Objectives	Performance Measures	Qualitative	Quantitative
<p>1.1: Provide efficient, frequent, convenient, competitive transit service for the transportation disadvantaged and as an alternative travel mode.</p>	<p>1.1.1: Expand service span (hours of service) on top-performing routes.</p> <p>1.1.2: Coordinate with MetroPlan and Lynx to enhance inter-county bus service in Lake County.</p> <p>1.1.3: Evaluate percent of population within ¼ to ½ mile of bus route.</p> <p>1.1.4: Monitor percent of population outside of bus route area served by demand responsive public transportation.</p> <p>1.1.5: Monitor annual public transportation ridership</p>		<p>✓</p>

Goals and Objectives	Performance Measures	Qualitative	Quantitative
1.2: Enhance bicycle and pedestrian mobility.	1.2.1: Provide bicycle lanes and sidewalks on all new and rebuilt collector and arterial streets in urban areas. 1.2.2: Expand bicycle and pedestrian facilities on existing arterial and collector streets. 1.2.3: Increase the number of miles of off-street bicycle and pedestrian trails		✓
1.3: Improve the movement of freight and goods on roadway system	1.3.1: Provide adequate level of service on existing and future designated truck routes in terms of % of truck routes at or above V/C equal to 1.0.		✓
1.4: Improve inter-modal facilities and connectivity	1.4.1: Review LOS on roadways providing access to intermodal facilities. 1.4.2: Improve connectivity between multi-modal facilities to include future freight, commuter, and bus transit expansions. 1.4.3: Identify additional park-and-ride facilities to support Carpooling and existing/future transit systems.		✓

Goals and Objectives	Performance Measures	Qualitative	Quantitative
1.5: Minimize roadway and intersection traffic congestion and vehicular delay	1.5.1: Review percent of VMT operating below the adopted level of service standards for roadways. 1.5.2: Identify "Top 10" critical intersections based on LOS and delay standards for operational enhancements.		✓
1.6: Provide efficient hurricane/emergency evacuation and /or shelter response routes	1.6.1: Review conditions on routes providing access to emergency shelters, evacuation routes, and other key emergency response routes including roadways around public facilities, schools, stadiums, etc. 1.6.2: Monitor accessibility to shelters via LOS standards.	✓	
1.7: Minimize emergency response time	1.7.1: Monitor based on percent of VMT occurring below the adopted LOS standards		✓
1.8: Enhance and provide the sidewalk and bicycle facilities to include connectivity to other like facilities and major trip generators	1.8.1: Measure the percent of State Highway miles with sidewalks and bicycle accommodations. 1.8.2: Measure the percent of county highway miles with sidewalks and bicycle accommodations. 1.8.3: Measure the miles of local and regional off-road trail system		✓

Goals and Objectives	Performance Measures	Qualitative	Quantitative
1.9: Enhance the existing roadway system capacity through implementation of system management, demand management, and advanced technologies	1.9.1: Ensure that the Plan includes TSM and TDM-type strategies aimed at reducing SOV modes, such as rideshare lots, access management standards, intersection monitoring, etc. 1.9.2: Include review of ITS elements in the planning and design of major new or enhanced roadway facilities	✓	
1.10: Provide more transportation corridors connecting major growth and activity centers/areas	1.10.1: Monitor the change in lane miles for new corridors		✓

GOAL 2: Provide a transportation system that is safe for residents, visitors and businesses.

Goals and Objectives	Performance Measures	Qualitative	Quantitative
2.1: Reduce overall crash rates and crash severities at intersections and along roadways.	2.1.1: Monitor crash data in terms of numbers and severity of crashes at specific high crash intersections and spot locations. 2.1.2: Monitor crashes per VMT as a measure of system performance. 2.1.3: Apply access management principles and standards during enhancement or capacity improvements to major roadways to preserve the safety and operations of the corridor.		✓

Goals and Objectives	Performance Measures	Qualitative	Quantitative
2.2: Reduce crash rates involving school and transit busses.	2.2.1: Annually monitor the frequency and severity of transit and school bus crash occurrences at or near transit stops and school facilities.		✓
2.3: Reduce crash rates involving pedestrians and bicyclists.	2.3.1: Annually monitor the intersection and spot locations with pedestrian and bicycle involved crashes. 2.3.2: For high crash locations, involving pedestrians and bicyclists, develop specific enhancement plans to address the deficiencies. 2.3.3: Complete an inventory of pedestrian and bicycle accommodations around elementary and middle schools.		✓
2.4: Reduce crash rates at railroad crossings.	2.4.1: Monitor traffic volumes at rail grade crossings. 2.4.2: Coordinate with County Public Works departments to annually monitor the physical condition, traffic volume, and crash history of rail grade crossings on the County road system. 2.4.3: Coordinate with FDOT for rail highway crossing data and monitoring for grade crossings on the state roadway system.		✓



GOAL 3: Preservation of Lake and Sumter Counties' investment in transportation in a cost-feasible manner.

Goals and Objectives	Performance Measures	Qualitative	Quantitative
3.1: Maintain transportation facilities.	3.1.1: Provide a budget sufficient for maintaining and rehabilitating facilities at least at current levels.	✓	
3.2: Ensure a transportation plan that is cost effective and affordable within future funding levels.	3.2.1: Adopt a cost-feasible plan which directly relates to the future and anticipated funding sources and levels.	✓	
3.3: Incorporate innovative cost-effective technologies.	3.3.1: Utilize Intelligent Transportation Systems (ITS) where possible to maximize efficiency of existing facilities.	✓	
3.4: Maximize transportation funding from all sources, including toll revenues and other user fees.	3.4.1: Monitor lane miles of roadway network developed by alternative funding sources like toll revenues or other user fees.		✓
3.5: Maximize Lake~Sumter's share of state and federal transportation funding allocations.	3.5.1: Support and promote the need to have and maintain strong strategic regional alliances and partnerships. 3.5.2: Monitor the annual funding allocations and rates coming to Lake~Sumter to support the transportation program.	✓	

GOAL 4: A transportation system that is coordinated and consistent with current and future agency plans of Lake and Sumter Counties, its communities and neighbors.

Goals and Objectives	Performance Measures	Qualitative	Quantitative
4.1: Support collaborative Land Use and Transportation Planning efforts that will ensure the community can develop in an efficient and sustainable way.	4.1.1: Cooperate, coordinate and collaborate as appropriate with Lake and Sumter Counties Planning, Public Works, and Environmental departments, FDOT and local transportation planning groups to ensure the achievement of efficient, sustainable and mutually supportive land use and transportation systems.	✓	
4.2: Provide a transportation system that is coordinated and consistent with agency plans of Lake and Sumter Counties, its communities and neighbors.	4.2.1: Coordinate transportation planning efforts with the MPO Alliances, MetroPlan, Ocala/Marion MPO, Volusia County MPO, NCFRPC, ECFRPC, neighboring counties, and other planning entities to ensure regional mobility.	✓	
4.3: Implement transportation improvement projects in a manner coordinated with orderly development within the County.	4.3.1: Support the transportation system plans of the cities and towns within and adjacent to the MPO boundary. 4.3.2: Identify, preserve and acquire right-of-way necessary for future growth.	✓	
4.4: Ensure consistency with the County's right of way (ROW) Thoroughfare Identification Map to plan for sufficient space for transportation enhancements.	4.4.1: Perform annual reviews of the LRTP and ROW Thoroughfare Identification maps for Lake and Sumter Counties.	✓	

GOAL 5: An aesthetically pleasing transportation system which minimizes impact on the social resources, communities, and the natural and built environment.

Goals and Objectives	Performance Measures	Qualitative	Quantitative
5.1: Minimize the impact of transportation facilities and services on the environment	5.1.1: Design all new projects so that their impact on the natural and built environment is minimized. 5.1.2: Include aesthetic enhancement projects on arterial and collector streets.	✓	
5.2: Incorporate Federal Environmental Justice principles in all planning activities to ensure maximum representation for traditionally under-represented and minority populations.	5.2.1: Involve all Lake and Sumter County constituents in transportation planning decision making, with a special emphasis on including low-income, elderly, and minority populations.	✓	
5.3: Minimize adverse impacts on minority, elderly, and low-income populations.	5.3.1: Consider percent of minority, elderly, or low-income population or communities within ¼ to ½ mile of roadway expansion projects. 5.3.2: Compare the impacts or frequency of impacts to the minority, elderly or low-income areas versus the general population areas.		✓



Goals and Objectives	Performance Measures	Qualitative	Quantitative
<p>5.4: Ensure that the Plan supports community social values through developing transportation systems that are user friendly, accessible, interconnected, and aesthetically appropriate.</p>	<p>5.4.1: Actively solicit input from community groups, businesses, underserved populations, etc. through the MPO's Citizens Advisory Committee (CAC).</p> <p>5.4.2: Encourage and monitor the diversity of the CAC membership.</p> <p>5.4.3: Monitor miles of designated scenic byways</p> <p>5.4.4: Track percent of roadway funds expended on beautification elements.</p>	<p>✓</p>	
<p>5.5: Minimize the disruption to established communities, infill areas, environmentally sensitive areas, public lands, recreational areas, and cultural/historic resources.</p>	<p>5.5.1: Monitor the lane miles of new roadways or capacity expansions in areas designated as sensitive.</p> <p>5.5.2: Monitor acres of wetlands disturbed.</p> <p>5.5.3: Monitor miles of new roadway in conservation areas</p> <p>5.5.4: Monitor number of bear or other species crossings provided.</p>		<p>✓</p>
<p>5.6: Address the requirements of EPA conformity regulations.</p>	<p>5.6.1: Consistently monitor that the Plan's goals, objectives and outcomes meet the EPA standards.</p>	<p>✓</p>	

Consistency with TEA-21 Planning Factors

It is important to ensure that the specific goals and objectives established by Lake~Sumter MPO fully address, and are consistent with, the Planning Factors identified by TEA-21. The following tables provide a summary of the Lake~Sumter MPO Goals cross referenced with the key factors and goals of the TEA-21 legislation. It was determined, based on this review, that the Lake~Sumter MPO goals and objectives adequately address the key Planning Factors from the federal legislation.

Table 3-4: TEA-21 Planning Factors and the Florida Transportation Plan Goals

LRTP Goal Number	TEA-21 Planning Factors							Florida Transportation Plan Goals			
	Economic	Safety	Accessibility	Environment	Intermodalism	Efficiency	Preservation	Safety	Protection of Investment	Interconnectedness	Mobility, Environment, Community Values
1		✓	✓		✓	✓		✓		✓	✓
2	✓	✓	✓			✓		✓			
3	✓				✓	✓	✓		✓		
4	✓		✓	✓	✓	✓	✓			✓	
5			✓	✓	✓		✓				✓

Relevant Policies

In addition to establishing goals, objectives, and measures of effectiveness, local governments have established a variety of policies which also will guide the formation of the Long Range Transportation Plan. These policies either reflect adopted standards, are the results of previous planning studies, represent a consensus of community opinion, or set a policy direction which should be followed during preparation of the Long Range Transportation Plan. Of the policies adopted in various local government comprehensive plans or proposed by the comprehensive plan update transportation subcommittee, the policies outlined below have been identified as particularly relevant to the development of the Long Range Transportation Plan:

Eustis

- The City of Eustis will coordinate with the FDOT, Lake County, and the municipalities of Lady Lake, Fruitland Park, Tavares, and Mount Dora to alleviate, through planning improvements, any existing or projected deficiencies along US 441 and US 27/441.

Groveland

- Improvements to the transportation system shall be prioritized based on safety considerations; existing deficiencies; multimodal and environmental considerations; physical, economic, and policy constraints; contribution to quality urban design; required right-of-way needs; and level of service.
- A new road linking CR 478 with US 27 shall be constructed by the developers in association with the new mixed-use developments north of CR 478.
- The City shall work with the Lake~Sumter Metropolitan Planning Organization to investigate the feasibility of realigning SR 50 through the City center.

Howey-in-the-Hills

- SR 19 (Palm Ave) should not increase the number of lanes to preserve its scenic roadway designation.
- The Town should, in cooperation with Lake County, try to establish a north-south route from Silver Springs Citrus Cooperative to SR 19 at the south end of town to reduce traffic noise within the town due to truck traffic and increase safety and efficiency of the Town's circulation system.



Leesburg

- Bike paths shall be established on one side of every arterial and collector street with sidewalks established on the opposite side of all arterial streets.
- Ensure that all roads serviced by public transit routes function at a level of service sufficient to support bus service.

Mascotte

- SR 50 (Myers Blvd) is classified as a truck route.

Tavares

- Lake Eustis Drive within the city limits is designated as a scenic route with the maximum lanes allowable as two.

Lake County

- Except in some municipalities where higher level of service standards have been set, Lake County also has adopted level of service standards for the State highway system in accordance with Florida Department of Transportation's Rule Chapter 14-94, "Statewide Minimum Level of Service Standards for State Highway System", a current version of which is provided in Appendix 3A.
- Roadway level of service standards have been established in local government comprehensive plans for all major roads in the County. Generally, level of service standards of "C" or "D" have been established, but exceptions exist. The level of service standards for all major roads in Lake~Sumter MPO, compiled from the local government comprehensive plans, is provided in Appendix 3B.
- All proposed development will be reviewed for compliance and consistency with the adopted level of service standards on all roads on which the developments have an impact, including developments in adjacent counties and within municipalities.
- Lake County will use transportation impact fees for improvements to arterial and collector roads as well as public transportation service capital costs and non-motorized transportation infrastructure improvements.
- Lake County shall continue to identify dangerous railroad crossings and provide signalization at all hazardous railroad crossings, in coordination with the Florida Department of Transportation.

- The Lake~Sumter MPO, in coordination with the Florida Department of Transportation, Lake, and Sumter Counties, and municipalities within Lake County shall make improvements to roadways in the following relative priorities:
 - Project's ability to enhance capacity within the Counties' roadway network;
 - Project's ability to enhance safety within the Counties' roadway network;
 - Project's ability to reduce the cost of regular and routine maintenance to the Counties' roadway network; and
 - Project's ability to improve access and to provide public services to developed areas.

- Lake and Sumter Counties shall also provide for future transportation roadway improvements to meet projected demands of growth and to preserve the adopted level of service standards.

- The roadways listed below have been designated as scenic corridors. As such, the maximum through lane standards shall be two lanes.
 - CR 452, from the City of Tavares to the City of Mount Dora
 - East Crooked Lake Drive, from US 441 to County Club Drive
 - Heim Road, Virginia Avenue to CR 19A (Mt. Dora)
 - Lake Shore Drive, from Hook Street to the Palatka Bridge (Clermont)
 - Lake Shore Drive, from Washington Street to CR 561A (Minneola)
 - Lake Shore Drive from Mount Dora City Limit to Virginia Avenue
 - Lake Shore Drive/Lake Eustis Drive, from the City of Tavares to the City of Eustis
 - Lake Eustis Drive within Tavares City Limits
 - Old US 441, from Mount Dora City Limit to Virginia Avenue
 - Virginia Avenue, 5th Avenue to Lake Shore Drive (Mt. Dora).
 - CR 455 from SR 19 to SR 50

- Lake County shall coordinate with and support Lake County Rails to Trails, Inc. and any other local organizations to further the program of acquiring abandoned railroad rights-of-way within the County for use as multi-modal paths. Paths will include provisions for equestrian use whenever possible.

- Lake County will support, as resources permit, the following proposed Rails to Trails projects:
 - Franks Farm
 - Howey-in-the-Hills to Okahumpka
 - Leesburg to Eustis
 - Leesburg to Lady Lake Trail
 - Leesburg to Okahumpka
 - Monteverde Junction

- Ocala National Forest Ravenswood to SR 19
 - Sorrento to Lake/Seminole County Line
 - Tavares and Gulf
 - Tavares/Leesburg
 - Seminole Woods/Springs
- Lake and Sumter County has adopted the following minimum right-of-way standards for collector and local roads (measured according to corridor width).

	Major Collector	Minor collector
Urban	80'	70'
Rural	100'	80'

- Paved shoulders for pedestrian/bike paths are to be placed along roadways identified in the proposed Bikeway Plan.
- Lake County has adopted maximum through-lane standards for the listed roadway classifications noted below:

Road Classification	Maximum Number of Through Lanes
Principal Arterial	6
Minor Arterial	6
Major Collectors	4
Minor Collectors	4
Local Roadways	2
Scenic Roadways	2

- Fully controlled limited access principal arterials shall have a maximum through-lane standard of eight (8) lanes including two (2) high-occupancy vehicle or special use lanes. Maximum through-lane standards shall only apply to motorized traffic lanes.
- Lake and Sumter County has adopted the following right-of-way standards as minimum right-of-way standards for arterials (measured according to corridor width);

Right-of-Way Width (Feet)

Type of Facility	4-Lane	6-Lane	8-Lane
Urban Arterial	94	128	
Suburban Arterial	174	200	
Rural Arterial	200	200	
Freeway	216	240	264

- SR25/US 27 from the Leesburg City Limits to Griffin Road at US 441 has been designated as a constrained facility.

Sumter County

- Sumter County has adopted a right-of-way standard for local roadways and collectors of 60 feet for a two lane facility.

The above policies have been considered in the development of this Plan.

Lake - Sumter MPO

2025 Long Range Transportation Plan

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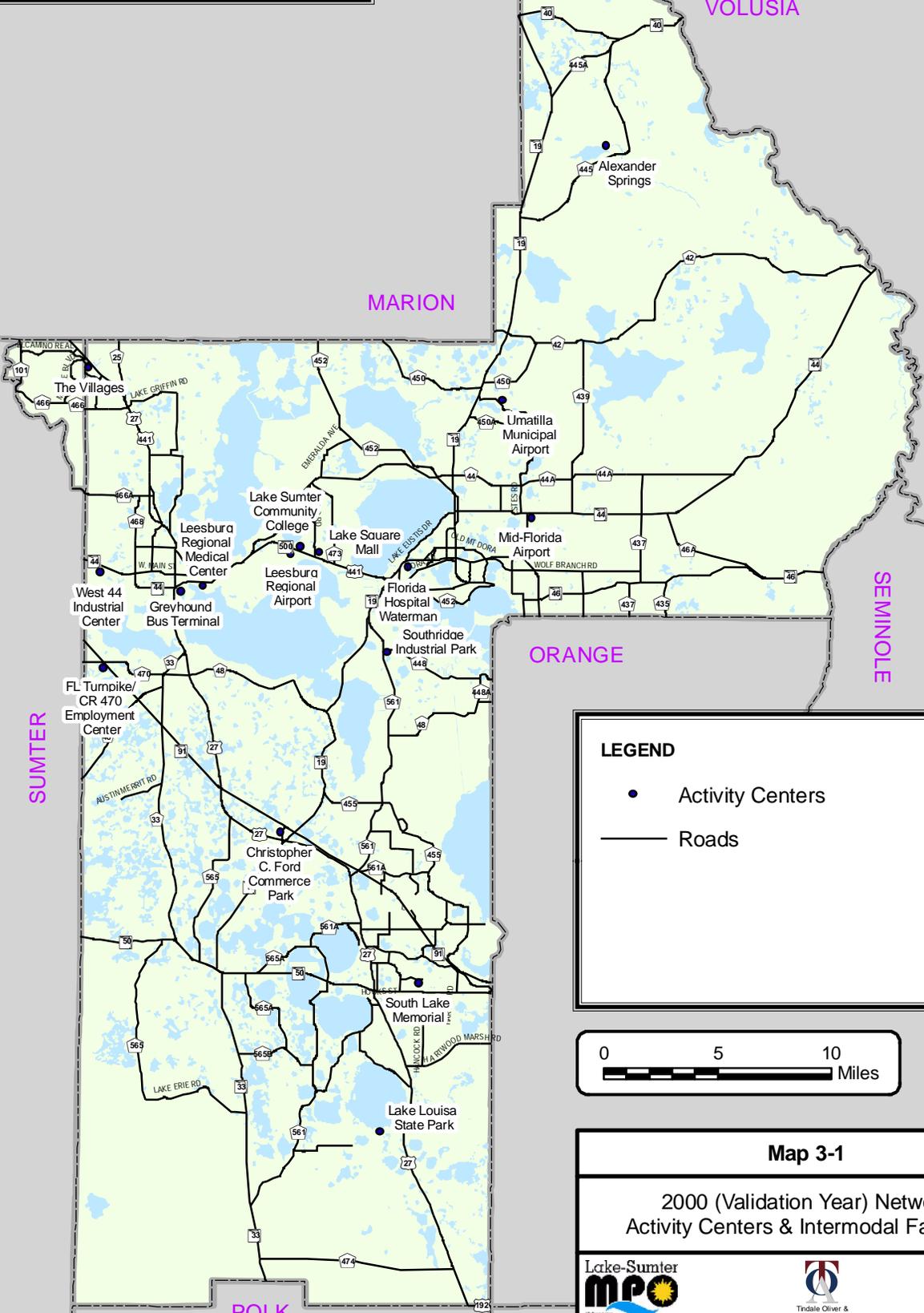
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LEGEND

- Activity Centers
- Roads



Map 3-1
 2000 (Validation Year) Network
 Activity Centers & Intermodal Facilities



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2025 Long Range Transportation Plan

2000 (Validation Year) Network
Strategic Intermodal System Facilities

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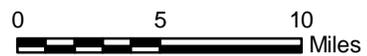
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-  SIS Highway
-  Emerging SIS Highway
-  Emerging SIS Railway
-  Other Roads



Map 3-2

2000 (Validation Year) Network
Strategic Intermodal System Facilities



Chapter 3 Appendix

Appendix 3A: Statewide Minimum Level of Service Standards..... 3A-1

Appendix 3B: Level of Service Standards for the Major Road Network 3B-1

Appendix 3A: Statewide Minimum Level of Service Standards

Statewide Minimum Level of Service Standards for the State Highway System

	Rural Areas ²	Transitioning Urbanized Areas ³ , Urban Areas ⁴ , or Communities ⁵	Urbanized Areas ⁶ under 500,000	Urbanized Areas over 500,000	Roadways Parallel to Exclusive Transit Facilities ⁷	Inside Transportation Concurrency Management Areas ⁸	Constrained ⁹ and Backlogged ¹⁰ Roadways
Intrastate¹¹							
Limited Access Highway (Freeway) ¹²	B	C	C(D)	D(E)	D(E)	D(E)	Maintain ¹⁵
Controlled Access Highway ¹³	B	C	C	D	E	E	Maintain
Other State Roads¹⁴							
Other Multilane	B	C	D	D	E	*16	Maintain
Two-Lane	C	C	D	D	E	*	Maintain

Level of service standards inside of parentheses apply to general use lanes only when exclusive through lanes exist.

1. The indicated **levels of service** designated lowest quality operations for the 100th highest volume hour of the year in the predominant traffic flow direction from the present through a 20-year planning horizon. The 100th highest hour approximates the typical peak hour during the peak season. Definitions and measurement criteria used for minimum level of service standards are based on the most recent updates of the Transportation Research Board Highway Capacity Manual “Special Report 209”. All level of service evaluations are to be based on “Special Report 209,” or a methodology which has been accepted by FDOT as having comparable reliability.
2. **Rural areas** are areas not included in a transportation concurrency management area, an urbanized area, a transitioning urbanized area, an urban area or a community.
3. **Transitioning urbanized areas** are the areas outside urbanized areas, but within the MPO Planning Boundaries. These areas are planned to be included within the urbanized areas within the next 20 years.
4. **Urban Areas** are places with a population of at least 5,000 and are not included in urbanized areas. The applicable boundary encompasses the 1990 urban area as well as the surrounding geographical area as agreed upon by FDOT, local government, and Federal Highway Administration (FHWA). The boundaries are commonly called FHWA Urban Area Boundaries and include areas expected to have medium density development before the next decennial census.
5. **Communities** are incorporated places outside urban and urbanized areas, or unincorporated developed areas having 500 population or more identified by local governments in their local government comprehensive plans and located outside of urban or urbanized areas.
6. **Urbanized areas** are the 1990 urbanized areas designated by the U.S. Bureau of Census as well as the surrounding geographical areas as agreed upon by the FDOT, Metropolitan Planning Organization (MPO), and Federal Highway Administration (FHWA), commonly called FHWA Urbanized Area Boundaries. The over or under 500,000 classifications distinguish urbanized areas with a population over or under 500,000 based on the 1990 U.S. Census.
7. **Roadways parallel to exclusive transit facilities** are roads generally parallel to and within one-half mile of a physically separated rail or roadway lane reserved for multi-passenger use by rail cars or buses serving large volumes of home/work trips during peak travel hours. Exclusive transit facilities do not include downtown people movers, or high occupancy vehicle lanes unless physically separated from other travel lanes.
8. **Transportation Concurrency Management Areas** are geographically compact areas designated in local government comprehensive plans where intensive development exists or is planned in a manner that will ensure an adequate level of mobility and further the achievement of

identified important state planning goals and policies, including discouraging the proliferation of urban sprawl, encouraging the revitalization of existing

downtowns and designated redevelopment areas protecting natural resources, protecting historic resources, maximizing the efficient use of existing public facilities, and promoting public transit, bicycling, walking and other alternatives to the single occupant automobile. Transportation concurrency management areas may be established in a comprehensive plan in accordance with Rule 9J-5, Florida Administrative Code.

9. **Constrained roadways** are roads on the State Highway System which FDOT has determined will not be expanded by the addition of two or more through lanes because of physical, environmental or policy constraints. Physical constraints primarily occur when intensive land use development is immediately adjacent to roads, thus making expansion costs prohibitive. Environmental and policy constraints primarily occur when decisions are made not to expand a road based on environmental, historical, archaeological, aesthetic or social impact considerations.

10. **Backlogged roadways** are roads on the State Highway System operating at a level of service below the minimum level of service standards, not programmed for construction in the first three years of FDOT's adopted work program or the five year schedule of improvements contained in a local government's capital improvements element, and not constrained.

11. **Intrastate** means the Florida Intrastate Highway System (FIHS) which comprises a statewide network of limited and controlled access highways. The primary function of the system is for high speed and high volume traffic movements within the state. Access to abutting land is subordinate to this function and such access must be prohibited or highly regulated. Highways included as part of this system are designated in the Florida Transportation Plan.

General use lanes are intrastate roadway lanes not exclusively designated for long distance high speed travel. In urbanized areas general use lanes include high occupancy vehicle lanes not physically separated from other travel lanes. **Exclusive through lanes** are roadway lanes exclusively designated for intrastate travel, which are physically separated from general use lanes and to which access is highly regulated. These lanes may be used for high occupancy vehicles and express buses during peak hours if the level of service standards can be maintained.

12. **Limited access highways (freeways)** are multilane divided highways having a minimum of two lanes for exclusive use of traffic in each direction and full control of ingress and egress; this includes freeways and all fully controlled access roadways.

13. **Controlled access highways** are non-limited access arterial facilities where access connections, median openings and traffic signals are highly regulated. The standards shown are the ultimate standards to be achieved for controlled access facilities on the Florida Intrastate Highway

System (FIHS) within a 20 year period. For rural two-lane FIHS facilities, the standard is “C” until such time as the facility is improved to four or more lanes when the “B” standard would apply. Signalized intersections are to be minimized on these facilities within 20 years making an uninterrupted flow standard generally applicable. Controlled access facilities on the FIHS currently not meeting the ultimate standards shall be allowed to remain on the FIHS with a “maintain” status.

14. **Other state roads** are roads on the State Highway System which are not part of the Florida Intrastate Highway System.

15. **Maintain** means continuing operating conditions at a level such that significant degradation does not occur based on conditions existing at the time of local government comprehensive plan adoption. For roadways in rural areas, transitioning urbanized areas, urban areas or communities, significant degradation means (1) an increase in average annual daily traffic volume of 5 percent above the maximum service volume, or (2) a reduction in operating speed for the peak direction in the 100th highest hour of 5 percent below the speed of the adopted LOS standard. For roadways in urbanized areas, for roadways parallel to exclusive transit facilities, or for intrastate roadways in transportation concurrency management areas, significant degradation means (1) an increase in average annual daily traffic volume of 10 percent above the maximum service volume, or (2) a reduction in operating speed for the peak direction in the 100th highest hour of 10 percent below the speed of the adopted LOS standard. For other state roads in transportation concurrency management areas, significant degradation means that amount defined in the transportation mobility element. For constrained roadways meeting or exceeding the level of service standards, “maintain” does not apply until the roadway is operating below the applicable minimum level of service standard.

16. * means the level of service standard will be set in a transportation mobility element that meets the requirements of Rule 9J-5.

Appendix 3B: Level of Service Standards for the Major Road Network

Lake - Sumter MPO

2025 Long Range Transportation Plan

2000 (Validation Year) Network
Level of Service Standard

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Los Standard

- B
- C
- D



Map 3B-1

2000 (Validation Year) Network
Level of Service Standard



Chapter 4: Data and Plan Preparation

This chapter describes the base study area data that was gathered throughout the development of the Long Range Transportation Plan. This chapter also provides an overview of the planning tools that were utilized for evaluating alternatives used for the developing the Needs Plan and the Cost Affordable Plan.

The first section of this chapter describes the base network and the development of the Existing + Committed roadway network. The base conditions are the conditions in year 2000, which correspond with the validation year of the Central Florida Regional Planning Model, Version 4 (CFRPM-IV) developed by a consultant under the direction of the Florida Department of Transportation. The Existing + Committed Network represent the roadway inventory that is reasonably expected to exist in the year 2010 resulting from roadway improvements documented in the Lake County and Sumter County Capital Improvement Plans and the FDOT Work Program.

The second section of this chapter discusses the planning tools used throughout the alternative development process. These tools include the travel demand forecasting model, the roadway inventory and analysis software, and other technical approaches that were utilized for the development of the Long Range Transportation Plan.

Base Network and Existing + Committed Network

The base network for the Long Range Transportation Plan represents the roadway network that existed in the year 2000. The year 2000 validation network is illustrated in Map 4-1. This network corresponds with the validation model network used in the Central Florida Regional Planning Model, Version 4.

The 2010 Existing + Committed network includes the base network plus any improvements that are expected to be constructed prior to the end of the year 2010 as identified at the beginning of the Needs Plan development in mid 2005. This network represents the base year for costing, as the improvements in the Existing + Committed network are assumed to be funded in the Lake County and Sumter County Capital Improvements Plans or the FDOT Work Program. This network was developed with the assistance of the Lake County Public Works Department and the Metropolitan Planning Organization staff. The Existing + Committed network is illustrated in Map 4-2. The improvements from 2000 to the 2010 existing + committed network are summarized in Table 4-1.

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2025 Long Range Transportation Plan

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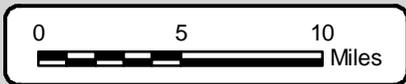
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		NUMBER OF LANES			
		2	3	4	6
ROAD TYPE	One-Way	---			
	Undivided	—	—	—	—
	Divided	—	—	—	—
	Freeway	—	—	—	—

 New or Expanded Roads



Map 4-1

2000 (Validation Year) Network
Number of Lanes & Road Type



Lake - Sumter MPO

2025 Long Range Transportation Plan

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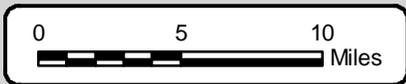
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		NUMBER OF LANES			
		2	3	4	6
ROAD TYPE	One-Way	---			
	Undivided	—	—	—	—
	Divided	—	—	—	—
	Freeway	—	—	—	—

 New or Expanded Roads



Map 4-2
2010 Existing + Committed Network
Number of Lanes & Road Type







Table 4-1: 2000 to 2010 Roadway Improvements

On Street	From Street	To Street	2000 Road Type	2010 Road Type
ARDICE AV	KURT ST	SR 19	2-Lane Undivided	2-Lane Divided
BAPTIST ISLAND RD	TUSCANOOGA RD	CR 33	N/A	2-Lane Undivided
BUENOS AIRES BLVD	ELCAMINO REAL	US 27/US 441	2-Lane Undivided	4-Lane Divided
CAPT. HAYNES	DEAD RIVER RD	US 441	N/A	2-Lane Undivided
CHERRY LAKE RD	CR 478	E APSHAWA RD	N/A	2-Lane Undivided
CR 101	CR 466	CR 466A	N/A	4-Lane Divided
CR 19A (E)	CR 441 (OLD)	CR 19A (W)	2-Lane Undivided	4-Lane Divided
CR 441 (OLD)	SR 19	MERRY RD	N/A	2-Lane Undivided
CR 466	CR 101	US 27/US 441	2-Lane Undivided	4-Lane Divided
CR 478	US 19	SOUTH LIBBY RD	N/A	2-Lane Undivided
DAVID WALKER RD	CR 441 OLD	KURT ST	N/A	2-Lane Undivided
DEAD RIVER RD	CONNECTOR	S DUNCAN	N/A	2-Lane Divided
DEWEY ROBBINS RD	SR 25 (US 27)	S. DEWEY ROBBINS	N/A	2-Lane Undivided
E. APSHAWA RD	CHERRY LAKE RD	SR25 (US 27)	N/A	2-Lane Undivided
E. DEWEY ROBBINS RD	S. DEWEY ROBBINS	SR 19	N/A	2-Lane Undivided
E. GRAND HWY	EAST AVE	SR 25 (US 27)	N/A	2-Lane Divided
EAST AVE	LAKE SHORE DR	E GRAND HWY	N/A	2-Lane Divided
EDWARDS RD	US 27/US 441	GRAYS AIRPORT RD	N/A	2-Lane Undivided
EICHELBERGER	SR 19	CR 561	N/A	2-Lane Undivided
ELCAMINO REAL	CR 101	BUENOS AIRES BLVD	2-Lane Undivided	4-Lane Divided
GRAND HWY	HOOK ST	SR 50	N/A	2-Lane Undivided
GRASSY LAKE RD	TURKEY FARMS RD	SULLIVAN RD	N/A	2-Lane Undivided
HANCOCK RD	LAKE LOUISA RD	HARTWOOD MARSH RD	N/A	2-Lane Undivided
HANCOCK RD	SR 50	CR 50	N/A	4-Lane Divided
HARTLE RD	HARTWOOD MARSH RD	SR 50	N/A	2-Lane Undivided
HARTWOOD MARSH RD	SR 25 (US 27)	ORANGE COUNTY	2-Lane Undivided	4-Lane Divided
HOOKS ST	SR 25 (US 27)	HANCOCK RD	N/A	4-Lane Divided
HUFFSTELLER RD	LAKESHORE DR	KURT ST	N/A	2-Lane Undivided
HUNT TRACE BLVD	CITRUS TOWER BLVD	HANCOCK RD	N/A	2-Lane Undivided
JACKS LAKE RD	JOHNS LAKE RD	SR 50	N/A	4-Lane Divided
JALARMY RD	CR 561 A	CHERRY LAKE RD	N/A	2-Lane Undivided
JOHNS LAKE RD	SR 25 (US 27)	EAGLE LAKE RD	N/A	4-Lane Divided
JOHNS LAKE RD	EAGLE LAKE RD	HANCOCK RD	N/A	2-Lane Undivided
LAKE LOUISA RD	HANCOCK RD	SR 25 (US 27)	N/A	2-Lane Undivided
LAKESHORE DR	HOOK ST	LAKE AVE	N/A	2-Lane Undivided
LIBBY RD	S. LIBBY RD	N. LIBBY RD	N/A	2-Lane Undivided
NORTH-SOUTH CORRIDOR	CR 466	OAK ST	N/A	2-Lane Undivided
MORSE BLVD	CR 101	CR 466	N/A	2-Lane Undivided
MT. HOMER RD	LAKE EUSTIS DR	DAVID WALKER RD	N/A	2-Lane Undivided
N. LIBBY RD	LIBBY RD	SR 25 (US 27)	N/A	2-Lane Undivided
OAK ST	NORTH-SOUTH CORRIDOR	CR 25	N/A	2-Lane Undivided
RADIO RD	SR 500 (US 441)	TREADWAY SCHOOL RD	2-Lane Undivided	4-Lane Divided
S. CLERMONT CONN	LAKESHORE DR	JACKS LAKE RD	N/A	4-Lane Divided

On Street	From Street	To Street	2000 Road Type	2010 Road Type
S. DEWEY ROBBINS	E. DEWEY ROBBINS RD	DEWEY ROBBINS RD	N/A	2-Lane Undivided
S. LIBBY RD	CR 478	LIBBY RD	N/A	2-Lane Undivided
SR 25 (US 27)	SR 530 (US 192)	CR 561A	4-Lane Divided	6-Lane Divided
SR 44	SUMTER CO. LINE	CR 468	2-Lane Undivided	4-Lane Divided
SR 44	CR 468	SR 500 (US 441)	4-Lane Undivided	4-Lane Divided
SR 44B	SR 500 (US 441)	SR 44	2-Lane Undivided	4-Lane Divided
SR 50	HANCOCK RD	ORANGE CO. LINE	4-Lane Divided	6-Lane Divided
SR 500 (US 441)	SR 44	CR 44B	4-Lane Divided	6-Lane Divided
STEVES RD	US 27	HOOKS ST	N/A	2-Lane Undivided
THOMAS AV	CR 460	CR 25A	N/A	2-Lane Undivided
TUSCANOOGA RD	SUMTER CO. LINE	HONEYCUT RD	N/A	2-Lane Undivided
TUSCANOOGA RD	HONEYCUT RD	SR 50	N/A	2-Lane Undivided
US 27/US 441	SR25 (US 27)	CR 466A (S)	4-Lane Undivided	6-Lane Divided
US 27/US 441	CR 25A (S)	WEST BOONE CT	4-Lane Divided	6-Lane Divided
WOODLEA RD	CONNECTOR	S DUNCAN	N/A	2-Lane Divided
WOODLEA / DEAD RIVER CONNECTOR	WOODLEA RD	DEAD RIVER RD	N/A	2-Lane Divided

Planning Tools

Several tools were utilized throughout the Needs Plan and Cost Affordable Plan alternative development process. These tools were used to forecast traffic conditions in the future, analyze those traffic conditions based on the improvements in the alternatives, and display the alternatives using maps to convey information in a format fit for general understanding. These tools include:

- The Central Florida Regional Planning Model, Version 4 (CFRPM-IV), a travel demand forecasting model used to forecast roadway conditions in the future. This model is based on the Florida Standard Urban Transportation Model Structure (FSUTMS) in a CUBE environment.
- The Visual Transportation Inventory Management and Analysis Software, or vTIMAS, a multi-function tool previously developed by the consultant that was used to analyze forecasted roadway conditions and project roadway improvement costs
- ArcMap Geographic Information Systems software, used to create maps and to perform calculations based on geographic features, such as length, acreage, and even complex spatial overlay calculations

The organization and interaction of these tools is diagrammed in Figure 4-1. This figure illustrates where each tool was applied in the alternative evaluation process. Each of these tools is discussed in greater detail below.

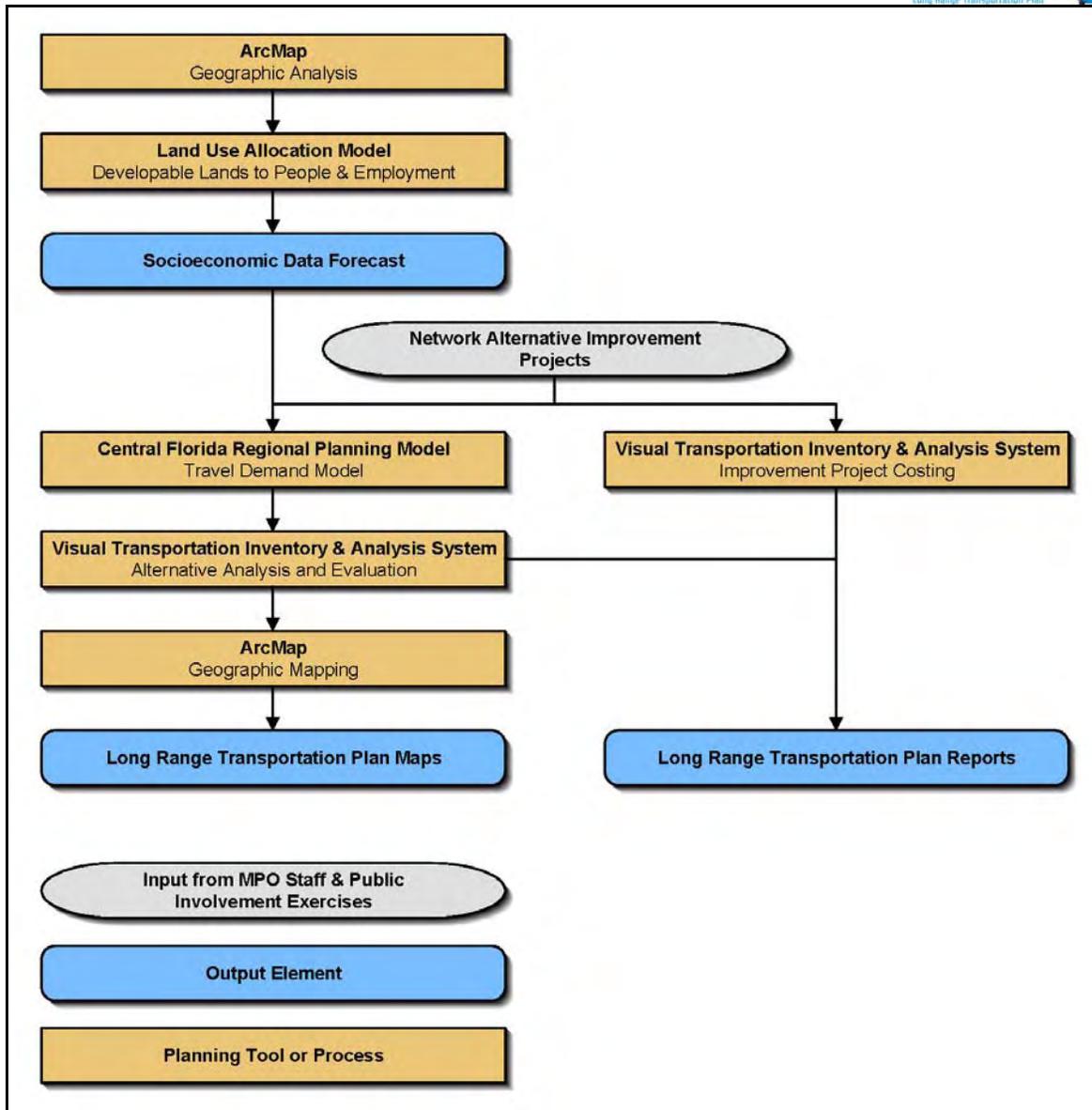


Figure 4-1: L RTP Tools Organization and Process

The Central Florida Regional Planning Model Version 4

The Central Florida Regional Planning Model Version 4 is a district-wide travel demand forecasting model that includes the geographic area that makes up the Florida Department of Transportation, District 5. The model includes the following counties in Central Florida:

- Lake
- Orange
- Flagler
- Sumter
- Seminole
- Brevard
- Marion
- Volusia
- Polk



CFRPM-IV is a Cube-TRANPLAN model, which uses TRANPLAN scripts in the Cube interface. The model was validated for the year 2000, meaning that the volumes forecasted for the year 2000 are within acceptable limits to the actual count volumes from the year 2000 for a sample of the links.

This model was used to forecast travel demands in the year 2025. To forecast these travel demands, the alternative network was coded into the model and the socioeconomic data that the model uses to generate trips was updated to represent forecast 2025 land use data.

The Visual Transportation Inventory Management and Analysis Software

The vTIMAS system is a multi-function application previously developed by Tindale-Oliver & Associates to assist in transportation planning. The vTIMAS system performs the following functions:

- Roadway inventory database management
- Improvement project costing
- Linking and importing model volumes
- Level of Service analysis

These software functions are described in detail below.

Roadway Inventory Database Management

The vTIMAS system manages roadway information at three levels, the Master Road Network level, the Analysis File level, and the Analysis Set level.

The Master Road Network includes data attributes that apply to all analysis years. These attributes do not normally change over time. These attributes include street names, From- and To-limit street names, Florida Intrastate Highway System (FIHS) and Strategic Intermodal System (SIS) designations, and GIS Mapping information.

The Analysis File level includes attributes that could be expected to change from year to year. These values include the number of lanes, road type, annual average daily traffic, and many of the level of service input values.

The Analysis Set level includes special attributes that are used while analyzing base-to-future year scenarios, such as when evaluating an LRTP alternative. The attributes stored at the Analysis Set level include the Raw Model Volume, the Smoothed Volume, the Volume Smoothing Method, as well as information relating to project costs. The Raw Model Volume is the volume that the model forecasts without any adjustments. The Smoothed Volume is a forecasted traffic volume that is adjusted based on the performance of the model in validation year. The method of adjusting the Raw Model Volume is the Smoothing Method. These smoothing methods are discussed in detail in Technical Appendix 4A.

Project Improvement Costing

Part of the vTIMAS System includes functionality to produce estimated project costing. This project costing is based on several user-selectable methods available in the system. The vTIMAS software can calculate the costs for right-of-way, design, construction, and unique costs through calculations based on length, total lane miles, added lane miles, or percent of another cost (such as percent of construction cost). The module also accommodates alternative costing methods such as the use of manual costs. More information on the unit costs applied can be found in Chapter 6 of this report.

Linking and Importing Model Volumes

One of the significant processes in vTIMAS is called FSUTMS Volumes Input, or FVolsIn. The FVolsIn process links the output of a FSUTMS model to vTIMAS and imports the raw model volumes. As part of this process, vTIMAS also applies volume smoothing calculations to the raw model volumes to determine the future-year annual average daily traffic to use for level of service analysis. Volume smoothing involves applying adjustments to raw future year volume forecasts based on the quality of the validation year model estimates compared to the actual counts reported in the field. This volume smoothing process significantly improves the reasonableness of forecasted traffic volumes used for the development of this plan.

The volume smoothing calculations are defined in National Cooperative Highway Research Program (NCHRP) Report #255, and are described in greater detail in Technical Appendix 4A.

Level of Service Analysis

The vTIMAS System was designed to accept inputs and perform generalized and conceptual level of service. The generalized level of service uses the Florida Department of Transportation Generalized Volume Tables to identify the level of service for a roadway segment and facility. The software also has the ability to run conceptual (Art-Plan) level of service analysis; however this type of analysis was not performed as a part of this long range transportation plan. For each the processes that vTIMAS performs, it generates reports that display the data inputs and results of the operation performed. This includes cost reports, level of service reports, volume smoothing reports, and other reports summarizing the data that was used in the vTIMAS system and the results provided from the system. The vTIMAS System can also export data to Microsoft Access, Dbase IV, or Comma-Separated Values to facilitate custom queries to be performed on the data and to allow the data to be used with other software packages.

ArcMap

ArcMap, a Geographic Information Systems software package, was used to create maps and to perform spatial calculations. These calculations include length of segments, area of Traffic Analysis Zones, and intersections of future land use, vacant land, water features, and approved developments to determine the developable land used in the socioeconomic data forecast.

Land Use Allocation Model

The Land Use Allocation Model is a tool developed by Tindale-Oliver & Associates to forecast the development of population and employment throughout a study area. This model uses Microsoft Excel to evaluate using allowable land use densities, land use multipliers, developable land, and activity centers to determine the amount and location of population and employment growth. This model allocates growth based on the gravity model, which calculates an attractiveness of a traffic analysis zone to an activity center based on the size of the activity center divided by the square of the distance from the activity center. The model allows for additions and overrides based on approved developments, proposed developments, or professional judgments and guidance provided by local agency staff.

The developable land is calculated using ArcMap Geographic Information System software and is input into the spreadsheet in future land use categories, which are based on the future land use plan that was used throughout the development of the socioeconomic data. The results of this process are discussed in Chapter 5 of this report.

Conclusion

This chapter begins with a discussion of the base conditions used in the Lake~Sumter Long Range Transportation Plan. This includes the 2000 and 2010 Existing + Committed Networks that were used as a base for modeling and for costing purposes. This chapter also discusses the various tools used through the development of the Plan. These tools include the Central Florida Regional Planning Model, Version 4, the Visual Transportation Inventory Management and Analysis System, ArcMap Geographic Information Systems software, and a Land Use Allocation Model developed in Microsoft Excel. These tools were used to develop, analyze, and display roadway network alternatives.

Chapter 5: Land Use and Socioeconomic Data Forecast

Introduction

This chapter summarizes the socioeconomic data forecast developed for the Long Range Transportation Plan. Lake County has previously used the procedures contained in this chapter to develop socioeconomic data to be used for travel demand forecasting. This chapter provides an overview of the socioeconomic data development methodology and results. Detailed information and results can be found in Technical Appendix Section 5B. Attention is directed to the fact that this chapter addresses forecast data prepared only for the Lake County portion of the Lake~Sumter MPO. Sumter County data is being prepared as part of a separate work effort by others.

Socioeconomic data, such as population and employment information, are an integral component of travel demand forecasting models used for transportation planning. The Lake~Sumter Metropolitan Planning Organization participates in the development and maintenance of this information within Lake County for the Central Florida Regional Planning Model, Version 4 (CFRPM-IV). This model is historically updated on a five-year cycle, thus requiring an update to the input data including base year and forecast socioeconomic data. This five-year update cycle is concurrent with the Long Range Transportation Plan update cycle.

SAFETEA-LU continued the TEA-21 requirements regarding the need to identify projected transportation demand of persons and goods in the metropolitan planning area over the period of the plan. Socioeconomic data, including population, hotel occupancy, school enrollment, and employment, was projected through Year 2025, as explained below.

Methodology

The socioeconomic data forecast is a multi-step process that can be generalized into four steps:

1. Development of control totals
2. Determination of developable lands
3. Input of approved developments, manual adjustments, and overrides
4. Allocation of growth to traffic analysis zones

These steps are discussed in greater detail below.

Development of Control Totals

Control Totals are countywide totals of population, dwelling units, and employment that are used to establish a theoretical level of development throughout the county in the forecast year. These control totals are developed by considering the historical growth rate of the county and the population projections forecasted by the University of Florida Bureau of Economic and Business Research (BEBR). The Bureau publishes three forecasts, a high, medium, and low growth projection for each county in Florida. These projections for Lake County are tabulated in Table 5-1.

Table 5-1: Bureau of Business and Economic Research Population Projections

	2000 Population	2005	2010	2015	2020	2025
BEBR Low		244,000	266,800	285,800	301,000	311,900
BEBR Medium	211,503	256,700	295,000	332,900	370,800	407,200
BEBR High		269,600	326,100	386,600	451,500	519,800

Through discussions with MPO Staff, Lake County Staff, and local government staff, it was determined that the optimal control total for population would be an average of the BEBR Medium and BEBR High population projection forecast. The employment control total maintained the existing mix of employment to population. Table 5-2 summarizes the control totals for population, and employment.

Table 5-2: Population and Employment Control Totals

Year	Population	Employees	Increase from 2000	
			Population	Employees
2000	211,503	87,318	N/A	N/A
2005	263,150	103,785	51,647	16,467
2010	326,550	129,279	115,047	41,961
2015	369,750	146,935	158,247	59,617
2020	411,150	164,004	199,647	76,686
2025	463,500	185,580	251,997	98,262

Determination of Developable Lands

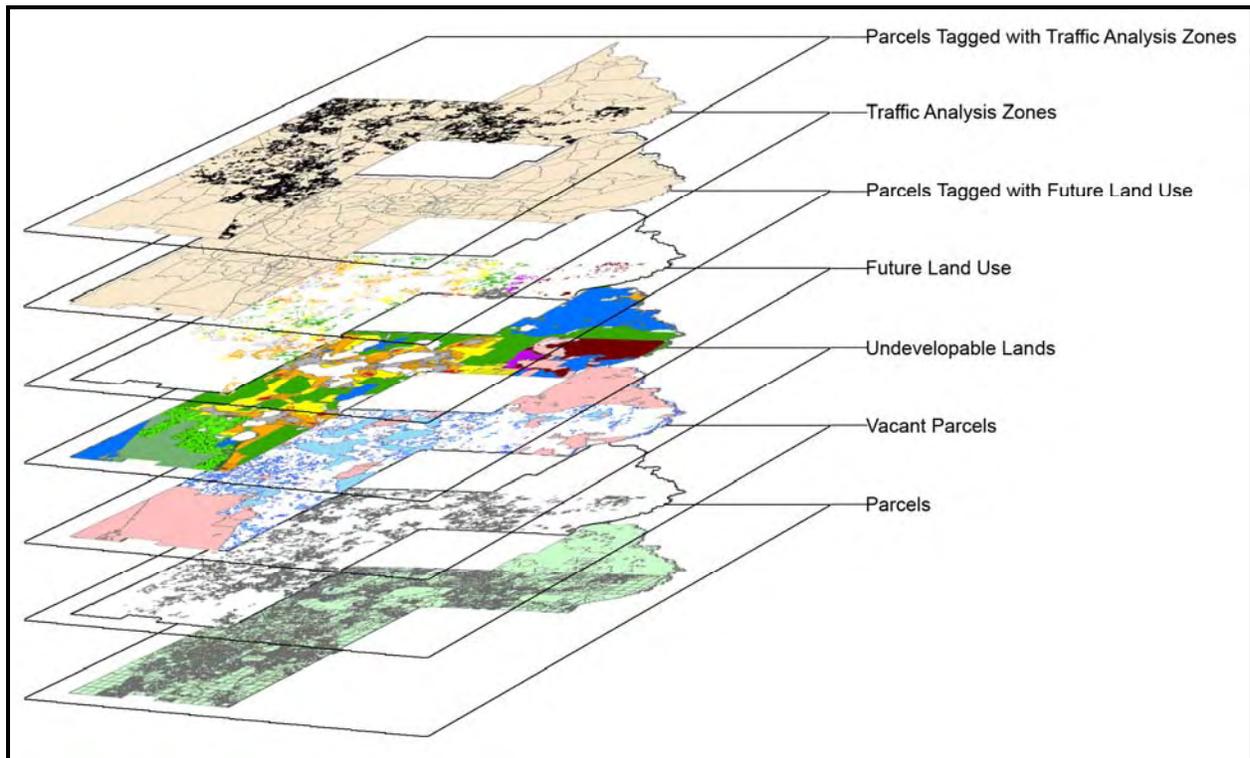
Developable Lands are determined through a geographic information systems process involving the following data sets:



- Vacant parcels from the year 2000
- The Future Land Use Plan from the Lake County Adopted Comprehensive Plan
- The traffic analysis zones used in the CFRPM-IV
- Locations of master planned unit developments and developments of regional impact
- Environmentally sensitive land, such as the Green Swamp, Wekiva Basin and the Ocala National Forest
- Lakes and rivers
- Other lands that are unable to be developed

This process begins with year 2000 parcel data because the population at the year 2000 is known through efforts from the US Census and reviewed by the Florida Department of Transportation for use in the model. The parcel data is queried based on the Florida Department of Revenue Use Code to determine the vacant lands. From these vacant lands, undevelopable lands are removed. Undevelopable lands include environmentally sensitive lands, lakes and rivers, and other undevelopable lands. Also, during this process, master planned unit developments and developments of regional impact are removed because they are going to be input separately into the land use allocation model. The remaining vacant parcels are tagged with their future land use category. Finally, these parcels are tagged with their traffic analysis zone (TAZ). The result of this is a table that can be queried for the amount of acreage for each future land use category for each TAZ. This process is graphically illustrated in Figure 5-1, below. The Future Land Use Map that was used in this process is included in Appendix 5A.

Figure 5-1: Determination of Developable Lands GIS Layers



Input of Approved Developments and Other Manual Inputs

Approved developments and other manual inputs are input into the future land use allocation model separately because the development amounts, locations, and timeframes are known. Manually inputting these items ensures that the allocation of development accurately reflects “facts on the ground.”

Allocation of Growth to Traffic Analysis Zones

The allocation of housing and employment growth to the individual zones is undertaken in a Microsoft Excel spreadsheet that models the growth based on the gravity model used to determine the propensity to grow based on the distance away from existing activity centers. The gravity model provides an attractiveness factor that is based on the size of the activity center divided by the square of the distance from the activity center. Each traffic analysis zone has the attractiveness factor calculated for it, and zones that have a higher attractiveness factor develop faster than those zones that have a lower factor.

Utilizing the developable lands by traffic analysis zone and future land use category, the allocation model projects the amount of population and dwelling unit growth in each traffic analysis zone.



Results of forecast

The results of the forecast are projections of population, employment, hotels, motels, schools, and other variables that are used as an input to the travel demand model. Detailed results can be found in Technical Appendix Section 5B, and the following maps are provided to summarize the base year and forecast socioeconomic data:

- Map 5-1 – Base Year 2000 Population
- Map 5-2 – Forecast 2025 Population
- Map 5-3 – Forecast 2000-2025 Population Growth
- Map 5-4 – Base Year 2000 Total Employment
- Map 5-5 – Forecast 2025 Total Employment
- Map 5-6 – Forecast 2000-2025 Total Employment Growth

Lake - Sumter MPO

2025 Long Range Transportation Plan

Socioeconomic Data Development
2000 Population

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

SUMTER

POLK

LEGEND

Number of Persons

- 0 - 300
- 301 - 800
- 801 - 1,500
- 1,501 - 2,500
- Greater than 2,501

0 5 10 Miles



Map 5-1

2000 Population



Lake - Sumter MPO

2025 Long Range Transportation Plan

Socioeconomic Data Development
2025 Population

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

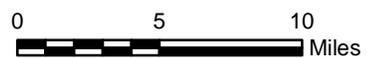
SUMTER

POLK

LEGEND

Number of Persons

- 0 - 300
- 301 - 800
- 801 - 1,500
- 1,501 - 2,500
- Greater than 2,501



Map 5-2

2025 Population



Lake - Sumter MPO

2025 Long Range Transportation Plan

Socioeconomic Data Development
2000 - 2025 Population Growth

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

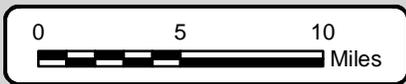
SUMTER

POLK

LEGEND

Number of Persons Added

- 0 - 100
- 101 - 250
- 251 - 500
- 501 - 1,500
- Greater than 1,501



Map 5-3

2000 - 2025 Population Growth

Lake - Sumter MPO

2025 Long Range Transportation Plan

Socioeconomic Data Development
2000 Total Employment

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

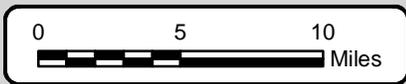
SUMTER

POLK

LEGEND

Total Employees

- 0 - 200
- 201 - 400
- 401 - 600
- 601 - 1,000
- Greater than 1,001



Map 5-4

2000 Total Employment



Lake - Sumter MPO

2025 Long Range Transportation Plan

Socioeconomic Data Development
2025 Total Employment

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

SUMTER

POLK

LEGEND

Total Employees

- 0 - 200
- 201 - 400
- 401 - 600
- 601 - 1,000
- Greater than 1,001



Map 5-5

2025 Total Employment

Lake - Sumter MPO

2025 Long Range Transportation Plan

Socioeconomic Data Development
2000 - 2025 Total Employment Growth

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

SUMTER

POLK

LEGEND

Total Employees Added

-  0
-  1 - 150
-  151 - 300
-  301 - 650
-  Greater than 651



Map 5-6

2000 - 2025 Total Employment Growth

Conclusion

The data sets developed as part of this project represent a cooperative effort between the Lake~Sumter Metropolitan Planning Organization, the Florida Department of Transportation, Lake County, and the local city governments in Lake County. Numerous review opportunities led to the development of the refined socioeconomic data. This socioeconomic data is an input to the Central Florida Regional Planning Model for the purposes of transportation planning. Application of this data for other uses should be carefully reviewed prior to actual use.

These data sets should also be reviewed periodically to ensure that ongoing growth is adequately provided for in the data files at the traffic analysis zone level. This is especially recommended for areas of the County that are experiencing significant changes in employment due to new development or redevelopment.

Recommendations for Enhancements

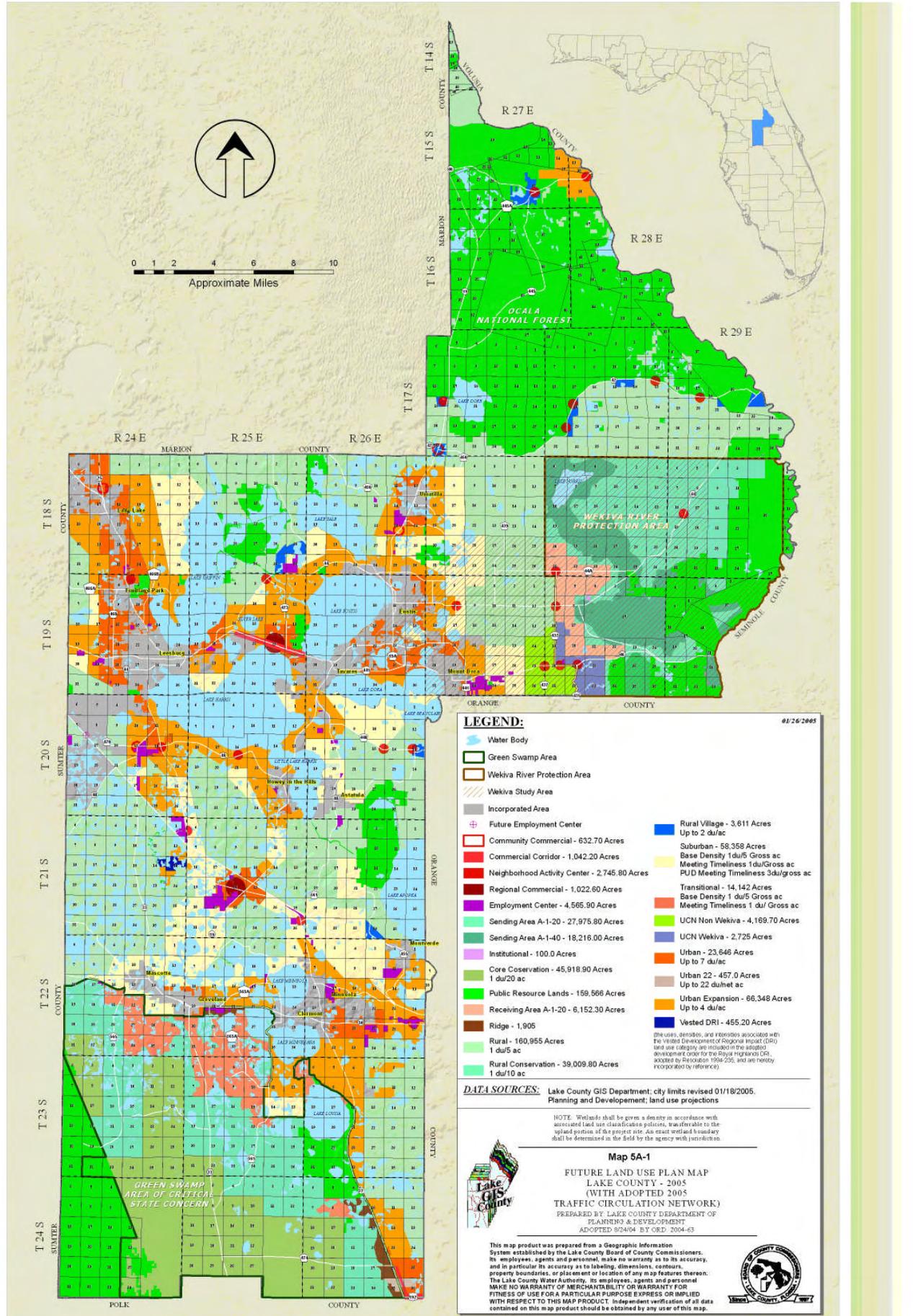
The methodology used to identify the locations of employment growth resulting from redevelopment was based on the analysis that could be completed within the scope of services using the best available data at the time the forecasts were developed. This necessitated the use of existing data and data that could be readily obtained. Overall, the recommended level of redevelopment was acceptable to the local government representatives who reviewed the data at the Traffic Analysis Zone unit of analysis. Only slight modifications were recommended as a result of these reviews. The opportunity exists for a more refined consideration of redevelopment growth in the future should the resources become available. This more refined analysis should attempt to identify redevelopment growth based on data at the parcel level. This parcel level data should include the existing quantity of employment at the parcel and the allowable growth based on the future land use identified for the parcel in the Comprehensive Plan. This revision to the methodology would more adequately reflect the variance of intensities of development from one location to another.



Chapter 5 Appendix

Appendix 5A: Future Land Use Map 5A-1

FUTURE LAND USE MAP LAKE COUNTY, FLORIDA



0 1 2 4 6 8 10
Approximate Miles

LEGEND:

- Water Body
- Green Swamp Area
- Wekiva River Protection Area
- Wekiva Study Area
- Incorporated Area
- Future Employment Center
- Community Commercial - 632.70 Acres
- Commercial Corridor - 1,042.20 Acres
- Neighborhood Activity Center - 2,745.80 Acres
- Regional Commercial - 1,022.80 Acres
- Employment Center - 4,665.90 Acres
- Sending Area A-1-20 - 27,975.80 Acres
- Sending Area A-1-40 - 18,216.00 Acres
- Institutional - 100.0 Acres
- Core Coservation - 45,918.90 Acres
- Public Resource Lands - 159,566 Acres
- Receiving Area A-1-20 - 6,152.30 Acres
- Ridge - 1,905
- Rural - 160,955 Acres
1 du/5 ac
- Rural - 39,009.80 Acres
1 du/10 ac
- Rural Village - 3,611 Acres
Up to 2 du/ac
- Suburban - 58,359 Acres
Base Density 1du/5 Gross ac
Meeting Timeliness 1du/Gross ac
PLUD Meeting Timeliness 3du/gross ac
- Transitional - 14,142 Acres
Base Density 1 du/5 Gross ac
Meeting Timeliness 1 du/ Gross ac
- UCN Non Wekiva - 4,169.70 Acres
- UCN Wekiva - 2,725 Acres
- Urban - 23,646 Acres
Up to 7 du/ac
- Urban 22 - 457.0 Acres
Up to 22 du/net ac
- Urban Expansion - 66,348 Acres
Up to 4 du/ac
- Vested DRI - 455.20 Acres
(the users, densities, and intensities associated with the Village Development of Regional Impact (VDRI) land use category are included in the adopted development order for the Royal Highways CD, adopted by Resolution 106-255, and are hereby incorporated by reference.)

01/26/2005

DATA SOURCES: Lake County GIS Department; city limits revised 01/18/2005. Planning and Development; land use projections

NOTE: Wetlands shall be given a density in accordance with associated land use classifications policies, as applicable to its accuracy, and in particular its accuracy as to labeling, dimensions, contours, property boundaries, or placement or location of any map features thereon. The Lake County Water Authority, its employees, agents and personnel MAKE NO WARRANTY OF MERCHANTABILITY OR WARRANTY FOR FITNESS OF USE FOR A PARTICULAR PURPOSE EXPRESS OR IMPLIED WITH RESPECT TO THIS MAP PRODUCT. Independent verification of all data contained on this map product should be obtained by any user of this map.



Map 5A-1
FUTURE LAND USE PLAN MAP
LAKE COUNTY - 2005
(WITH ADOPTED 2005
TRAFFIC CIRCULATION NETWORK)
PREPARED BY LAKE COUNTY DEPARTMENT OF
PLANNING & DEVELOPMENT
ADOPTED 8/24/04 BY ORD. 2004-63



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Chapter 6: Financial Resources

Introduction

This chapter presents the project cost estimates, revenue assumptions and projected revenues for the Lake~Sumter MPO 2025 Long Range Transportation Plan. The analysis reflects a multi-modal transportation system, including roadways, public transportation, bicycle facilities, sidewalks, multi-use trails, goods movement, and access to intermodal facilities.

Cost Assumptions and Multi-Modal Costs

This section summarizes the cost assumptions used in the development of the multi-modal Lake~Sumter MPO 2025 Long Range Transportation Plan (LRTP). Following the assumptions for each mode, the estimated costs for the MPO adopted 2025 Needs Plan are presented. All costs are estimated in current year dollars (year 2004).

Roadway Costs

Project Development and Environmental (PD&E), Preliminary Engineering (PE), and Construction Engineering and Inspection (CEI) - According to the FDOT publication *2004 Transportation Costs*, engineering costs include PD&E, PE, CEI, material testing and research, and related overhead costs. The average ratio of engineering to construction costs is estimated to be 46 percent. These cost components are reported as a total percentage and are not broken down into further detail by component. This ratio (percent of construction cost) is used for projecting the engineering costs associated with capital roadway improvements for the state highway system. It is noted, however, that state revenues used to pay for design costs for state projects are funded from a different state revenue source than the revenue source used for capacity projects. Since these revenue projections were not provided as part of the state revenue projections for the LRTP, state design costs are excluded from the cost estimates for state projects included in the LRTP.

Discussions with Lake County Public Works Officials indicate that the costs for these same items for county road system projects are in the range of 17 percent of the road construction cost. Therefore, this percentage was used in the development of project cost estimates for County and local projects.

Right-of-Way Acquisition (ROW) – The ROW cost for improvements was calculated based on discussions with the Lake County Public Works Department. Based on this, ROW costs were calculated at an average of 20% of the construction costs for both State Roads and County Roads.



Construction (CST) - The source for highway construction costs is the FDOT Long Range Estimate System. The FDOT Estimates Office maintains the average bid-price of items included in FDOT construction contracts. Unit construction costs for urban road improvements are provided in Table 6-1. Unit construction costs for rural road improvements are provided in Table 6-2. These costs were used when there was no other source for the costs. When a more refined cost estimate was available, such as from the Strategic Intermodal System Plan, a Corridor Study, a PD&E Study, a PE Study, a Final Design, or a Construction Bid Estimate, it was used.

County construction cost estimates were supplied by the Lake County Public Works Department, and modified based on professional judgment, as appropriate, to address unique project characteristics, such as wetlands and habitat mitigation, need for bridges, and other unique circumstances. Additionally, construction costs include amenities, such as sidewalks, bicycle lanes, and minor landscaping. The County construction cost assumptions are provided in Table 6-3 for urban roadways, and Table 6-4 for rural roadways.

Bridge construction cost estimates were supplied by the FDOT Long Range Estimate System. These costs are presented in Table 6-5.



Table 6-1

State Urban Roadway Improvement Unit Costs, in millions of dollars per centerline mile (2004)

Improvement to ->		Two-Lane One-Way	Two-Lane Undivided	Two-Lane Divided	Three-Lane One-Way	Four-Lane One-Way	Four-Lane Undivided	Four-Lane Divided	Four-Lane Freeway	Six-Lane Divided	Six-Lane Freeway	Eight-Lane Freeway
Improvement From	None	\$2,830,000	\$2,830,000	\$3,450,000	\$3,450,000	\$4,188,000	\$4,188,000	\$5,338,000	\$5,961,000	\$6,163,000	\$7,249,000	\$8,636,000
	Two-Lane One-Way				\$1,725,000	\$3,087,000		\$3,087,000				
	Two-Lane Undivided	\$696,000	\$0	\$1,725,000	\$1,725,000		\$3,087,000	\$3,087,000	\$6,951,000	\$6,951,000	\$8,240,000	
	Two-Lane Divided			\$0	\$1,725,000		\$3,087,000	\$3,087,000	\$7,168,000	\$7,370,000		
	Three-Lane One-Way				\$0	\$1,725,000		\$3,087,000				
	Four-Lane One-Way					\$0		\$2,070,000				
	Four-Lane Undivided				\$842,000		\$0	\$2,070,000				
	Four-Lane Divided							\$0		\$3,490,000	\$9,117,000	
	Four-Lane Freeway								\$0		\$4,003,000	\$5,292,000
	Six-Lane Freeway										\$4,880,000	

Source: FDOT, "2004 Transportation Costs"

- Notes:
- (1) A blank cell indicates that a roadway improvement is not applicable.
 - (2) Figures are for 2004 construction costs for one centerline mile of roadway including structures up to 20 feet in length
 - (3) These figures exclude costs for interchanges/structures over 20 feet, right-of-way, preliminary engineering, and construction engineering inspection.
 - (4) The cost per centerline mile figures are based on general, statewide averages.



Table 6-2

State Rural Roadway Improvement Unit Costs, in millions of dollars per centerline mile (2004)

Improvement to ->		Two-Lane Undivided	Four-Lane Divided	Four-Lane Freeway	Six-Lane Divided	Six-Lane Freeway	Eight-Lane Freeway
Improvement From	None	\$2,636,000	\$4,094,000	\$5,346,000	\$4,609,000	\$6,772,000	\$7,678,000
	Two-Lane Undivided	\$0	\$2,544,000	\$6,269,000	\$5,440,000		
	Four-Lane Undivided			\$6,735,000	\$2,544,000	\$8,353,000	
	Four-Lane Divided		\$0	\$6,779,000	\$2,874,000	\$8,385,000	
	Four-Lane Freeway			\$0		\$3,999,000	\$5,425,000
	Six-Lane Freeway					\$0	\$4,415,000

Source: FDOT, "2004 Transportation Costs."

- Notes:
- (1) A blank cell indicates that a roadway improvement is not applicable.
 - (2) Figures are for 2004 construction costs for one centerline mile of roadway including structures up to 20 feet in length
 - (3) These figures exclude costs for interchanges/structures over 20 feet, right-of-way, preliminary engineering, and construction engineering inspection.
 - (4) The cost per centerline mile figures are based on general, statewide averages.



Table 6-3

County Urban Roadway Improvement Unit Costs, in millions of dollars per centerline mile (2004)

Improvement to ->		Two-Lane One-Way	Two-Lane Undivided	Two-Lane Divided	Three-Lane One-Way	Four-Lane One-Way	Four-Lane Undivided	Four-Lane Divided	Four-Lane Freeway	Six-Lane Divided	Six-Lane Freeway
Improvement From	None	\$950,000	\$950,000	\$950,000	\$2,235,000	\$2,000,000	\$2,000,000	\$2,000,000		\$5,425,000	
	Two-Lane One-Way	\$0			\$775,000	\$2,000,000	\$2,000,000	\$2,000,000		\$3,875,000	
	Two-Lane Undivided		\$0	\$775,000	\$775,000	\$2,000,000	\$2,000,000	\$2,000,000		\$3,875,000	
	Two-Lane Divided			\$0		\$775,000	\$775,000	\$1,550,000		\$3,100,000	
	Three-Lane One-Way				\$0	\$775,000	\$775,000	\$1,550,000		\$3,100,000	
	Four-Lane One-Way					\$0		\$775,000			
	Four-Lane Undivided						\$0	\$775,000		\$2,325,000	
	Four-Lane Divided							\$0		\$1,550,000	
	Four-Lane Freeway								\$0		\$1,908,000

- Notes:
- (1) A blank cell indicates that a roadway improvement is not applicable.
 - (2) Figures are for 2004 construction costs for one centerline mile of roadway including structures up to 20 feet in length
 - (3) These figures exclude costs for interchanges/structures over 20 feet, right-of-way, preliminary engineering, and construction engineering inspection.
 - (4) The cost per centerline mile figures are from the Lake County Public Works Department.



Table 6-4

County Rural Roadway Improvement Unit Costs, in millions of dollars per centerline mile (2004)

Improvement to ->		Two-Lane One-Way	Two-Lane Undivided	Two-Lane Divided	Three-Lane One-Way	Four-Lane One-Way	Four-Lane Undivided	Four-Lane Divided	Four-Lane Freeway	Six-Lane Divided	Six-Lane Freeway
Improvement From	None	\$950,000	\$950,000	\$950,000	\$2,235,000	\$2,000,000	\$2,000,000	\$2,000,000		\$5,425,000	
	Two-Lane One-Way	\$0			\$775,000	\$2,000,000	\$2,000,000	\$2,000,000		\$3,875,000	
	Two-Lane Undivided		\$0	\$775,000	\$775,000	\$2,000,000	\$2,000,000	\$2,000,000		\$3,875,000	
	Two-Lane Divided			\$0		\$775,000	\$775,000	\$1,550,000		\$3,100,000	
	Three-Lane One-Way				\$0	\$775,000	\$775,000	\$1,550,000		\$3,100,000	
	Four-Lane One-Way					\$0		\$775,000			
	Four-Lane Undivided						\$0	\$775,000		\$2,325,000	
	Four-Lane Divided							\$0		\$1,550,000	
Four-Lane Freeway								\$0		\$1,908,000	

- Notes:
- (1) A blank cell indicates that a roadway improvement is not applicable.
 - (2) Figures are for 2004 construction costs for one centerline mile of roadway including structures up to 20 feet in length
 - (3) These figures exclude costs for interchanges/structures over 20 feet, right-of-way, preliminary engineering, and construction engineering inspection.
 - (4) The cost per centerline mile figures are from the Lake County Public Works Department.

Table 6-5: Bridge Construction Costs (2004\$)

Bridge Type		Low Cost per Square Foot	High Cost per Square Foot
Short Span	Reinforced Concrete Simple Span	\$70	\$90
	Pre-Cast Concrete Simple Span	\$115	\$168
Medium Span	Concrete Deck/Steel Girder Simple Span	\$85	\$110
	Concrete Deck/Steel Girder Continuous Span	\$95	\$160
	Concrete Deck/Pre-Stressed Girder Simple Span	\$70	\$110
	Concrete Deck/Pre-Stressed Girder Continuous Span	\$85	\$125
Long Span	Concrete Deck/Steel Box Girder (span 150-280 feet)	\$115	\$165
	Segmental Concrete Box Girders – Cantilever (span 150-280 feet)	\$95	\$140
	Movable Bridge – Bascule Spans and Piers	\$800	\$1,400
Demolition	Typical	\$15	\$25
	Bascule	\$65	\$65
	Bridge Widening	\$85	\$110

Notes: (1) Source: FDOT "2004 Transportation Costs"

(2) All costs in 2004 dollars

Needs Plan Roadway Capital Costs - Using the cost assumptions presented above for PD&E, PE, CEI, ROW, and CST, the cost of the Adopted 2025 Needs Plan was developed. Table 6-6 summarizes the costs of the Adopted Needs Plan. Detailed information on the costs of the Adopted Needs Plan can be found in Chapter 7. The total projected cost of the Adopted 2025 Needs Plan is \$1.2 billion. This is broken out as follows: \$70 million for all design and inspection activities, \$193.2 million for right of way acquisition costs, \$974 million for construction costs, and \$20.0 million in unique costs (interchanges, bridges, major utility relocation, etc.).

Table 6-6
Cost of the Adopted 2025 Needs Plan
(Costs in 2004 dollars for the period 2011 to 2025)

	Design Costs	ROW Costs	Construction Costs	Unique Costs	Total Costs
SIS (FIHS-Interstate)	\$0	\$5,057,523	\$25,287,616	\$20,000,000	\$50,345,139
SIS (FIHS-intrastate)	\$0	\$47,945,816	\$118,330,082	\$0	\$166,275,898
Other State Roads	\$0	\$55,543,956	\$320,184,978	\$0	\$375,728,934
County Roads	\$69,927,344	\$84,609,905	\$510,188,104	\$0	\$594,798,009
Other Roads	\$0	\$0	\$0	\$0	\$0
TOTALS	\$69,927,344	\$193,157,200	\$973,990,780	\$45,000,000	\$1,187,147,980

- Notes:
- (1) Unique costs for SIS (FIHS-Interstate) are for the Interchange at Florida's Turnpike and Sullivan Rd. SIS (FIHS-Interstate) costs source is FDOT FIHS System Plan, 2003 Update
 - (2) Unique Costs for County Roads include bridges, and utility pipelines along reconstructed roadways or bridges. Source: Lake County Public Works

Cost Affordable Plan Roadway Capital Costs – Based on the cost assumptions presented above for PD&E, PE, CEI, ROW, and CST, the cost of the Adopted 2025 Cost Affordable Plan was developed. Table 6-7 summarizes the costs of the Adopted Cost Affordable Plan. Detailed information on the costs of the Adopted Cost Affordable Plan can be found in Chapter 8. The total projected cost of the Approved 2025 Cost Affordable Plan is \$591.3 million. This is broken out as follows: \$47.9 million for all design and inspection activities, \$115.4 million for right of way acquisition costs, \$455.9 million for construction costs, and \$20 million in unique costs (interchanges, bridges, major utility relocation, etc.).

Table 6-7

Cost of the Adopted 2025 Cost Affordable Plan

(Costs in 2004 dollars for the period 2011 to 2025)

	Design Costs	ROW Costs	Construction Costs	Unique Costs	Total Costs
SIS (FIHS-Interstate)	\$0	\$5,057,523	\$25,287,616	\$20,000,000	\$50,345,139
SIS (FIHS-Non-Interstate)	\$0	\$33,358,301	\$45,392,506	\$0	\$78,750,807
Other State Roads	\$0	\$18,527,343	\$119,001,674	\$0	\$137,529,017
County Roads	\$47,895,547	\$58,454,236	\$266,169,977	\$0	\$324,624,213
Other Roads	\$0	\$0	\$0	\$0	\$0
TOTALS	\$47,895,547	\$115,397,403	\$455,851,773	\$20,000,000	\$591,249,176

Notes: (1) Unique costs for SIS (FIHS-Interstate) are for the Interchange at Florida's Turnpike and Sullivan Rd. SIS (FIHS-Interstate) costs source is FDOT FIHS System Plan, 2003 Update

(2) Unique Costs for County Roads include bridges, and utility pipelines along reconstructed roadways or bridges. Source: Lake County Public Works



Operating and Maintenance (O&M) Costs and Life Cycle Costs (LCC) - State roadway maintenance unit costs are summarized in Table 6-8. Table 6-9 provides additional unit cost data for bridge preservation, and Table 6-10 provides costs of new traffic signals and traffic signal maintenance. Appendix 6A contains the 2025 Forecast of State and Federal Revenues for Statewide and Metropolitan plans. Within Appendix 6A there is documentation on Non-Capacity Programs, including resurfacing, operations and maintenance, among others. This documentation includes statewide objectives for these programs and tables describing these programs and the projected revenues available to support these programs.

Table 6-8

State Roadway Maintenance Unit Costs (2004)

	Maintenance Category	Cost Per Centerline Mile
State Rural Roads	2 Lanes	
	Milling & Resurfacing with 5' Paved Shoulders	\$515,500
	Routine Maintenance (Annual)	\$22,400
	4 Lanes	
	Milling & Resurfacing (Arterial) with 5' Paved Shoulders with 12' Auxiliary Lanes	\$875,600
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	\$848,400
	Routine Maintenance (Annual)	\$42,000
	6 Lanes	
	Milling & Resurfacing (Arterial) with 5' Paved Shoulders with 12' Auxiliary Lanes	\$964,200
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	\$1,193,500
	Routine Maintenance (Annual)	\$62,600
	8 Lanes	
	Milling & Resurfacing (Arterial) with 5' Paved Shoulders with 12' Auxiliary Lanes	\$1,307,600
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	\$1,324,100
Routine Maintenance (Annual)	N/A	
State Urban Roads	2 Lanes	
	Milling & Resurfacing, Curb to Curb	\$476,600
	Routine Maintenance (Annual)	\$27,000
	4 Lanes	
	Milling & Resurfacing (Arterial) Curb to Curb with 12' Auxiliary Lanes	\$622,300
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	\$861,900
	Routine Maintenance (Annual)	\$60,300
	6 Lanes	
	Milling & Resurfacing (Arterial) Curb to Curb with 12' Auxiliary Lanes	\$855,800
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	\$1,301,200
	Routine Maintenance (Annual)	\$118,500
	8 Lanes	
	Milling & Resurfacing (Arterial) Curb to Curb with 12' Auxiliary Lanes	\$1,651,900
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	\$1,315,100
Routine Maintenance (Annual)	\$133,300	

Source: FDOT, 2004 Transportation Costs

Table 6-9

FDOT Bridge Maintenance Costs (2004)

Bridge Preservation (Cost per Square Foot)		
Cost Category	Low	High
Maintenance (Annual - Fixed Bridge)	\$0.01	\$0.04
Maintenance (Annual - Moveable Bridge)	\$2.55	\$3.06

Source: FDOT, 2004 Transportation Costs

Table 6-10

FDOT Traffic Signal Costs (2004)

Installation	Rural	Urban	Average
Mast Arm	\$137,500	\$175,000	\$156,250
Strain Pole	\$67,500	\$82,500	\$75,000
Maintenance (excluding power) ⁽¹⁾			\$3,750

(1) Per Intersection Per Year

Source: FDOT, 2004 Transportation Costs

Public Transportation Costs

A financial plan was prepared to document the projected costs associated with the Transit in the cost affordable plan. The financial plan assumes that the 2006-2010 Transit Development Plan (TDP) will be implemented as adopted, other transit improvements will be implemented gradually from 2011 to 2025, and service will be maintained from 2011 to 2025. All costs and revenues are reflected in 2004 dollars.

Operating Characteristics and Costs for Existing and New Service - Table 6-12 presents the operating characteristics and costs associated with existing bus service, as well as future enhancements to fixed-route bus service. The table also reflects the year in which each service will be implemented. For the purpose of projecting costs and revenues, it is assumed that service enhancements to be implemented after the initial five years will be implemented gradually from 2011 to 2025. The implementation timing of these longer term enhancements will be determined by future updates of the TDP.

Table 6-11

Lake County Transit Operating Costs

(2004 dollars)

Existing Service/Service Enhancement	Total Operating Cost (2011-25) (x1,000)
Continue existing paratransit service	\$35,786
Fixed-Route Services	\$19,562
Marketing and Maps & Schedules	\$380
Total	\$55,727

Table 6-11 identifies the total operating costs for existing and new services from year 2011 through 2025. All costs in this table are reflected in 2004 dollars. As indicated in the table, the total operating cost from 2011 to 2025 is projected at \$55.7 million.

Capital Needs and Costs for Existing and New Service - Table 6-12 summarizes the capital costs associated with the transit portion of the LRTP. Capital acquisitions include vehicles, bus stop signs, benches, shelters, and other miscellaneous capital equipment. The vehicle category reflects a vehicle replacement and expansion plan that will result in the purchase of 9 buses and 150 vans, including replacement busses and vans as well as vehicles needed for service enhancements. The busses purchased throughout the 2011 to 2025 time period will be equipped with an information display unit. The capital plan includes the provision to implement a shelter, signage, and/or bench program as necessary. The resulting total capital costs from 2011 through 2025 are \$4.7 million (in 2004 dollars).



Summary of Operating and Capital Costs for 2011 to 2025 - Table 6-13 presents the annual operating and capital costs from 2011 through the year 2025. The projected costs were determined based on the assumption that expansion will occur gradually from 2011 to 2015 and that the service provided in 2015 will continue at the same level through 2025. The specific timing for implementing transit improvements will be determined as part of each update of the five-year TDP.



Table 6-12

Lake County Transit Capital Costs (2011-2025), (costs in 2004 dollars)

Year	Fixed-Route Vehicles	Paratransit Vehicles	Shelters (1)	Benches (1)	Signs (1)	Total Capital Costs
2011	\$0	\$292,664	N/A	N/A	N/A	\$292,664
2012	\$0	\$295,041	N/A	N/A	N/A	\$295,041
2013	\$0	\$297,437	N/A	N/A	N/A	\$297,437
2014	\$0	\$299,853	N/A	N/A	N/A	\$299,853
2015	\$0	\$302,288	N/A	N/A	N/A	\$302,288
2016	\$0	\$304,743	N/A	N/A	N/A	\$304,743
2017	\$0	\$307,217	N/A	N/A	N/A	\$307,217
2018	\$0	\$309,712	N/A	N/A	N/A	\$309,712
2019	\$0	\$312,228	N/A	N/A	N/A	\$312,228
2020	\$0	\$314,763	N/A	N/A	N/A	\$314,763
2021	\$0	\$317,319	N/A	N/A	N/A	\$317,319
2022	\$0	\$319,896	N/A	N/A	N/A	\$319,896
2023	\$0	\$322,494	N/A	N/A	N/A	\$322,494
2024	\$0	\$325,113	N/A	N/A	N/A	\$325,113
2025	\$0	\$327,753	N/A	N/A	N/A	\$327,753
TOTAL 2011-2025	\$0	\$4,648,521	N/A	N/A	N/A	\$4,648,521

Table 6-13

Lake County Transit Summary of Operating and Capital Costs (in 2004 dollars),

Year	Operating Cost	Capital Cost	Total Cost
2011	\$4,208,997	\$292,664	\$4,501,661
2012	\$4,130,012	\$295,041	\$4,425,053
2013	\$4,053,138	\$297,437	\$4,350,575
2014	\$3,978,313	\$299,853	\$4,278,166
2015	\$3,905,484	\$302,288	\$4,207,772
2016	\$3,834,597	\$304,743	\$4,139,339
2017	\$3,765,598	\$307,217	\$4,072,815
2018	\$3,698,438	\$309,712	\$4,008,150
2019	\$3,633,065	\$312,228	\$3,945,292
2020	\$3,569,432	\$314,763	\$3,884,195
2021	\$3,507,491	\$317,319	\$3,824,810
2022	\$3,447,197	\$319,896	\$3,767,093
2023	\$3,388,505	\$322,494	\$3,710,999
2024	\$3,331,372	\$325,113	\$3,656,485
2025	\$3,275,756	\$327,753	\$3,603,509
Total	\$55,727,394	\$4,648,521	\$60,375,916

Bicycle/Pedestrian Costs

Unit costs for bicycle and pedestrian facilities are also provided in the FDOT transportation cost report previously referenced. These unit costs are provided in Table 6-14.

The 2025 Bicycle and Pedestrian Cost Affordable Plan comprise bicycle and pedestrian projects that are constructed concurrently with road projects and a Rail-to-Trail conversion for one trail. The cost of sidewalk and bicycle facility projects constructed concurrently with road projects is included within the cost of the respective road project. Additionally, the 2025 Cost Affordable Plan includes \$10 million of funding, primarily used to fund the Rail-to-Trail conversion, but also to provide support to Rail-to-Trail conversion and other bicycle and pedestrian facilities as approved by the MPO Board.

Table 6-14

Unit Costs for Bicycle and Pedestrian Facilities (2004)

Bicycle Facilities	Unit Cost
Bike Path Per Mile (12' Width), R & R Conversion	\$515,500
Bike Lane Per Mile (5' Width, 2 sides), Pavement Extension	\$634,900
Bike Lane Per Mile (4' Width, 2 Sides) when widening road, Urban	\$205,508
Bike Lockers (for 2 bicycles)	\$3,800
Pedestrian Facilities	Unit Cost
Sidewalks Per Mile (4 inch depth)	
5' Width, 1 side	\$181,000
6' Width, 1 side	\$217,000
Brickpavers (per square yard)	
Roadway	\$70
Sidewalk	\$44
"Walk/Don't Walk" Signal System	
Signalhead, LED, 1 Direction (each)	\$520
Signalhead, LED, 2 Directions	\$975
Signalhead, Incandescent (Each)	\$381
Activator (each)	\$130
Two Corners, Signalhead, LED – 2 Directions	\$1,950
Four Corners, Signalhead, LED – 2 Directions	\$3,900
Raised Island/Refuge Island	
Type "D" Curb (per linear foot)	\$19
4-Inch Sidewalk Fill (per square yard)	\$19
Handicap Curb Ramp (concurrent with construction)	\$0

Source: FDOT, 2004 Transportation Costs



Development of Revenue Projections

Revenue estimates were prepared to determine the amount of transportation funding reasonably expected to be available through 2025, the time horizon for the Long Range Transportation Plan. These revenue estimates were developed through coordination with the Lake~Sumter MPO, The Lake County Public Works Department, the Lake County Office of Management and Budget, and the Florida Department of Transportation District 5. The revenue projections include the period from 2011 to 2025. Below is a summary of the process of developing the revenue projections for the 2025 Long Range Transportation Plan.

State Projections Capital

State revenue estimates were developed based on the information provided by the FDOT District 5. Lake County revenue estimates were provided for the following categories:

- SIS
- Aviation
- Intermodal Access
- Other Arterial
- Transportation Enhancement
- Transit

No Seaport Development Revenues or Congestion Mitigation Air Quality (CMAQ) revenues are available for Lake or Sumter Counties. In general, the allocation of FDOT revenues is based on statutory formula and/or population, as appropriate. State revenue estimates were developed based on FDOT direction to use prior LRTP projections inflated to 2004 dollars and adjusted by policy plan direction for SIS funding that shifts Other Arterial Revenues to the SIS over time.

State Projections for Maintenance

Maintenance programs associated with the State Highway System are documented in Appendix 6A, as provided by the FDOT.



Local Projections for Capital

County revenue projections were developed through a series of discussions with the Lake County Office of Management and Budget. Currently, the County has three primary revenue sources that are used to fund capital capacity expansion projects. These revenue sources are the First Local Option Gas Tax, the Lake County Sales Tax and Lake County Transportation Impact Fees.

Local Projections for Maintenance

Long term maintenance projections were developed with assistance from the Lake County Office of Management and Budget and the Lake County Public Works Department. Three primary sources of revenue are used to fund county maintenance of the functionally classified system. These are the Constitutional Gas Tax, the County Gas Tax, and Ad Valorem Tax revenues. Appendix 6C provides maintenance revenue projections by year for the period 2011 to 2025. The total of these revenue sources, deflated to year 2004 dollars, is \$200.8 million.

Projected Revenues

Base Revenues

Base federal and state capital revenues total \$255.1 million from 2011 to 2025. This includes Strategic Intermodal System facilities (\$186.8 million), State Roads (\$55.3 million), public transportation (\$4.5 million) and bicycle and pedestrian enhancement funds (\$8.5 million). Existing County funding sources consist of the First Local Option Gas Tax (LOGT) (\$27.6 million), transportation impact fees (\$157 million) and local option sales tax (LOST) (\$26.5 million). Total County funding from these sources is \$199.7 million. Of county gas tax revenues, \$11.6 million is allocated to public transportation to fund the public transportation shortfall (\$0.3 million for capital and \$11.3 million for operations and maintenance). An additional \$10 million in Bike/Pedestrian Revenues are included from Sales Tax. Appendices 6A and Appendix 6B provide maintenance revenue projections for state and county roads, respectively.



Enhanced Revenues

Because existing revenue sources would not fund all needed multi-modal improvements for the 2025 transportation system, several revenue enhancements were considered in developing the 2025 Cost Affordable plan. These sources include:

- Lake County Transportation Impact Fees were assumed to be increased by 25 percent every five years starting in 2010, generating \$200 million
- The Lake County Local Option Sales Tax was assumed to be extended from 2017 to 2025, generating \$40.7 million

Enhanced county revenues from these three sources total \$240.6 million. Additionally, consideration was given to adopt the Second Local Option Gas Tax, but the MPO Board rejected this funding option, and voted to increase impact fees to improve funding in lieu of enacting the Second Local Option Gas Tax. These sources and amounts of revenue generated were reviewed and prioritized by the public at several public workshops and a transportation discussion group. Additionally, both the MPO Citizens Advisory and Technical Advisory Committees recommended approval of these funding sources and amounts, including the Second Local Option Gas Tax. The MPO Board approved these funding sources with the understanding that if other revenue options become available at the federal, state, and/or local level, the revenue assumptions and amounts presented in this 2025 LRTP could be updated and amended.

Base and Enhanced Revenues

The total base and enhanced revenues for funding the 2025 Cost Affordable Plan are \$710.6 million. This includes the \$242.8 million in additional county funding as discussed above.

Figure 6-1 presents a summary of the revenue sources, assumptions and projections from 2011 to 2025. This table includes revenue projections for Federal, State, County, and other sources that are reasonably expected to be available to fund the 2025 Cost Feasible Plan.



Figure 6-1 also presents the transit capital and operating revenue sources, assumptions and projections to fund the transit in the Cost Affordable Plan. Total base revenues include \$34.1 million in Federal Section 5307 funds, with \$8.8 million for Operating and \$4.4 million for capital, \$4.2 million in FDOT Block Grants, \$31.5 million in other grants, and 0.3 million from Farebox Revenues. In addition, the 2025 transit revenues include \$11.6 million in local funding for transit from 2011 to 2025. This funding level is consistent with the current annual level reflected in the TDP. All funding amounts are presented in 2004 dollars. The local contribution is necessary to match the state and federal funding needed to implement the transit improvements included in the cost affordable plan.

In addition, Figure 6-1 presents the revenue sources, assumptions and projections for bicycle and pedestrian facilities in 2025 Cost Affordable Plan. There are two sources of revenues available to fund stand alone bicycle and pedestrian projects. These include:

- TEA-21 Enhancement funds of approximately \$8.5 million for the period from 2011 to 2025
- Lake County Sales Tax of \$1.4 million for the Sales Tax from 2011 to 2017
- Lake County Sales Tax of \$2.1 million for the Sales Tax from 2017 to 2025
- Lake County Sales Tax of \$10 million additional directed to bicycle and pedestrian projects

Figure 6-2 illustrates graphically the base, enhanced and total capital funding of the 2025 LRTP Cost Affordable Plan. Base revenues total \$456.6 million, enhanced revenues total \$242.8 million and total revenues are equal to \$699.4 million.

SAFETEA-LU requires a financial plan that includes all public and private resources. Base State and Federal revenue sources include Strategic Intermodal System, State Road, public transportation and bicycle and pedestrian enhancement funds. Base County funding sources consist of the First Local Option Gas Tax, transportation impact fees and the local option sales tax. As stated above, the Lake-Sumter MPO Board approved an enhanced revenue forecast that includes an extension of the current sales tax beyond its expiration in 2017, and a significant increase in transportation impact fees. The MPO Board elected not to include the second local option gas tax as an enhanced revenue source. The MPO Board approved these funding sources with the understanding that if other revenue options become available at the federal, state, and/or local level, the revenue assumptions and amounts presented in this 2025 LRTP could be updated and amended. This is all detailed in the text and tables in this chapter. As seen in Chapter 8, the Cost Affordable Plan does include some projects that are funded through alternative means, be it public or private. They are explained in that Chapter.



Figure 6-1

Lake~Sumter MPO 2025 Long Range Transportation Plan Revenue Projections (2011-2025) (All Revenues x 1,000)

<p>1. All revenues deflated to 2004 dollars at an annual rate of 4 percent.</p> <p>Assumptions: Revenues are deflated to account for future increases in construction cost. This allows all construction cost estimates to be based on 2004 dollars.</p>							
<p>2. State Intermodal System (SIS) Revenues</p> <table border="0"> <tr> <td>Total Base Revenue Available</td> <td>\$186,827</td> </tr> <tr> <td>Additional Revenue Option</td> <td>-\$186,827</td> </tr> <tr> <td>Total Base and Enhanced Revenue</td> <td>\$0</td> </tr> </table> <p>Assumptions: Revenues assumed to balance costs.</p>		Total Base Revenue Available	\$186,827	Additional Revenue Option	-\$186,827	Total Base and Enhanced Revenue	\$0
Total Base Revenue Available	\$186,827						
Additional Revenue Option	-\$186,827						
Total Base and Enhanced Revenue	\$0						
<p>3. State Roadway Revenues</p> <table border="0"> <tr> <td>Total Base Revenue Available</td> <td>\$55,297</td> </tr> <tr> <td>Additional Revenue Option</td> <td>\$0</td> </tr> <tr> <td>Total Base and Enhanced Revenue</td> <td>\$55,297</td> </tr> </table> <p>Assumptions: Includes travel choices-other arterial construction and right-of-way Includes 25 percent of State Revenues for Sumter County, based on population distribution Incorporated FDOT adjustment to 2000 Revenue Forecast from MPO</p>		Total Base Revenue Available	\$55,297	Additional Revenue Option	\$0	Total Base and Enhanced Revenue	\$55,297
Total Base Revenue Available	\$55,297						
Additional Revenue Option	\$0						
Total Base and Enhanced Revenue	\$55,297						



Figure 6-1

Lake~Sumter MPO 2025 Long Range Transportation Plan Revenue Projections (2011-2025) (All Revenues x 1,000)

4. County Roadway Revenues					
4A. Transportation Impact Fee Revenues					
	Total Base Revenue Available	\$157,106			
	Additional Revenue Option	\$199,917			
	Total Base and Enhanced Revenue	\$357,023			
	Enhanced Revenue Assumptions:				
	Revenues based on the average annual impact fee collections for the last three fiscal years.				
	Impact fee rate increases and resulting single-family residential impact fee assumed to be the following:				
	By 2010 - Increase of 25 percent. All land uses will be increased; resulting single family fee is \$3,284.				
	By 2015 - Increase of 25 percent. All land uses will be increased; resulting single family fee is \$4,014.				
	By 2020 - Increase of 25 percent. All land uses will be increased; resulting single family fee is \$5,130.				
4B. 1st Local Option Gas Tax Revenues					
	Total Base Revenue Available	\$27,576			
	Additional Revenue Option	\$0			
	Total Base and Enhanced Revenue	\$27,576			
	Assumptions:				
	The Constitutional Gas Tax and Ninth-Cent Gas Tax revenues are only used for roadway maintenance projects and operations within the Lake~Sumter MPO; therefore no revenues are available for capital improvements from these gas tax sources.				
	Assumes an annual inflation of 2.6 percent, which is based on the growth of VMT on the road system for Lake and Sumter counties. Twenty-five percent of Sumter County's 1st LOGT revenues will be spent within the boundaries of the Lake~Sumter MPO. Of the total gas tax revenue available from Sumter County, it is assumed that 25 percent will be spent on capital expansion road projects.				
	Revenues increased at a rate of 2 percent annually to account for increased gas tax from population increases.				



Figure 6-1

Lake~Sumter MPO 2025 Long Range Transportation Plan Revenue Projections (2011-2025) (All Revenues x 1,000)

4C. 2nd Local Option Gas Tax Revenues (LOGT) - Five Cents	
Total Base Revenue Available	\$0
Additional Revenue Option	\$0
Total Base and Enhanced Revenue	\$0
Enhanced Revenue Assumptions:	
4D. Local Option Sales Tax	
Total Base Revenue Available	\$26,530
Additional Revenue Option	\$40,728
Total Base and Enhanced Revenue	\$67,257
Assumptions:	
Enhanced Revenue Assumptions:	
Assumes that the sales tax will be renewed in 2015 and carried out through at least the year 2025.	
The sales tax is increased at an annual rate of four percent to account for increases in sales from population increases	
It is assumed that the County's portion for roads remains at 28 percent of the total sales tax revenues from 2011 to 2025 Of the County's portion for roads, it is assumed that 100 percent is being used for capital roads projects	

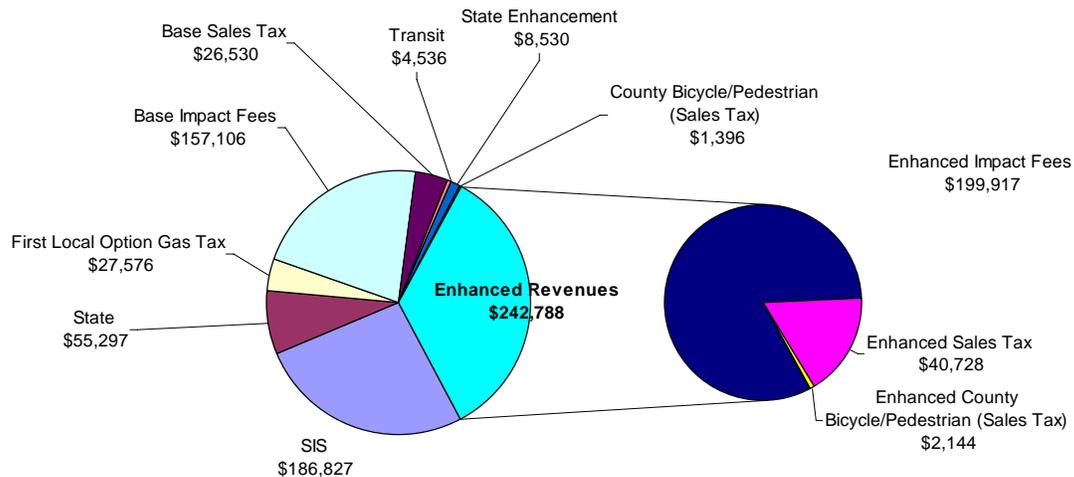
Figure 6-1



Lake~Sumter MPO 2025 Long Range Transportation Plan Revenue Projections (2011-2025) (All Revenues x 1,000)

5. Transit Revenues (Operating)					
Total Base Revenue Available	\$28,258				
Additional Revenue Option	\$0				
Total Base and Enhanced Revenue	\$28,258				
Assumptions:					
Available transit revenues, as outlined in the Lake County Transit Development Plan, adopted in 2005, available through 2025. Revenues in 2004 dollars					
Transit revenues include Federal and State revenue, as well as local matching funds of \$7.1 million through 2025.					
6. Bicycle/ Pedestrian Revenues - State Enhancement Fund (FDOT)					
Total Base Revenue Available	\$5,935				
Additional Revenue Option	\$0				
Total Base and Enhanced Revenue	\$5,935				
Assumptions:					
Source of revenue is State Enhancement Funds, FDOT.					
			Transferred to operating and maintenance		
Total Base Revenue Available	\$467,798	-\$11,217	\$456,581		
Additional Revenue Options	\$242,788		\$242,788		
Total Base and Enhanced Revenue	\$710,586		\$699,369	Available Revenues	Capital

Figure 6-2 Revenue Sources



Summary of Estimated Costs and Projected Revenues

An analysis comparing the 2025 Needs Plan costs to available revenues was undertaken. The results of this analysis are presented for 2011 to 2015, 2015 to 2025, and 2011 to 2025 in Tables 6-15, 6-16, and 6-17 respectively. These tables illustrate costs and revenues by mode of transportation for both capital and, operating and maintenance. With the commitment to the enhanced revenues as presented in this Chapter, the Lake~Sumter MPO has funded a large portion of its 2025 Needs Plan. Further discussion on the 2025 Cost Affordable Plan is found in Chapter 8.

Table 6-15
Cost Affordable Plan Revenues
(2011 - 2015) All Modes

CAPITAL				
Mode of Travel	Revenue (X1000)⁽¹⁾	Costs (X1000)		Difference (X1000)
FIHS/SIS	\$30,345	\$30,345		\$0
SIS	\$0	\$0		\$0
SIS - Toll Facility	\$0	\$0		\$0
State ⁽²⁾	\$19,846	\$22,270		(\$2,424)
County	\$131,984	\$138,654		(\$6,670)
<i>Subtotal - Roads</i>	<i>\$182,175</i>	<i>\$191,269</i>	<i>87.7%</i>	<i>(\$9,094)</i>
Public Transportation ⁽³⁾	\$1,877	\$1,533	0.7%	\$344
Bike / Pedestrian	\$4,292	\$4,292	2.0%	\$0
Total	\$188,344	\$197,094		(\$8,751)
OPERATING AND MAINTENANCE				
Mode of Travel	Revenue (X1000)	Costs (X1000)		Difference (X1000)
Roads, Bike / Pedestrian (County Only) ⁽⁵⁾	TBD	TBD		TBD
Public Transportation ⁽³⁾	\$17,336	\$20,903	9.6%	(\$3,567)
Total	\$17,336	\$20,903		(\$3,567)
Total Capital and Operating	\$205,680	\$217,997		(\$12,317)

(1) Revenue assumptions from LRTP Financial Analysis Chapter

(2) State road costs include total cost minus the cost of design. Design costs are funded from other State revenue sources

(3) Public Transportation shortfall of \$0.3 Million in capital is funded from gas tax revenues; and \$11.3 Million shortfall in operating costs is funded from gas tax.

(4) Bike / Pedestrian total revenues include an additional \$10.0 Million in sales tax over the current and extended sales tax allocation levels for bicycle and pedestrian capital.

(5) Roads, bike, and pedestrian operating and maintenance costs are funded with gas tax revenues

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Table 6-16
Cost Affordable Plan Revenues
Overall Summary
(2016 - 2025) All Modes

CAPITAL				
Mode of Travel	Revenue (X1000)⁽¹⁾	Costs (X1000)		Difference (X1000)
FIHS/SIS	\$0	\$0		\$0
SIS	\$78,751	\$78,751		\$0
SIS - Toll Facility	\$77,731	\$77,731		\$0
State ⁽²⁾	\$35,451	\$115,253		(\$79,802)
County	\$298,398	\$233,127		\$65,271
<i>Subtotal - Roads</i>	<i>\$490,332</i>	<i>\$504,862</i>	<i>89.8%</i>	<i>(\$14,531)</i>
Public Transportation ⁽³⁾	\$2,915	\$3,259	0.6%	(\$344)
Bike / Pedestrian	\$17,778	\$17,778	3.2%	\$0
Total	\$511,025	\$525,899		(\$14,874)
OPERATING AND MAINTENANCE				
Mode of Travel	Revenue (X1000)	Costs (X1000)		Difference (X1000)
Roads, Bike / Pedestrian (County Only) ⁽⁵⁾	TBD	TBD		TBD
Public Transportation ⁽³⁾	\$40,115	\$36,548	6.5%	\$3,567
Total	\$40,115	\$36,548		\$3,567
Total Capital and Operating	\$551,140	\$562,447		(\$11,307)

(1) Revenue assumptions from LRTP Financial Analysis Chapter

(2) State road costs include total cost minus the cost of design. Design costs are funded from other State revenue sources

(3) Public Transportation shortfall of \$0.3 Million in capital is funded from gas tax revenues; and \$11.3 Million shortfall in operating costs is funded from gas tax.

(4) Bike / Pedestrian total revenues include an additional \$10.0 Million in sales tax over the current and extended sales tax allocation levels for bicycle and pedestrian capital.

(5) Roads, bike, and pedestrian operating and maintenance costs are funded with gas tax revenues

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Table 6-17
Cost Affordable Plan Revenues
(2011 - 2025) All Modes

CAPITAL				
Mode of Travel	Revenue (X1000)⁽¹⁾	Costs (X1000)		Difference (X1000)
FIHS/SIS	\$30,345	\$30,345		\$0
SIS	\$78,751	\$78,751		\$0
SIS - Toll Facility	\$77,731	\$77,731		\$0
State ⁽²⁾	\$55,297	\$137,523		(\$82,226)
County	\$430,382	\$371,781		\$58,601
<i>Subtotal - Roads</i>	<i>\$672,507</i>	<i>\$696,131</i>	<i>89.2%</i>	<i>(\$23,625)</i>
Public Transportation ⁽³⁾	\$4,792	\$4,792	0.6%	\$0
Bike / Pedestrian	\$22,070	\$22,070	2.8%	\$0
Total	\$699,369	\$722,994		(\$23,625)
OPERATING AND MAINTENANCE				
Mode of Travel	Revenue (X1000)	Costs (X1000)		Difference (X1000)
Roads, Bike / Pedestrian (County Only) ⁽⁵⁾	TBD	TBD		TBD
Public Transportation ⁽³⁾	\$57,451	\$57,451	7.4%	\$0
Total	\$57,451	\$57,451		\$0
Total Capital and Operating	\$756,820	\$780,444		(\$23,625)

(1) Revenue assumptions from LRTP Financial Analysis Chapter

(2) State road costs include total cost minus the cost of design. Design costs are funded from other State revenue sources

(3) Public Transportation shortfall of \$0.3 Million in capital is funded from gas tax revenues; and \$11.3 Million shortfall in operating costs is funded from gas tax.

(4) Bike / Pedestrian total revenues include an additional \$10.0 Million in sales tax over the current and extended sales tax allocation levels for bicycle and pedestrian capital.

(5) Roads, bike, and pedestrian operating and maintenance costs are funded with gas tax revenues

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Appendix 6A: State Non-Capacity Revenues

Non-Capacity Programs

Non-capacity programs refer to FDOT programs designed to support and maintain the state transportation system: safety; resurfacing; bridge; product support; operations and maintenance; and administration. Table 6A-1 includes a description of each non-capacity program and the linkage to the program categories used in the PRP.

Metropolitan estimates have not been developed for these programs. Instead, the FDOT has included sufficient funding in the Interim 2005 Update of the 2020 Revenue Forecast to meet the following statewide objectives:

- **Resurfacing program:** Ensure that 80% of state highway system pavement meets Department standards;
- **Bridge program:** Ensure that 90% of FDOT-maintained bridges meet Department standards while keeping all FDOT-maintained bridges open to the public safe;
- **Operations and maintenance program:** Achieve 100% of acceptable maintenance condition standard on the state highway system;

- **Product Support:** Reserve funds for Product Support required to construct improvements (from the forecast’s capacity funds) in each district and metropolitan area; and
- **Administration:** Administer the state transportation program.

The Department has reserved funds in the Interim 2005 Update of the 2020 Revenue Forecast to carry out its responsibilities and achieve its objectives for the non-capacity programs on the state highway system in each district and metropolitan area. FDOT will develop statewide noncapacity needs cooperatively with MPOs and local governments to ensure consistency, to the maximum extent feasible, with MPO plans and local government comprehensive plans.

Table 6A-2 identifies the statewide estimates for the non-capacity programs, which are grouped in relationship to the related FTP Goals (Safe Transportation and System Management) and by the other major support and maintenance programs. About \$45 billion (49% of total revenues) is forecast for the non-capacity programs.

Table 6A-1: Description of the Major Non-Capacity Programs Included in the Interim 2005 Update of the 2020 Revenue Forecast and Corresponding Program Categories in the Program and Resource Plan (PRP)

Safe Transportation and System Management:		Other Programs:	
2020 Revenue Forecast Programs	PRP Program Categories	2020 Revenue Forecast Programs	PRP Program Categories
<p><u>Safety</u> - Includes the Highway Safety Improvement Program, the Traffic Safety Grant Program, Bicycle/Pedestrian Safety activities, the Industrial Safety Program, and general safety issues on a Department-wide basis.</p>	<p>Highway Safety Grants</p>	<p><u>Product Support</u> - Planning and engineering activities required to “produce” the Department's products and services (i.e., Capacity, Safety, Resurfacing, and Bridge programs).</p>	<p>Preliminary Engineering Construction Engineering Inspection Right of Way Support Environmental Mitigation Materials & Research Planning Public Transportation Operations</p>
<p><u>Resurfacing</u>- Resurfacing of pavements on the State Highway System and local roads as provided by state law.</p>	<p>Interstate Arterial and Freeway Off-System Turnpike</p>	<p><u>Operations & Maintenance</u> - Activities to support and maintain transportation infrastructure once it is constructed and in place.</p>	<p>Routine Maintenance Traffic Operations Toll Operations Motor Carrier Compliance</p>

Safe Transportation and System Management:		Other Programs:	
<p><u>Bridge</u> - Repair and replace deficient bridges on the state highway system. In addition, 15% of federal bridge funds must be expended off the federal highway system (i.e., on local government bridges not on the state highway system).</p>	<p>Repair - On System Replace - On System Local Bridge Replacement Turnpike</p>	<p><u>Administration</u> - Resources required to perform the fiscal, budget, personnel, executive direction, document reproduction, and contract functions. Also, includes the Fixed Capital Outlay Program, which provides for the purchase, construction, and improvement of non-highway fixed assets (e.g., offices, maintenance yards).</p>	<p>Administration Fixed Capital Outlay Office Information Systems</p>



Table 6A-2: STATEWIDE REVENUE FORECAST
AMOUNTS AND CATEGORIES OF NON-CAPACITY PROGRAM ESTIMATES
State and Federal Funds from Interim 2005 Update of the 2020 Revenue Forecast
(Millions, 2006 \$)

Florida Department of Transportation

Non-Capacity Program Emphasis Areas	Time Period				
	2006-10 ²	2011-15	2016-20	2021-25	25 Year Total ²
<i>Safe Transportation/System Management</i>					
Safety	356	206	189	171	922
Resurfacing	3,321	2,270	2,336	2,403	10,330
Bridge	805	844	815	782	3,247
<i>Product Support</i>	5,815	3,954	3,833	3,794	17,396
Operations & Maintenance	3,889	3,299	3,298	3,301	13,787
Administration	758	698	718	739	2,914
Total Non-Capacity Programs ²	14,944	11,271	11,189	11,191	48,595
Statewide Total, All Programs	30,632	21,603	20,973	20,542	93,750

¹ Based on 2006-10 Adopted Work Program (July 1, 2005). There are relatively more dollars in fiscal years 2006-2010 due to current plans for advancement of highway construction projects that are not reflected in estimates for 2011-2025 and to “carry-forwards” of funds from prior fiscal years.

² Columns and rows sometimes do not equal the totals due to rounding.



Appendix 6B: County Maintenance Revenues

Table 6B-1: Lake~Sumter Maintenance Revenues by Planning Horizon

(Deflated to 2004 Dollars, x1,000)

Revenue Source	Total 2001 to 2005	Total 2009 to 2010	Total 2011 to 2015	Total 2016 to 2020	Total 2021 to 2025	Total All Years
Functionally Classified Road System						
State						
FIHS	N/A	N/A	N/A	N/A	N/A	N/A
Other Arterial	N/A	N/A	N/A	N/A	N/A	N/A
Total State	N/A	N/A	N/A	N/A	N/A	N/A
County						
Constitutional Gas Tax	\$9,097	\$5,829	\$14,061	\$13,359	\$12,691	\$55,037
County Gas Tax	\$4,050	\$3,118	\$8,621	\$9,946	\$11,474	\$37,209
Ad Valorem Tax Transfer	\$20,052	\$8,835	\$22,593	\$23,332	\$24,096	\$98,908
1st Local Option Gas Tax	\$16,690	\$5,702	\$14,235	\$14,207	\$14,178	\$65,013
2nd Local Option Gas Tax	\$0	\$0	\$0	\$0	\$0	\$0
Ninth Cent (motor fuel & diesel fuel)	\$4,185	\$2,758	\$3,500	\$7,162	\$7,325	\$24,930
Total County	\$54,074	\$26,243	\$63,011	\$68,006	\$69,764	\$281,097
Total Road System	\$54,074	\$26,243	\$63,011	\$68,006	\$69,764	\$281,097
Public Transportation						
State and Federal						
Federal						\$0
State						\$0
Planning Revenues						\$0
Total State and Federal	\$0	\$0	\$0	\$0	\$0	\$0
County						
County Local Match						\$0
Passenger Revenues						\$0
Total County	\$0	\$0	\$0	\$0	\$0	\$0
Total Public Transportation	\$0	\$0	\$0	\$0	\$0	\$0
Bicycle/Pedestrian	N/A	N/A	N/A	N/A	N/A	N/A
Total All Programs	\$54,074	\$26,243	\$63,011	\$68,006	\$69,764	\$281,097

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Chapter 7: Needs Plan and Alternatives Testing

Introduction

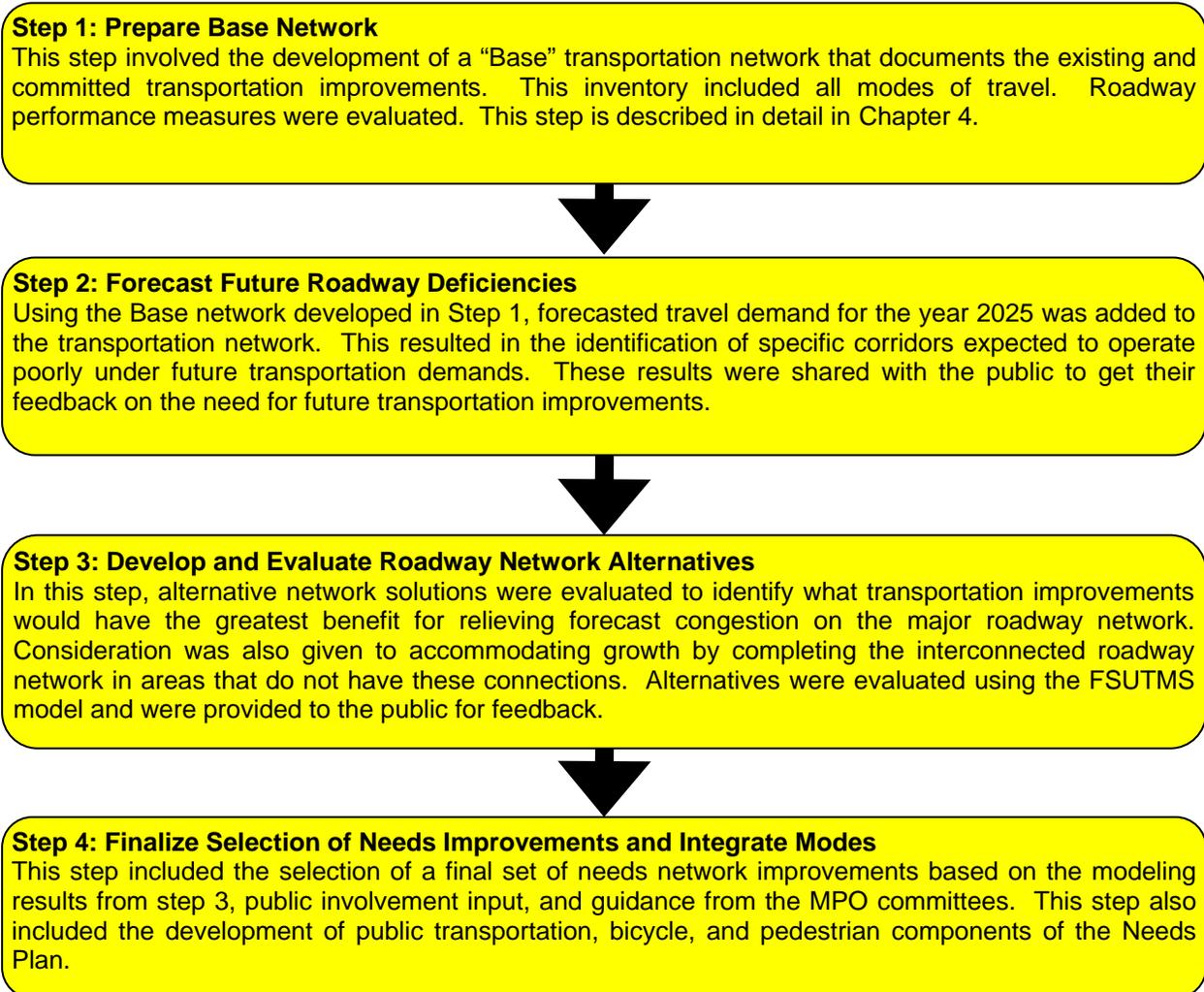
This chapter discusses the development of the Needs Plan, the transportation improvements included in the Needs Plan, and the alternatives evaluated throughout the development of the Needs Plan.

The Needs Plan was adopted on August 17, 2005 by the Lake-Sumter MPO Board. This plan represents the needed multimodal transportation improvements in the MPO planning area without regard to costs. The Needs Plan was later used as a foundation for the Cost Affordable Plan. If additional funding becomes available the Cost Affordable Plan can be amended to include additional projects from the Needs Plan or to fund other priorities.

Methodology

The methodology for developing the Needs Plan is illustrated in Figure 7-1 below:

Figure 7-1: Needs Plan Process



Prepare Base Network

The initial step included the development of a base transportation network that represents the Existing + Committed improvements identified in Chapter 4. This network was inputted into a transportation demand model.

Forecast Future Roadway Deficiencies

The second step involved forecasting the travel demand on the base network using the forecast socioeconomic data for 2025. This evaluation produced a forecast of the performance of the road system if no additional improvements were undertaken after the projects that were reasonably expected to be completed by the year 2010. A discussion concerning the development of the socioeconomic data is included as Chapter 5 of this report.

Develop and Evaluate Roadway Network Alternatives

The third step was to develop and evaluate needs plan roadway network alternatives. These alternatives were created through an assessment of roads that are forecast to be deficient if no roadway improvements were undertaken after the committed projects. Adjustments were made based on professional judgment and the consideration of public input. This step was performed in multiple iterations to test the effect of different alternatives to address congestion.

Finalize Selection of Needs Improvements and Integrate Modes

The fourth step was to finalize the selection of roadway improvements and to integrate other transportation modes, such as pedestrians, bicycles, and transit. Also included in this plan is the integration of Rails-to-Trails projects.

This plan built on work previously undertaken in the Minneola Areawide Study. The Minneola Areawide Study included revisions to the traffic analysis zone revisions and roadway network in the Minneola area using the Lake County Model. These revisions were brought forward into the Central Florida Regional Planning Model. The Lake County Model was used to forecast travel demand on the roadway network during the early stages of the needs plan development while the regional model was being developed. After the release of the regional model, the Needs Plan was evaluated using the regional model.

This Needs Plan also includes several major improvements, such as:

- The Wekiva Parkway, a freeway that connects I-4 south of Orlando to I-4 north of Orlando, effectively creating a complete beltway around Orlando
- The SR 46 Bypass, a freeway parallel to SR 46 in the Mount Plymouth area, connecting the Wekiva Parkway to US 441 in Mount Dora
- A toll freeway extending across the northern portion of the county connecting I-75 with the proposed Wekiva Parkway
- A North-South reliever for US 27 in the Leesburg Area
- A new turnpike interchange in Minneola
- The extension of the SR 408 East-West Expressway to US 27

Improvements Included in the Needs Plan

Table 7-1 displays the roadway improvement projects included in the needs plan. These projects are highlighted on Map 7-1. There are 894 lane-miles of roadway improvement projects, which is an increase of 53 percent over the Existing + Committed Network.



Map 7-2 illustrates the Pedestrian Facility Needs Plan. For Pedestrian Facilities, a project was considered a need if the following criteria are met:

- No sidewalk exists
- The location of the roadway is in an area expected to be urbanized
- The roadway is not a freeway

The Pedestrian Facilities Needs Plan includes 285.6 centerline miles of new sidewalks adjacent to roadways. Also included on Map 7-2 are the Rails-to-Trails needs.

Table 7-1: 2025 Needs Plan Projects and Costs

	Street	From Street	To Street	2010 Road Type	2025 Needs Road Type	Design Cost	ROW Cost	Construction Cost	Total Cost
SIS	SR 91	SULLIVAN RD	ORANGE CO. LINE	4F	6F	\$ 6,827,656	\$ 5,057,523	\$ 25,287,616	\$ 57,172,795
	SR 25 (US 27)	CR 561A	O'BRIEN RD	4D	6D	\$ 9,503,356	\$ 33,358,301	\$ 45,392,506	\$ 88,254,163
	SR 25 (US 27)	CR 33	SR 44	4D	6D	\$ 2,654,502	\$ 1,966,297	\$ 9,831,489	\$ 14,452,288
	SR 25 (US 27)	MAIN ST	MAIN ST	4U	6D	\$ 1,593,344	\$ 1,180,255	\$ 5,901,273	\$ 8,674,872
	SR 46 BYPASS	SR 46	ORANGE COUNTY LINE	00	4F	\$ 5,803,237	\$ 4,298,694	\$ 21,493,469	\$ 31,595,400
	US 27/US 441	WEST BOONE CT	POLK COUNTY	4D	6D	\$ 789,942	\$ 585,142	\$ 2,925,710	\$ 4,300,794
	WEKIVA PKWY	ORANGE COUNTY LINE	SEMINOLE COUNTY LINE	00	4F	\$ 11,232,759	\$ 8,320,562	\$ 41,602,812	\$ 61,156,133
State Roads	SR 19	SR 25 (US 27)	O'BRIEN RD (N)	2U	4D	\$ 1,573,189	\$ 1,165,325	\$ 5,826,627	\$ 8,565,141
	SR 19	CR 48	CR 561	2U	6D	\$ 15,406,283	\$ 2,919,022	\$ 57,060,307	\$ 75,385,612
	SR 19	CR 561	SR 19 (NB/SB)	4D	6D	\$ 3,146,352	\$ 2,330,632	\$ 11,653,162	\$ 17,130,146
	SR 19	CR 450 (S)	CR 42	2U	4D	\$ 1,840,656	\$ 1,363,449	\$ 6,817,245	\$ 10,021,350
	SR 19	SR 50 (EB)	SR 25 (US 27)	2U	4D	\$ 4,546,418	\$ 3,367,717	\$ 16,838,582	\$ 24,752,717
	SR 19 / CR 561 CONNECTOR	SR 19	CR 561	00	4D	\$ 4,618,583	\$ 3,421,173	\$ 17,105,864	\$ 25,145,620
	SR 33	LAKE ERIE RD	SR 50	2U	4D	\$ 4,308,872	\$ 3,191,756	\$ 15,958,782	\$ 23,459,410
	SR 408	SR 27	ORANGE COUNTY LINE	00	4F	\$ 6,138,848	\$ 4,547,295	\$ 22,736,473	\$ 33,422,616
	SR 44	CR 44	VOLUSIA CO. LINE	2U	4D	\$ 15,236,586	\$ 11,286,359	\$ 56,431,796	\$ 82,954,741
	SR 46	SR 500 (US 441)	SEMINOLE CO LINE	2U	4D	\$ 9,566,461	\$ 7,086,267	\$ 35,431,337	\$ 52,084,065
	SR 50	SUMTER CO. LINE	SUNSET AV	2U	4D	\$ 2,761,960	\$ 2,045,897	\$ 10,229,482	\$ 15,037,339
	SR 50	CR 561	HANCOCK RD	4D	6D	\$ 3,962,657	\$ 2,935,301	\$ 14,676,507	\$ 21,574,465
	SR 500 (US 441)	CR 44A	WOLF BRANCH RD	4D	6D	\$ 4,997,224	\$ 3,701,648	\$ 18,508,237	\$ 27,207,109
Roads	BRONSON RD	CR 561	LAKESHORE DR	00	2U	\$ 193,922	\$ 228,144	\$ 1,140,720	\$ 1,562,786
	CAPT. HAYNES	SR 19	DEAD RIVER RD	00	2U	\$ 206,769	\$ 243,258	\$ 1,216,288	\$ 1,666,315
	CHERRY LAKE RD	CR 478	E APSHAWA RD	2U	4D	\$ 716,447	\$ 842,879	\$ 4,214,394	\$ 5,773,720
	CR 25	US 27/US 441 (S)	US 27/US 441 (N)	2U	2D	\$ 74,534	\$ 87,687	\$ 438,433	\$ 600,654
	CR 25A	THOMAS AV	CR466A	2U	2D	\$ 141,506	\$ 166,478	\$ 832,391	\$ 1,140,375
	CR 25	US 27/US 441 (N)	MARION CO. LINE	2U	4D	\$ 741,432	\$ 872,273	\$ 4,361,364	\$ 5,975,069
	CR 33	CR 48	CR 470	2U	4D	\$ 174,443	\$ 205,227	\$ 1,026,136	\$ 1,405,806
	CR 33	CR 470	SR 25 (US 27)	2U	6D	\$ 939,966	\$ 1,105,843	\$ 5,529,214	\$ 7,575,023
	CR 437	SR 46	WOLF BRANCH RD	2U	4D	\$ 167,553	\$ 197,121	\$ 985,606	\$ 1,350,280
	CR 439	SR 44	CR 44A	2U	4D	\$ 514,958	\$ 605,833	\$ 3,029,167	\$ 4,149,958
	CR 44	SR 500 (US 441)	CR 473	2U	4D	\$ 1,423,300	\$ 1,674,470	\$ 8,372,349	\$ 11,470,119
	CR 44	CR 473	CR 44A (LEG)	2U	6D	\$ 5,629,443	\$ 6,622,873	\$ 33,114,371	\$ 45,366,687
	CR 44	CR 44A (LEG)	SR 44	2U	4D	\$ 380,117	\$ 447,197	\$ 2,235,985	\$ 3,063,299
	CR 441 (OLD)	SR 500 (US 441)	SR 19	2U	4D	\$ 99,939	\$ 117,576	\$ 587,879	\$ 805,394
	CR 441 (OLD)	SR 19	CR 44C	2U	2D	\$ 486,926	\$ 572,854	\$ 2,864,270	\$ 3,924,050
	CR 448	CR 561	ORANGE COUNTY LN	2U	4D	\$ 1,763,171	\$ 2,074,318	\$ 10,371,591	\$ 14,209,080
	CR 448	SR 500 (US 441)	SR 44	4D	6D	\$ 1,880,852	\$ 1,393,224	\$ 6,966,119	\$ 10,240,195
	CR 448A	CR 48	DUDA RD	2U	4D	\$ 173,992	\$ 204,697	\$ 1,023,485	\$ 1,402,174
	CR 44A	ESTES RD	CR 439	2U	6D	\$ 1,493,167	\$ 1,756,667	\$ 8,783,333	\$ 12,033,167
	CR 44A (LEG)	CR 44	CR 44A	2U	6D	\$ 577,903	\$ 679,886	\$ 3,399,432	\$ 4,657,221
	CR 452	SR 19 (NB)	CR 44	2U	4D	\$ 316,110	\$ 371,894	\$ 1,859,470	\$ 2,547,474
	CR 455	CR 561	SR 19	2U	4D	\$ 928,561	\$ 1,092,424	\$ 5,462,121	\$ 7,483,106
	CR 455B	FOSGATE RD	CR 581	00	4D	\$ 526,485	\$ 619,394	\$ 3,096,970	\$ 4,242,849
	CR 460	CR 468	US 27/US 441	00/2U	4D	\$ 474,004	\$ 557,651	\$ 2,788,257	\$ 3,819,912
	CR 466	CR 101	US 27/US 441	4D	6D	\$ 1,320,445	\$ 1,553,464	\$ 7,767,321	\$ 10,641,230
	CR 466A	SUMTER CO. LINE	US 27/US 441	2U	4D	\$ 5,274,228	\$ 9,429,825	\$ 19,868,421	\$ 34,572,474
	CR 468	SR 44	CR 466A	2U	4D	\$ 1,156,064	\$ 1,360,076	\$ 6,800,379	\$ 9,316,519
	CR 46A	ORLANDO BELTWAY	ORLANDO BELTWAY	2U	4D	\$ 1,841,344	\$ 2,166,288	\$ 10,831,440	\$ 14,839,072
	CR 470	SUMTER CO. LINE	SR 91	2U	4D	\$ 315,144	\$ 370,758	\$ 1,853,788	\$ 2,539,690
	CR 470	SR 91	SR 25 (US 27)	2U	6D	\$ 2,510,611	\$ 2,953,660	\$ 14,768,300	\$ 20,232,571
	CR 473	SR 500 (US 441)	CR 44	2U	4D	\$ 1,289,875	\$ 1,517,500	\$ 7,587,500	\$ 10,394,875
	CR 478	SR 19	CHERRY LAKE RD	2U	4D	\$ 1,214,470	\$ 1,428,788	\$ 7,143,940	\$ 9,787,198
	CR 48	SR 25 (US 27)	SR 19	2U	6D	\$ 4,404,392	\$ 5,181,638	\$ 25,908,191	\$ 35,494,221
	CR 48	N. AUSTIN MERRITT	CR 33	2U	4D	\$ 1,459,811	\$ 1,717,424	\$ 8,587,121	\$ 11,764,356
	CR 48	CR 561	CR 448A	2U	4D	\$ 1,364,572	\$ 1,605,379	\$ 8,026,894	\$ 10,996,845
	CR 50	LAKESHORE DR	SR 25 (US 27)	00	2U	\$ 48,634	\$ 57,216	\$ 286,080	\$ 391,930
	CR 50	TURKEY FARMS RD	HANCOCK RD	2U	4D	\$ 94,466	\$ 111,136	\$ 555,682	\$ 761,284

	Street	From Street	To Street	2010 Road Type	2025 Needs Road Type	Design Cost	ROW Cost	Construction Cost	Total Cost
County F	CR 561	SR 25 (US 27)	SR 19	2U	4D	\$ 4,167,639	\$ 4,903,107	\$ 24,515,530	\$ 33,586,276
	CR 561A	CR 561	FOSGATE RD	2U	4D	\$ 688,500	\$ 810,000	\$ 4,050,000	\$ 5,548,500
	CR 565A	SR 50	CR 561A	2U	2D	\$ 346,642	\$ 407,814	\$ 2,039,072	\$ 2,793,528
	CRITTEDEN RD	SR 50	SR 33	00	2U	\$ 65,059	\$ 76,540	\$ 382,699	\$ 524,298
	DUDA RD	CR 448A	COUNTY LINE	2U	4D	\$ 202,455	\$ 238,182	\$ 1,190,909	\$ 1,631,546
	E. APSHAWA RD	CHERRY LAKE RD	SR25 (US 27)	2U	4D	\$ 492,034	\$ 578,864	\$ 2,894,318	\$ 3,965,216
	E. ORANGE AV	SR 19 (SB)	CR 44	2U/4U	4D	\$ 1,427,216	\$ 1,057,197	\$ 5,285,986	\$ 7,770,399
	EAGLESNEST RD	US 27/US 441	CR 44	00/2U	6D	\$ 964,794	\$ 1,135,052	\$ 119,594,559	\$ 121,694,405
	EAST-WEST EXPRESSWAY	COUNTY LINE	SR 46	00	4F	\$ 2,657,150	\$ 1,968,259	\$ 9,841,295	\$ 14,466,704
	EICHELBERGER	SR 19	CR 561	2U	6D	\$ 733,109	\$ 862,481	\$ 4,312,405	\$ 5,907,995
	FOSGATE RD	TURNPIKE INTERCHANGE RD	CR 455 (W)	00	4D	\$ 1,175,448	\$ 1,382,879	\$ 6,914,394	\$ 9,472,721
	GOLF LINKS	KURT ST	SR 19	00	2U	\$ 59,859	\$ 70,422	\$ 352,112	\$ 482,393
	GRASSY LAKE RD	TURKEY FARMS RD	SULLIVAN RD	2U	4D	\$ 165,170	\$ 194,318	\$ 971,591	\$ 1,331,079
	HANCOCK RD	LAKE LOUISA RD	SR 50	2U	4D	\$ 1,263,666	\$ 1,486,667	\$ 7,433,333	\$ 10,183,666
	HARTLE RD	SHELL POND RD	SR 50	00/2U	4D	\$ 2,321,722	\$ 2,731,439	\$ 13,657,198	\$ 18,710,359
	HOOKS ST	LAKESHORE DR	SR 25 (US 27)	00	2U	\$ 55,271	\$ 65,025	\$ 325,123	\$ 445,419
	HOOKS ST	HANCOCK RD	HARTLE RD	00	4D	\$ 499,761	\$ 587,955	\$ 2,939,773	\$ 4,027,489
	JOHNS LAKE RD	HANCOCK RD	HARTLE RD	00	2U	\$ 218,851	\$ 257,472	\$ 1,287,358	\$ 1,763,681
	KURT ST	SR 500 (US 441)	GOLF LINKS	2U	2D	\$ 110,440	\$ 129,930	\$ 649,650	\$ 890,020
	LAKE ELLA RD	NORTH-SOUTH CORRIDOR	PADGETT LN	00	6D	\$ 1,410,274	\$ 1,659,146	\$ 8,295,729	\$ 11,365,149
	LAKE GRIFFIN RD	LEMMON ST	GRAYS AIRPORT RD	2U	2D	\$ 275,852	\$ 324,531	\$ 1,622,656	\$ 2,223,039
	LAKE LOUISA RD	HANCOCK RD	SR 25 (US 27)	2U	4D	\$ 225,958	\$ 265,833	\$ 1,329,167	\$ 1,820,958
	LAKESHORE DR	CRESCENT LN	LAKE LOUISA RD	2U	2D	\$ 262,826	\$ 309,207	\$ 1,546,037	\$ 2,118,070
	LOG HOUSE RD	CR 561	LAKESHORE DR	00	2U	\$ 133,666	\$ 157,254	\$ 786,269	\$ 1,077,189
	N. FRONTAGE RD	START	CR 50	00	2U	\$ 324,009	\$ 381,188	\$ 1,905,938	\$ 2,611,135
	N. GRASSY LAKE RD	SR 25 (US 27)	TURKEY FARMS RD	00	4D	\$ 363,439	\$ 427,576	\$ 2,137,879	\$ 2,928,894
	NORTH-SOUTH CORRIDOR	SR 91	US 27/US 441	00	4D	\$ 5,442,867	\$ 5,520,955	\$ 27,604,772	\$ 38,568,594
	NORTH-SOUTH CORRIDOR	CR 466	OAK ST	2U	4D	\$ 168,004	\$ 197,652	\$ 988,258	\$ 1,353,914
	PADGETT LN	LAKE ELLA RD	US 27/US 441	00	6D	\$ 279,120	\$ 328,377	\$ 1,641,884	\$ 2,249,381
	Q	CR 25A	SR 44	00	4D	\$ 455,008	\$ 535,303	\$ 2,676,515	\$ 3,666,826
	RADIO RD	TREADWAY SCHOOL RD	CR 44	2U	4D	\$ 584,568	\$ 687,727	\$ 3,438,636	\$ 4,710,931
	RANCH RD	WOLF BRANCH RD	SR 44	00	4D	\$ 871,636	\$ 1,025,455	\$ 5,127,273	\$ 7,024,364
ROUND LAKE RD	ORANGE CO. LINE	WOLF BRANCH RD	2U	4D	\$ 688,629	\$ 810,152	\$ 4,050,758	\$ 5,549,539	
SHELL POND RD	SR 25 (US 27)	ORANGE CO. LINE	00	4D	\$ 1,331,924	\$ 1,566,970	\$ 7,834,849	\$ 10,733,743	
SULLIVAN RD	GRASSY LAKE RD	TURKEY FARMS RD	00	2U	\$ 184,134	\$ 216,629	\$ 1,083,144	\$ 1,483,907	
TURKEY FARMS RD	CR 50	SULLIVAN RD	00	4D	\$ 927,015	\$ 1,090,606	\$ 5,453,030	\$ 7,470,651	
TURNPIKE INTERCHANGE RD	TURKEY FARM RD	FOSGATE RD	00	6D	\$ 435,798	\$ 512,704	\$ 2,563,518	\$ 3,512,020	
WOLF BRANCH RD	SR 500 (US 441)	CR 437	2U	4D	\$ 1,593,493	\$ 1,874,697	\$ 9,373,485	\$ 12,841,675	
Totals	SIS Facilities					\$ 38,404,796	\$ 54,766,774	\$ 152,434,875	\$ 265,606,445
	Other State Roads					\$ 78,104,089	\$ 49,361,841	\$ 289,274,401	\$ 416,740,331
	County Roads					\$ 75,892,562	\$ 89,028,585	\$ 531,781,504	\$ 696,702,651
	Plan Total					\$ 192,401,447	\$ 193,157,200	\$ 973,490,780	\$ 1,379,049,427

Lake - Sumter MPO

2025 Long Range Transportation Plan

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

Alignment to be determined

SUMTER

POLK

LEGEND

		NUMBER OF LANES			
		2	3	4	6
ROAD TYPE	One-Way	---			
	Undivided	—	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■
	Divided	—		■ ■ ■ ■	■ ■ ■ ■
	Freeway			■ ■ ■ ■	■ ■ ■ ■

- New or Expanded Roads
- New Cross-County Toll Facility
- New North South US 27/US 441 Reliever
- SR 46 Bypass
- Wekiva Parkway



Map 7-1
2025 Needs Plan
Number of Lanes & Road Type

Lake - Sumter MPO

2025 Long Range Transportation Plan

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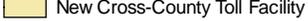
ORANGE

Alignment to be determined

SUMTER

POLK

LEGEND

-  Existing Rails-to-Trails
-  Proposed Rails-to-Trails
-  Existing Sidewalks
-  Sidewalk Needs Plan
-  New Cross-County Toll Facility
-  New North South US 27/US 441 Reliever
-  SR 46 Bypass
-  Wekiva Parkway



Map 7-2
2025 Needs Plan
Pedestrian Facilities



Map 7-3 illustrates the Bicycle Facilities Needs Plan, which includes on-road bicycle facilities, multi-use trails, and Rails-to-Trails projects. Similar to above, for bicycle facilities, a location was considered a need if the following criteria were met:

- No bicycle facility exists
- The roadway is not freeway

It is noted that new toll projects generally have a multi-use trail located adjacent to them. Because of this, the SR 46 Bypass and Wekiva Parkway are shown on the maps as bicycle facility needs, although they are intended for both bicyclists and pedestrians. Also, Rails-to-Trails projects that are identified as needs are included as bicycle facility needs. The Rails-to-Trails projects are illustrated on both the pedestrian and bicycle needs maps. The Bicycle Facility Needs Plan includes 348.5 centerline miles of new bicycle facilities on or adjacent to roadways in addition to those constructed concurrently with roadway improvement projects, 106.7 miles of multi-use trails projects and Rails-to-Trails projects.

The Transit Needs Plan is illustrated in Map 7-4. Transit needs were identified primarily from the Lake County Transit Development Plan. It is anticipated that additional needs will be developed through the Transit Development Plan update process. This Needs Plan includes 7 transit routes, which provide service to 57.7 centerline miles of roadways. The transit service area, a ¼ mile buffer distance surrounding the bus routes, should include an area of 17,265 acres. Based on the forecast socioeconomic data, the transit service area should include approximately 38,730 people in 2025, which is an increase of 32 percent from 2000. Two of these bus routes are extensions of LYNX bus routes, and five of the routes are new transit routes to be operated by Lake County Transit.

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2025 Long Range Transportation Plan

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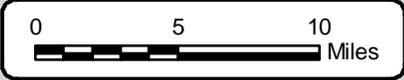
Alignment to be determined

SUMTER

POLK

LEGEND

-  Existing Rails-to-Trails
-  Proposed Rails-to-Trails
-  Bicycle Needs Plan
-  New Cross-County Toll Facility
-  New North South US 27/US 441 Reliever
-  SR 46 Bypass
-  Wekiva Parkway



Map 7-3
2025 Needs Plan
Bicycle Facilities



Lake - Sumter MPO

2025 Long Range Transportation Plan

2025 Needs Plan Transit Routes

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Alignment to be determined

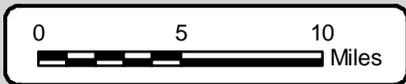
SUMTER

ORANGE

POLK

LEGEND

-  Lynx 55 Extension (US 192)
-  New Lynx Route (SR 50)
-  Mall West
-  Mid-County Mall East
-  Leesburg
-  Eustis
-  Golden Triangle
-  Lady Lake
-  New Cross-County Toll Facility
-  New North South US 27/US 441 Reliever
-  SR 46 Bypass
-  Wekiva Parkway



Map 7-4
2025 Needs Plan
Transit Routes

Performance of the 2025 Needs Plan

As part of the development of the 2025 Needs Plan, a travel demand model was used to forecast roadway volumes in the year 2025. Traffic volumes from the travel demand model were imported into a database that was used to perform a Generalized Level of Service Analysis and to summarize performance of the MPO's major road network by calculating the percent of vehicle miles of travel in congested conditions. This summary is included in Tables 7-2 and 7-3. Table 7-2 includes a summary of vehicle miles of travel on roadways where the roadway volume is greater than the roadways maximum service volume, which is the volume that corresponds to the roadways adopted Level of Service Standard. Table 7-3 includes a summary of the vehicle miles of travel on roadways that are greater than their physical capacity. These reports give an overall indicator of roadway transportation in the Lake-Sumter MPO planning area. Based on these reports, 29 percent of the vehicle miles of travel are forecasted to be in deficient conditions, and 11 percent of the vehicle miles of travel are forecasted to be in severely congested conditions.

A generalized Level of Service Analysis was performed for all the roads on the MPO's Major Road Network. The result of this analysis is included in Map 7-5. The roads highlighted in purple on the map are roads that are forecasted to be deficient, which means that their volume is greater than their maximum service volume. This map illustrates the following roads as severely congested, with a Level of Service of F. These roadways are colored as red in Map 7-5.

- US 27/US 441 from Lake Ella Road to Marion County, and in some portions of Leesburg
- Morse Boulevard from CR 101 to US 27
- CR 48 from CR 33 to CR 470
- SR 50 in Clermont
- US 27 in Minneola
- SR 50 in Groveland
- SR 33/SR 19 Connector in Groveland
- SR 33 through the Green Swamp
- Old CR 441 in Tavares
- SR 44 in Mount Dora
- Wolf Branch Road in Mount Dora
- CR 437 in Mount Dora
- SR 44 in the northeastern part of the county



This map also illustrates the following roads as deficient, and approaching a severely congested condition, with a Level of Service of E. These roadways are colored as orange in Map 7-5.

- CR 452 from Emerald Ave to North County Line
- CR 48 from Sumter County to CR 33 in Leesburg
- SR 19 from SR 50 to CR 48 in Howey-In-The-Hills
- CR 474 in the Green Swamp
- Old CR 441 in Tavares

Many of these roads are constrained by development and are not able to be widened because of the significant public opposition and astronomical cost. Detailed performance information can be found in the Technical Appendix Section 7C.

At the conclusion of the needs plan, the highway, bicycle, pedestrian, and transit costs are determined and compared to the revenues. This comparison is presented in Table 7-2. Based on this table, there is a funding shortfall of over \$1 billion, which includes a shortfall of over \$300 million for State Roads, over \$400 million for County Roads, and over \$350 million for bicycle and pedestrian improvements. Methods to deal with this include removing transportation improvement projects from the needs plan to formulate a cost affordable plan, and enhancing the revenues to ensure that all available revenues are being collected and utilized. This process is discussed in the 2025 Cost Affordable Plan (Chapter 8).

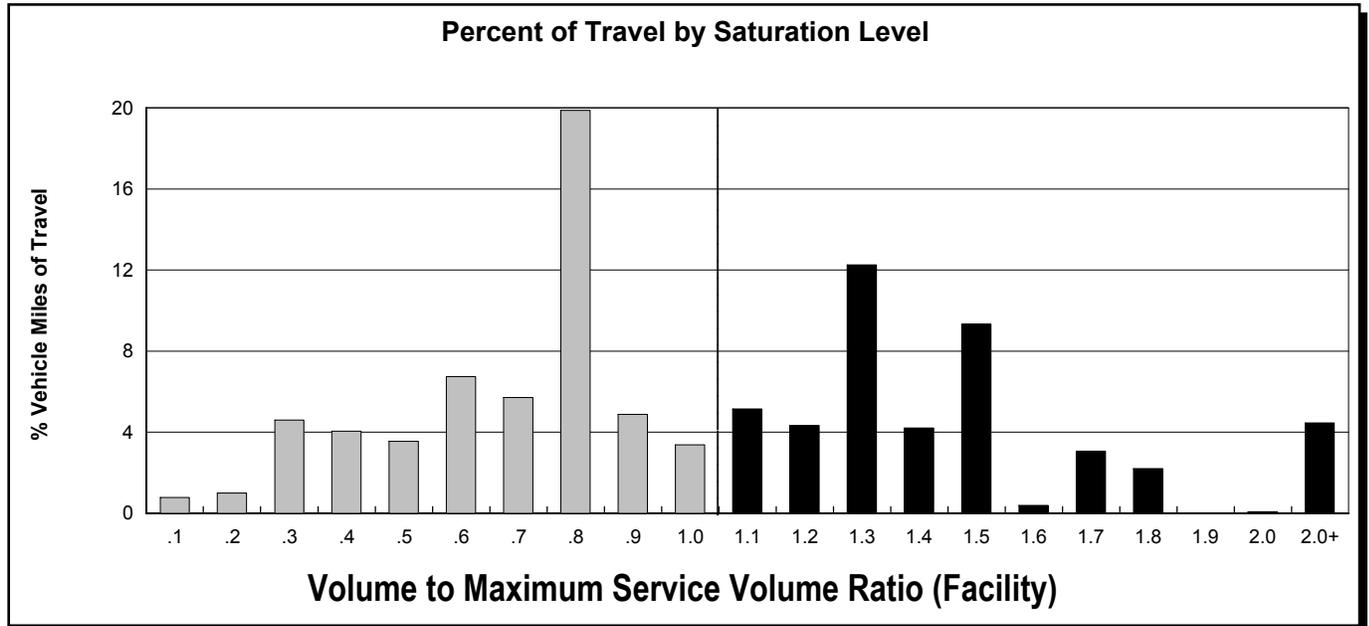
Table 7-2: Summary of Costs and Revenues for the 2025 Adopted Needs Plan

Mode of Travel	Revenue (X1,000)	Costs (X1,000)	Difference (x1,000)
FIHS/SIS	\$186,827	\$186,827	\$0
State ⁽²⁾	\$55,297	\$378,312	(\$323,015)
County	\$199,738	\$634,051	(\$434,313)
<i>Subtotal - Roads</i>	<i>\$453,336</i>	<i>\$1,199,191</i>	<i>(\$757,329)</i>
Public Transportation	\$4,792	\$4,792	(\$0)
Bike / Pedestrian	\$9,926	\$380,864	(\$370,938)
Total	\$467,798	\$1,584,848	(\$1,128,523)

(1) Reflects 0.3 Million transfer to Public Transportation Capital and \$11.3 Million Transfer to Public Transportation Operation

(2) Reflects 0.3 Million transfer from County Gas Tax

Table 7-3 Road System Performance Evaluation 2025 Cost Affordable Plan - Based on Maximum Service Volume



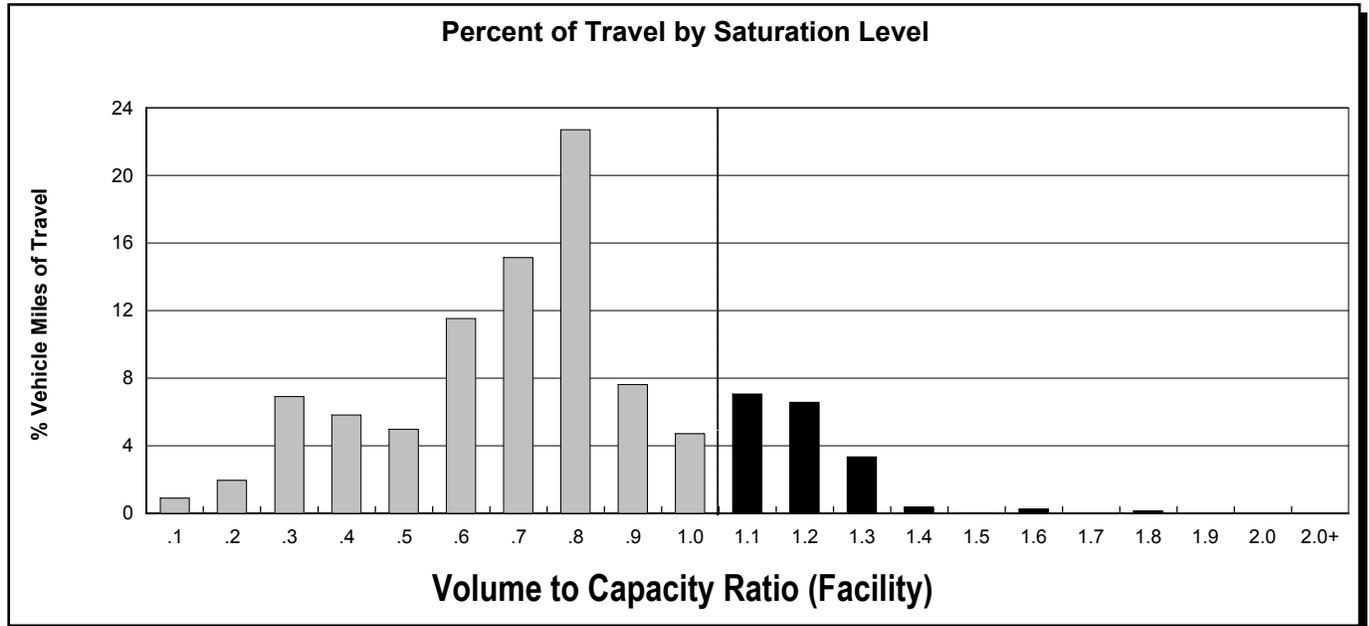
Percent of VMT with V/MSV Ratio Greater than 1.0: 45.45%
Based on: Maximum Service Volume

Roadway Type	V/MSV Ratio	VMT	% VMT Below STD.	VMC
All Roads	1.0085	783,040	45.45	1,853,889
All State Roads	1.2344	471,606	67.16	679,240
Intrastate Roads (Interstate Only)	1.3446	72,633	100.00	96,831
Intrastate Roads (Non-Interstate Only)	1.2821	115,964	78.36	155,666
Other State Roads	1.1866	283,009	54.14	426,742
County Roads	0.6664	311,434	12.56	1,176,722
All Other Roads	0.0000	0	0.00	0

Definition of Terms:

V/MSV Ratio: Volume to Maximum Service Volume Ratio
VMT: Vehicle Miles of Travel
% VMT Below STD: The percentage of Vehicle Miles of Travel where Volume to Maximum Service Volume (V/MSV) => 1
VMC: Vehicle Miles of Capacity

Table 7-4 Road System Performance Evaluation 2025 Cost Affordable Plan - Based on Physical Capacity



Percent of VMT with V/C Ratio Greater than 1.0: 17.74%
Based on: Physical Capacity

Roadway Type	VC Ratio	VMT	% VMT With V/C>1	VMC
All Roads	0.7044	783,040	17.74	1,853,889
All State Roads	0.8054	471,606	26.37	679,240
Intrastate Roads (Interstate Only)	0.7540	72,633	0.00	96,831
Intrastate Roads (Non-Interstate Only)	0.7813	115,964	24.10	155,666
Other State Roads	0.8284	283,009	34.06	426,742
County Roads	0.5514	311,434	4.67	1,176,722
All Other Roads	0.0000	0	0.00	0

Definition of Terms:

VC Ratio: Volume to Capacity Ratio
VMT: Vehicle Miles of Travel
% VMT With V/C>1: The percentage of Vehicle Miles of Travel where Volume to Capacity Ratio (VC Ratio) > 1
VMC: Vehicle Miles of Capacity

Lake - Sumter MPO

2025 Long Range Transportation Plan

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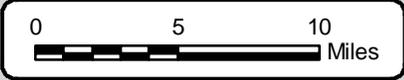
Alignment to be determined

SUMTER

POLK

LEGEND

- LOS Not Calculated
- LOS A
- LOS B
- LOS C
- LOS D
- LOS E
- LOS F
- Potentially Deficient Roads (based on Level of Service Standard)
- New Cross-County Toll Facility
- New North South US 27/US 441 Reliever
- SR 46 Bypass
- Wekiva Parkway



Map 7-5
2025 Needs Plan
Level of Service





2025 Needs Plan Alternatives

Two initial alternatives of the needs plan were evaluated. The initial alternative was the Existing + Committed network described at the beginning of this chapter. This network is illustrated in Map 7-6. The second alternative is illustrated in Map 7-7. This second network alternative was presented to a joint Technical Advisory Committee and Citizen's Advisory Committee meeting that resulted in the addition of the East-West Expressway along the northern part of Lake County that would be expected to extend to I-75 in Sumter County. Detailed information about these alternatives is included in Technical Appendixes 7A (Existing + Committed Network) and 7B (Needs Alternative 2).

Additional Plan Items

Additional items for the needs plan include Intelligent Transportation Systems, Transportation Demand Management and Goods Movement. These items are discussed in greater detail in the Cost Affordable Plan chapter (Chapter 8) of this document.

Conclusion

A Needs Plan was developed for the Lake-Sumter MPO Long Range Transportation Plan to assist in the development of the 2025 Cost Affordable Plan. This plan was presented to the public and to the MPO Standing Committees on multiple occasions. The 2025 Needs Plan was formally adopted by the MPO Board on August 17th, 2005. This Needs Plan includes 913 lane miles of roadway improvements, 285.6 roadway centerline miles of sidewalk construction, 348.5 roadway centerline miles of bike lane or bike shoulder construction, 106.7 miles of multi-use trails and Rails-to-Trails projects, and 7 bus routes that provide service to 57.7 centerline miles of roadway.

Lake - Sumter MPO

2025 Long Range Transportation Plan

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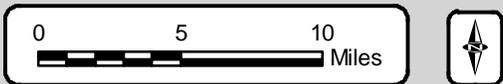
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LEGEND

		NUMBER OF LANES			
		2	3	4	6
ROAD TYPE	One-Way	---			
	Undivided	—	—	—	—
	Divided	—	—	—	—
	Freeway	—	—	—	—

New or Expanded Roads



Map 7-6
2010 Existing + Committed Network
Number of Lanes & Road Type

Lake - Sumter MPO

2025 Long Range Transportation Plan

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ORANGE

Alignment to be determined

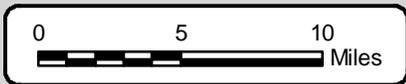
SUMTER

POLK

LEGEND

		NUMBER OF LANES			
		2	3	4	6
ROAD TYPE	One-Way	---			
	Undivided	—	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■
	Divided	—		■ ■ ■ ■	■ ■ ■ ■
	Freeway			■ ■ ■ ■	■ ■ ■ ■

- New or Expanded Roads
- New Cross-County Toll Facility
- New North South US 27/US 441 Reliever
- SR 46 Bypass
- Wekiva Parkway



Map 7-7

2025 Needs Alternative 1
Number of Lanes & Road Type



Chapter 8: 2025 and 2015 Cost Affordable Plans

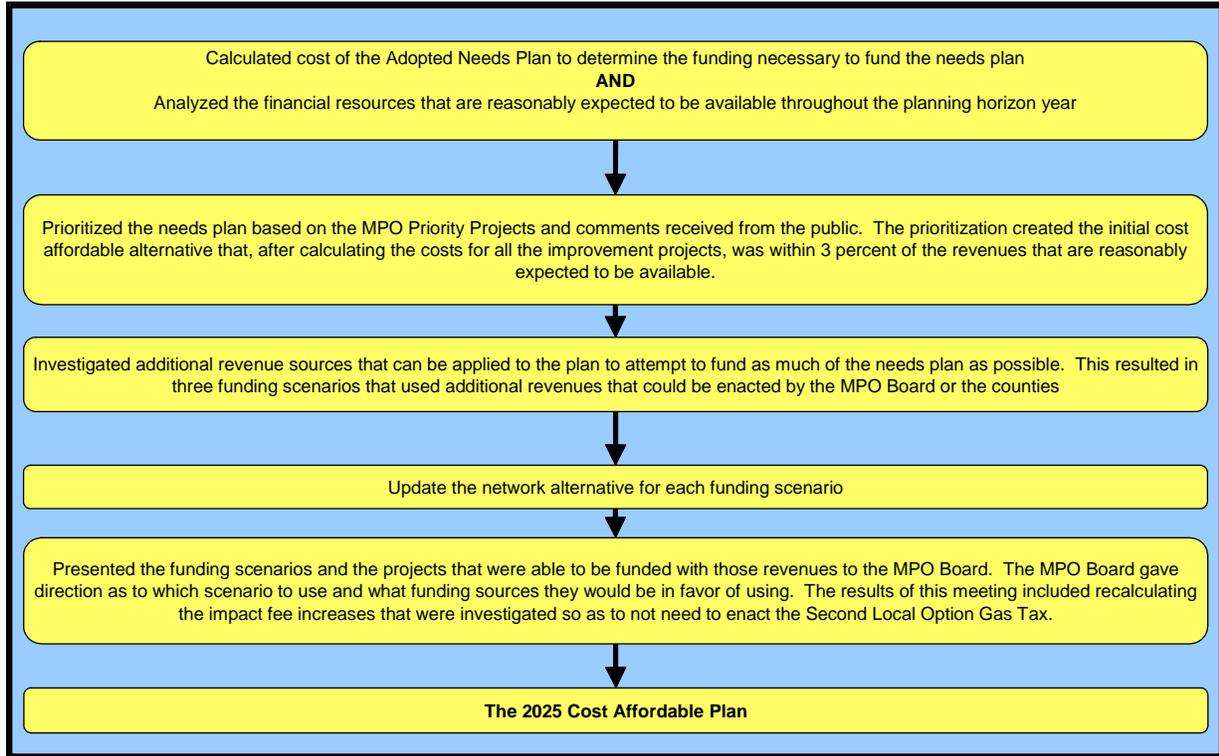
This chapter presents the 2025 Cost Affordable Plan adopted by the MPO board. Included in this chapter is the methodology used to develop the 2025 Cost Affordable Plan and the improvements included in the 2025 Cost Affordable Plan and the 2015 Interim Year Plan. This chapter also includes a summary of the alternatives that were evaluated while developing the 2025 Cost Affordable Plan.

The Cost Affordable Plan has five components: the road system, goods movement, the multi-modal system, Intelligent Transportation Systems, and Travel Demand Management. The plan must also address compliance with the goals and objectives discussed in Chapter 3. A summary of the Efficient Transportation Decision Making process to review the planned improvements are also included in this chapter.

Methodology

The Cost Affordable Plan was developed using information from the development of the 2025 Needs Plan and other resources available for the evaluation of the plan. The Plan addresses multimodal transportation improvements for the MPO planning area. The methodology used to develop the 2025 Cost Affordable Plan is summarized in greater detail Figure 8-1.

Figure 8-1: Cost Affordable Plan Methodology



Calculated Cost of the Adopted 2025 Needs Plan & Analyzed Available Financial Resources

The first step to develop the 2025 Cost Affordable Plan was to calculate the cost of the 2025 Adopted Needs Plan. Concurrently with calculating the cost of the Adopted Needs Plan, Financial Resources were analyzed to determine what funding would be reasonably expected to be available for the Cost Affordable Plan. The cost of the Adopted Needs Plan and the available financial resources limits the number of projects that can be deemed cost feasible, as well as the amount of revenue that would need to be added to be able to add additional cost feasible improvements.

The revenues available for the Cost Affordable Plan are summarized in Table 8-1. Additional information concerning these revenues, as well as the assumptions used to develop the available revenues are documented in Chapter 6.

Table 8-1: 2025 Cost Affordable Plan Revenues & Costs

Mode of Travel	Base Revenue (X1,000)	Enhanced Revenue (X1,000)	Costs (X1,000)
FIHS/SIS	\$186,827	\$186,827	\$186,827
State	\$55,297	\$55,297	\$137,522
County (1)	\$199,738	\$430,382	\$371,781
<i>Subtotal - Roads</i>	<i>\$441,862</i>	<i>\$672,507</i>	<i>\$696,131</i>
Public Transportation Capital (2)	\$4,792	\$4,792	\$4,792
Bike / Pedestrian	\$9,926	\$22,070 (3)	\$22,070 (4)
Total Capital	\$456,581	\$699,369	\$722,994
Public Transportation Operations & Maintenance (1)	\$57,451	\$57,451	\$57,451
Total Capital and Operations & Maintenance	\$514,032	\$756,820	\$780,445

- (1) Reflects \$0.3 Million transfer to Public Transportation Capital and \$11.3 Million Transfer to Public Transportation Operations
- (2) Reflects \$0.3 Million transfer from County Gas Tax
- (3) Includes an additional \$10 Million in sales tax over the current and extended sales tax allocation levels for bicycle and pedestrian capital
- (4) Costs assumed to equal revenues; see text.

Prioritized the Adopted Needs Plan

The Adopted Needs Plan was prioritized based on comments received from the Consensus Building Workshops and the MPO Standing Committees to develop the initial cost affordable alternative. The costs for the initial cost affordable alternative were calculated to conclude that the total project costs for this alternative was within 3 percent of the available revenues for the cost affordable plan.

To support the evaluation of the initial cost affordable alternative, a Generalized Level of Service Analysis was performed on this alternative. The procedures used in the analysis are discussed in Chapter 4, and the results of the analysis are available in the Technical Appendix Section 8.

Investigated Additional Revenue Sources

Based on Table 8-1, a shortfall of over \$1.1 billion is forecasted in funding of the Adopted Needs Plan. To reduce this shortfall, additional revenue sources were investigated to be applied to the Cost Affordable Plan. Because of the number of revenue sources that are available and the feasibility of the revenue sources, three funding scenarios were created. The additional revenue assumptions for each funding scenario are displayed in Table 8-2. Each funding scenario built on the previous scenario, so Scenario B included all of Scenario A, and Scenario C included all of Scenarios A and B.

Table 8-2: Funding Scenario Revenue Assumptions for the 2025 Cost Affordable Plan

Additional Funding Source	A	B	C
Extend Sales Tax from 2017 to 2025		✓	✓
Increase Impact Fees		✓	✓
Add Second Local Option Gas Tax			✓

Note: This table represents the items presented to the MPO Board. This does not reflect what was approved by the MPO Board

Update the Network Alternative for each Funding Scenario

Based on the revenues summarized in Table 8-1, additional projects were added to the initial cost affordable alternative to utilize the additional funding. The cost affordable alternatives that were created for the funding scenarios are discussed later in this chapter.

Presented Funding Scenarios and Cost Affordable Plan Scenarios to the MPO Board

The information from Table 8-2 and the resulting revenues were presented to the MPO Committees and the MPO Board along with the cost affordable scenarios that corresponded to the funding scenarios. Based on this meeting, the MPO Board requested that for the cost affordable plan, Funding Scenario C be changed to exclude the Second Local Option Gas Tax and to increase funding from Transportation Impact Fees to cover the remaining shortfall. Table 8-1 presents the resulting enhanced revenues for the Cost Affordable Plan. This table shows an additional \$243 million in revenue compared to the base revenues.



Adopted the 2025 Cost Affordable Plan

The MPO Board formally endorsed the Draft 2025 Cost Affordable Plan on October 26, 2005, thus opening the 45 day public comment period. A summary of the comments received is included in Technical Appendix Section 2G and summarized in the Public Involvement Plan (Chapter 2). The 2025 Cost Affordable Plan was formally adopted on December 14, 2005.

2025 Cost Affordable Plan

2025 Cost Affordable Plan Roadway System

The 2025 Cost Affordable number of lanes and road type is illustrated in Map 8-1, with the improved roads summarized in Table 8-3. Based on the improved roads presented in Map 8-1 and Table 8-3, the Cost Affordable Plan will construct approximately 448 lane miles of road, an increase of 26 percent. Improvements are primarily directed to US 27, and SR 19, the major north-south connectors, and CR 48 and US 441, the major east-west connectors.

Traffic demand on this road network was forecasted using the Central Florida Regional Planning Model along to forecast traffic volumes in the year 2025. Using these volumes, a Generalized Level of Service Analysis was performed on the major road network. Systemwide results of the level of service analysis are summarized in Table 8-4, the Road System Performance Evaluation. This report shows that 60 percent of the vehicle miles of travel countywide are forecasted to be traveled on roads that are performing worse than their adopted level of service standard. Table 8-5 summarizes the performance based on physical capacity, which forecasts approximately 29 percent of the roadway network will operate in a condition of severe congestion. The level of service for the road network is illustrated in Map 8-2. This map shows the forecasted level of service for all of the major roads in the county.

Based on coordination with Florida's Turnpike Enterprise and the Orlando Orange County Expressway Authority (OOCEA), the Wekiva Parkway and SR 46 Realignment are shown as "illustrative" projects since planning and feasibility studies were being conducted concurrent with the development of the Lake-Sumter MPO Cost Affordable plan. These projects have not been determined to be cost feasible, but were expected to be funded at the time when this plan was developed.

Table 8-3: Adopted Cost Affordable Plan Improvements and Funding Sources

	Project Name	Base Road Type	Future Road Type	Total Cost	State Revenues		County Revenues*			Total	Not Funded
					SIS	State-Other	1st LOGT	LOST	TIF		
SIS	SR 91 (SULLIVAN RD -to- ORANGE CO. LINE)	4 Lane Freeway	6 Lane Freeway	\$30,345,139	\$ 30,345,139					\$ 30,345,139	
	SR 25 (US 27) (CR 561A -to- O'BRIEN RD)	4 Lane Divided	6 Lane Divided	\$78,750,807	\$ 78,750,807					\$ 78,750,807	
	SR 46 BYPASS (SR 46 -to- ORANGE COUNTY LINE)	N/A	4 Lane Freeway	\$27,442,277	\$ 27,442,277					\$ 27,442,277	
	WEKIVA PKWY (ORANGE COUNTY LINE -to- SEMINOLE CO)	N/A	4 Lane Freeway	\$45,100,800	\$ 45,100,800					\$ 45,100,800	
State	SR 44 (CR 44 -to- CR 44B)	2 Lane Undivided	4 Lane Divided	\$4,300,051			\$ 262,425	\$ 640,046	\$ 3,397,580	\$ 4,300,051	
	SR 50 (SR 25 (US 27) -to- HANCOCK RD)	4 Lane Divided	6 Lane Divided	\$8,900,295			\$ 543,170	\$ 1,324,774	\$ 7,032,351	\$ 8,900,295	
	SR 500 (US 441) (CR 44A -to- SR 44)	4 Lane Divided	6 Lane Divided	\$9,070,034			\$ 553,529	\$ 1,350,039	\$ 7,166,466	\$ 9,070,034	
	SR 19 (SR 25 (US 27) -to- O)	2 Lane Undivided	4 Lane Divided	\$47,510,597			\$ 2,899,491	\$ 7,071,767	\$ 37,539,340	\$ 47,510,597	
	SR 19 (CR 561 -to- CR 441 (OLD))	4 Lane Divided	6 Lane Divided	\$11,870,579		\$ 11,870,579				\$ 11,870,579	
	SR 19 / CR 561 CONNECTOR (CR 455 -to- CR 455)	N/A	2 Lane Undivided	\$10,866,557			\$ 663,167	\$ 1,617,445	\$ 8,585,945	\$ 10,866,557	
		4 Lanes Divided/Undivided	6 Lane Divided	\$18,879,314		\$ 18,879,314				\$ 18,879,314	
	SR 50 (CR 561 -to- SR 25 (US 27))	4 Lane Divided	6 Lane Divided	\$8,721,827		\$ 8,721,827				\$ 8,721,827	
	SR 500 (US 441) (CR 44B -to- WOLF BRANCH RD)	4 Lane Divided	6 Lane Divided	\$13,139,851		\$ 13,139,851				\$ 13,139,851	
	US 27/US 441 (WEST BOONE CT -to- POLK COUNTY)	4 Lane Divided	6 Lane Divided	\$4,263,353		\$ 2,685,429	\$ 96,298	\$ 234,868	\$ 1,246,758	\$ 4,263,353	
	County	CITRUS TOWER BLVD (SR 25 (US 27) -to- MOHAWK RD)	2 Lane Divided	4 Lane Divided	\$1,380,047			\$ 84,222	\$ 205,415	\$ 1,090,410	\$ 1,380,047
CR 33 (CR 48 -to- CR 470)		2 Lane Undivided	4 Lane Divided	\$1,405,806			\$ 85,794	\$ 209,249	\$ 1,110,763	\$ 1,405,806	
CR 44 (SR 500 (US 441) -to- CR 452)		2 Lane Undivided	4 Lane Divided	\$27,178,415			\$ 1,658,652	\$ 4,045,401	\$ 21,474,362	\$ 27,178,415	
CR 44 (CR 452 -to- SR 44)		2 Lane Undivided	4 Lane Divided	\$10,770,068			\$ 657,279	\$ 1,603,083	\$ 8,509,707	\$ 10,770,068	
CR 460 (CR 468 -to- US 27/US 441)		2 Lane Undivided	4 Lane Divided	\$3,819,912			\$ 233,123	\$ 568,579	\$ 3,018,210	\$ 3,819,912	
CR 466A (SUMTER CO. LINE -to- US 27/US 441)		2 Lane Undivided	4 Lane Divided	\$34,572,474			\$ 2,109,899	\$ 5,145,978	\$ 27,316,597	\$ 34,572,474	
CR 468 (SR 44 -to- CR 460)		2 Lane Undivided	4 Lane Divided	\$3,799,155			\$ 231,856	\$ 565,489	\$ 3,001,810	\$ 3,799,155	
CR 470 (SR 91 -to- SR 25 (US 27))		2 Lane Undivided	4 Lane Divided	\$10,442,618			\$ 637,295	\$ 1,554,343	\$ 8,250,980	\$ 10,442,618	
CR 561 (SR 25 (US 27) -to- CR 561A)		2 Lane Undivided	4 Lane Divided	\$1,307,727			\$ 79,808	\$ 194,650	\$ 1,033,269	\$ 1,307,727	
CRITTEDEN RD (SR 50 -to- SR 33)		N/A	2 Lane Undivided	\$525,776			\$ 32,087	\$ 78,260	\$ 415,429	\$ 525,776	
HANCOCK RD (LAKE LOUISA RD -to- SR 50)		2 Lane Undivided	4 Lane Divided	\$10,183,666			\$ 621,492	\$ 1,515,799	\$ 8,046,375	\$ 10,183,666	
HARTLE RD (HARTWOOD MARSH RD -to- SR 50)		2 Lane Undivided	4 Lane Divided	\$6,328,465			\$ 386,215	\$ 941,967	\$ 5,000,282	\$ 6,328,465	
HOOKS ST (HANCOCK RD -to- HARTLE RD)		N/A	4 Lane Divided	\$3,985,454			\$ 243,225	\$ 593,219	\$ 3,149,009	\$ 3,985,454	
LAKE LOUISA RD (HANCOCK RD -to- SR 25 (US 27))		2 Lane Undivided	4 Lane Divided	\$1,820,958			\$ 111,130	\$ 271,042	\$ 1,438,786	\$ 1,820,958	
N. GRASSY LAKE RD (SR 25 (US 27) -to- TURKEY FARMS R		N/A	4 Lane Divided	\$2,928,894			\$ 178,745	\$ 435,954	\$ 2,314,194	\$ 2,928,894	
SHELL POND RD (SR 25 (US 27) -to- ORANGE CO. LINE)		N/A	4 Lane Divided	\$10,733,743			\$ 655,062	\$ 1,597,676	\$ 8,481,005	\$ 10,733,743	
TURKEY FARMS RD (CR 50 -to- SULLIVAN RD)		N/A	4 Lane Divided	\$7,470,651			\$ 455,921	\$ 1,111,977	\$ 5,902,753	\$ 7,470,651	
CR 439 (SR 44 -to- CR 44A)		2 Lane Undivided	4 Lane Divided	\$4,149,958			\$ 253,265	\$ 617,705	\$ 3,278,988	\$ 4,149,958	
CR 448 (CR 561 -to- ORANGE COUNTY LN)		2 Lane Undivided	4 Lane Divided	\$14,209,080			\$ 867,156	\$ 2,114,966	\$ 11,226,958	\$ 14,209,080	
CR 44A (ESTES RD -to- CR 439)		2 Lane Undivided	4 Lane Divided	\$6,210,667			\$ 379,026	\$ 924,434	\$ 4,907,207	\$ 6,210,667	
CR 44A (LEG) (CR 44 -to- CR 44A)		2 Lane Undivided	4 Lane Divided	\$2,403,727			\$ 146,695	\$ 357,785	\$ 1,899,246	\$ 2,403,727	
CR 455B (FOSGATE RD -to- CR 581)		N/A	4 Lane Divided	\$4,242,849			\$ 258,934	\$ 631,531	\$ 3,352,384	\$ 4,242,849	
CR 466 (CHULA VISTA AVE -to- US 27/US 441)		4 Lane Divided	6 Lane Divided	\$10,641,230			\$ 649,416	\$ 1,583,906	\$ 8,407,908	\$ 10,641,230	
CR 468 (CR 460 -to- CR 466A)		2 Lane Undivided	4 Lane Divided	\$5,517,364			\$ 336,715	\$ 821,238	\$ 4,359,411	\$ 5,517,364	
CR 470 (SUMTER CO. LINE -to- CR 470)		2 Lane Undivided	4 Lane Divided	\$2,539,690			\$ 154,993	\$ 378,023	\$ 2,006,674	\$ 2,539,690	
CR 473 (SR 500 (US 441) -to- CR 44)		2 Lane Undivided	4 Lane Divided	\$10,394,875			\$ 634,381	\$ 1,547,237	\$ 8,213,257	\$ 10,394,875	
CR 48 (SR 25 (US 27) -to- SR 19)		2 Lane Undivided	4 Lane Divided	\$18,319,599			\$ 1,118,014	\$ 2,726,801	\$ 14,474,784	\$ 18,319,599	
CR 48 (N. AUSTIN MERRITT -to- CR 33)		2 Lane Undivided	4 Lane Divided	\$11,764,356			\$ 717,959	\$ 1,751,078	\$ 9,295,319	\$ 11,764,356	
CR 50 (LAKESHORE DR -to- SR 25 (US 27))		N/A	2 Lane Undivided	\$391,930			\$ 23,919	\$ 58,337	\$ 309,674	\$ 391,930	
CR 561 (CR 561A -to- SR 19)		2 Lane Undivided	4 Lane Divided	\$32,282,181			\$ 1,970,126	\$ 4,805,077	\$ 25,506,978	\$ 32,282,181	
CR 561A (CR 561 -to- FOSGATE RD)		2 Lane Undivided	4 Lane Divided	\$8,342,028			\$ 509,100	\$ 1,241,678	\$ 6,591,250	\$ 8,342,028	
EICHELBERGER (SR 19 -to- CR 561)		2 Lane Undivided	4 Lane Divided	\$3,049,288			\$ 186,093	\$ 453,875	\$ 2,409,321	\$ 3,049,288	
FOSGATE RD (TURNPIKE INTERCHANGE RD -to- CR 455 (V		N/A	4 Lane Divided	\$9,472,721			\$ 578,104	\$ 1,409,978	\$ 7,484,640	\$ 9,472,721	
GRASSY LAKE RD (TURKEY FARMS RD -to- SULLIVAN RD)		2 Lane Undivided	4 Lane Divided	\$1,331,079			\$ 81,233	\$ 198,126	\$ 1,051,720	\$ 1,331,079	
HARTLE RD (SHELL POND RD -to- HARTWOOD MARSH RD)		N/A	4 Lane Divided	\$12,118,273			\$ 739,558	\$ 1,803,758	\$ 9,574,958	\$ 12,118,273	
JOHNS LAKE RD (HANCOCK RD -to- HARTLE RD)		N/A	2 Lane Undivided	\$1,763,681			\$ 107,634	\$ 262,517	\$ 1,393,530	\$ 1,763,681	
KURT ST (SR 500 (US 441) -to- GOLF LINKS)		2 Lane Undivided	2 Lane Divided	\$890,020			\$ 54,316	\$ 132,476	\$ 703,228	\$ 890,020	

	Project Name	Base Road Type	Future Road Type	Total Cost	State Revenues		County Revenues*			Total	Not Funded
					SIS	State-Other	1st LOGT	LOST	TIF		
	LAKE GRIFFIN RD (LEMMON ST -to- GRAYS AIRPORT RD)	2 Lane Undivided	4 Lane Divided	\$5,736,875			\$ 350,112	\$ 853,911	\$ 4,532,852	\$ 5,736,875	
	LAKESHORE DR (CRESCENT LN -to- LAKE LOUISA RD)	2 Lane Undivided	2 Lane Divided	\$2,118,070			\$ 129,262	\$ 315,266	\$ 1,673,541	\$ 2,118,070	
	LEMON ST (US 27/US 441 -to- LAKE GRIFFIN RD)	2 Lane Undivided	4 Lane Divided	\$422,935			\$ 25,811	\$ 62,952	\$ 334,172	\$ 422,935	
	N. FRONTAGE RD (START -to- CR 50)	N/A	2 Lane Undivided	\$2,611,135			\$ 159,353	\$ 388,657	\$ 2,063,125	\$ 2,611,135	
	RADIO RD (TREADWAY SCHOOL RD -to- CR 44)	2 Lane Undivided	4 Lane Divided	\$4,710,931			\$ 287,500	\$ 701,204	\$ 3,722,227	\$ 4,710,931	
	RANCH RD (WOLF BRANCH RD -to- SR 44)	N/A	4 Lane Divided	\$7,024,364			\$ 428,685	\$ 1,045,549	\$ 5,550,130	\$ 7,024,364	
	NORTH-SOUTH CORRIDOR (SR 91 -to- US 27/US 441)	2 Lane Undivided	4 Lane Divided	\$39,922,508			\$ 2,436,402	\$ 5,942,309	\$ 31,543,796	\$ 39,922,508	
	ROUND LAKE RD (ORANGE CO. LINE -to- WOLF BRANCH R	2 Lane Undivided	4 Lane Divided	\$5,549,539			\$ 338,679	\$ 826,027	\$ 4,384,833	\$ 5,549,539	
	SULLIVAN RD (GRASSY LAKE RD -to- TURKEY FARMS RD)	N/A	2 Lane Undivided	\$1,483,907			\$ 90,560	\$ 220,874	\$ 1,172,473	\$ 1,483,907	
	TURNPIKE INTERCHANGE RD (TURKEY FARM RD -to- FOS	N/A	6 Lane Divided	\$3,512,020			\$ 83,112	\$ 202,706	\$ 1,076,035	\$ 1,361,853	\$2,150,167 **
Totals	State SIS (State Intra-State Highway System)			\$181,639,023	\$181,639,023					\$ 181,639,023	
	Other State Roads			\$137,522,458		\$ 55,297,000	\$ 5,018,079	\$ 12,238,938	\$ 64,968,441	\$ 137,522,458	
	County Roads			\$371,780,709			\$ 22,557,921	\$ 55,018,061	\$ 292,054,559	\$ 369,630,542	\$2,150,167
	Total			\$690,942,190	\$181,639,023	\$ 55,297,000	\$ 27,576,000	\$ 67,257,000	\$ 357,023,000	\$ 688,792,023	\$2,150,167

Notes:

* County funding can be used interchangeably among projects

** Developer contribution

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Lake - Sumter MPO

2025 Long Range Transportation Plan

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

Alignment to be determined

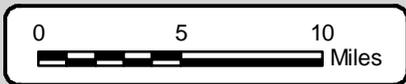
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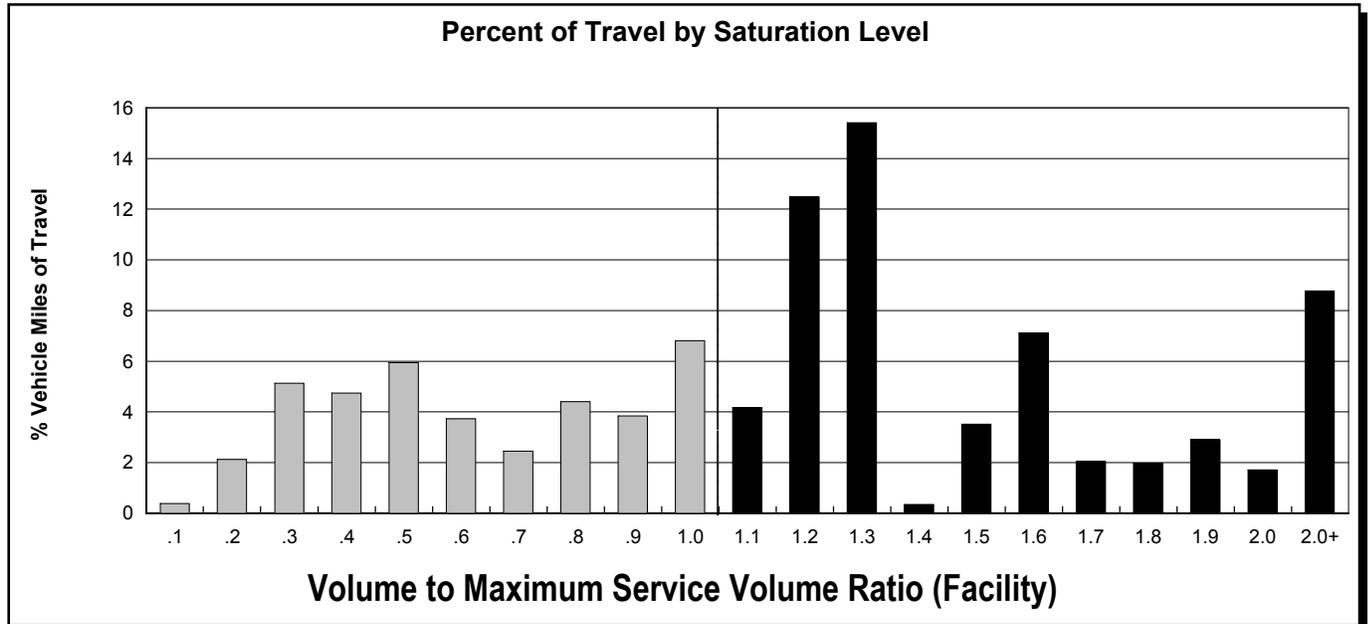
		NUMBER OF LANES			
		2	3	4	6
ROAD TYPE	One-Way	---			
	Undivided	—	—	—	—
	Divided	—	—	—	—
	Freeway	—	—	—	—

New or Expanded Roads
 SR 46 Bypass
 Wekiva Parkway
 Alignments of new roads to be determined.



Map 8-1
 2025 Cost Affordable Plan
 Number of Lanes & Road Type

Table 8-4 Road System Performance Evaluation 2025 Cost Affordable Plan - Based on Physical Capacity



Percent of VMT with V/MSV Ratio Greater than 1.0: 60.43%

Based on: Maximum Service Volume

Roadway Type	V/MSV Ratio	VMT	% VMT Below STD.	VMC
All Roads	1.2588	663,916	60.43	1,613,543
All State Roads	1.5873	440,399	83.11	524,469
Intrastate Roads (Interstate Only)	1.1679	64,771	100.00	98,791
Intrastate Roads (Non-Interstate Only)	1.4190	89,697	84.94	124,824
Other State Roads	1.7351	285,931	78.71	300,854
County Roads	0.6116	223,517	15.73	1,089,073
All Other Roads	0.0000	0	0.00	0

Definition of Terms:

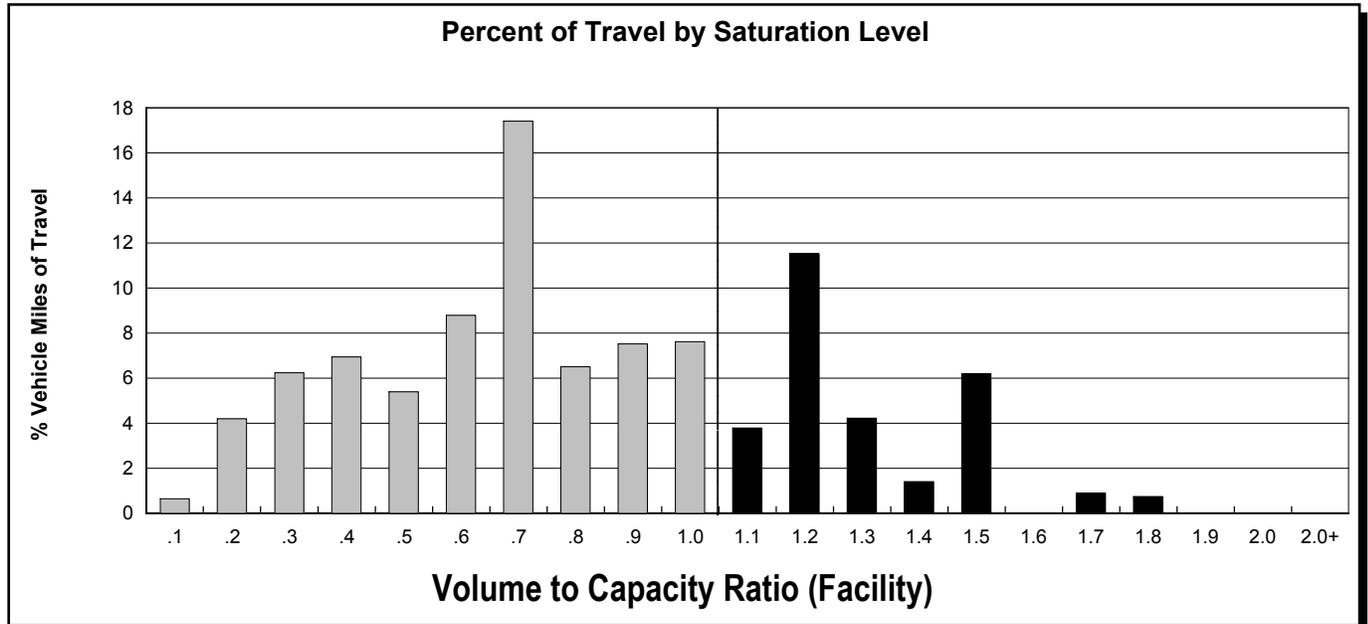
V/MSV Ratio: Volume to Maximum Service Volume Ratio

VMT: Vehicle Miles of Travel

% VMT Below STD: The percentage of Vehicle Miles of Travel where Volume to Maximum Service Volume (V/MSV) => 1

VMC: Vehicle Miles of Capacity

Table 8-5 Road System Performance Evaluation 2025 Cost Affordable Plan - Based on Physical Capacity



Percent of VMT with V/C Ratio Greater than 1.0: 28.76%
Based on: Physical Capacity

Roadway Type	VC Ratio	VMT	% VMT With V/C>1	VMC
All Roads	0.7755	663,916	28.76	1,613,543
All State Roads	0.9250	440,399	39.42	524,469
Intrastate Roads (Interstate Only)	0.6586	64,771	0.00	98,791
Intrastate Roads (Non-Interstate Only)	0.7634	89,697	6.74	124,824
Other State Roads	1.0361	285,931	58.61	300,854
County Roads	0.4807	223,517	7.76	1,089,073
All Other Roads	0.0000	0	0.00	0

Definition of Terms:

VC Ratio: Volume to Capacity Ratio
VMT: Vehicle Miles of Travel
% VMT With V/C>1: The percentage of Vehicle Miles of Travel where Volume to Capacity Ratio (VC Ratio) > 1
VMC: Vehicle Miles of Capacity

Lake - Sumter MPO

2025 Long Range Transportation Plan

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Alignment to be determined

SUMTER

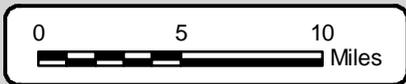
ORANGE

SEMINOLE

POLK

LEGEND

- LOS Not Calculated
- LOS A
- LOS B
- LOS C
- LOS D
- LOS E
- LOS F
- SR 46 Bypass
- Wekiva Parkway



Map 8-2
2025 Cost Affordable Plan
Level of Service





2025 Cost Affordable Plan Goods Movement

Goods movement in the Lake-Sumter MPO area is primarily served by the State Road System. These roads are forecasted to function worse than the overall road system. Based on Table 8-5, 83 percent of the vehicle miles of travel on these roads are forecasted to operate below standard, and 28 percent of the vehicle miles of travel are forecasted to operate with a volume to physical capacity ratio greater than 1.0.

2025 Cost Affordable Plan Multi-Modal System

The multi-modal system for the county includes three components: Transit, Pedestrian facilities, and Bicycle facilities.

SAFETEA-LU placed an increased emphasis on multimodal capacity and regionalism. The Lake~Sumter MPO 2025 LRTP is a multimodal plan that includes bicycle/pedestrian and transit projects, including multi-use trails and fixed route bus service. In addition, the MPO has a strong desire to expand its multimodal nature and will consider such ideas as bringing commuter rail from Orlando to Tavares, working with the Leesburg International Airport to commence commercial passenger flights, and bringing water taxi to Mount Dora, Tavares, Eustis and Leesburg through the Chain of Lakes. As for regionalism, the LRTP development was based on the Central Florida Regional travel demand model. Further, the MPO promotes regionalism through participation with the Central Florida MPO Alliance, where regional roadway corridors are prioritized for future State funding.

Transit Improvements

No operating fixed-route transit service in Lake County is provided in Lake County as of 2005. Based on the Transit Development Plan, Lake County plans to provide fixed route transit service on five routes. Also, the Central Florida Regional Transit Authority, or LYNX, will extend two routes into Lake County as a cooperative regional effort. These transit routes are illustrated on Map 8-3. This 2025 Cost Feasible Plan fully funds the implementation and continued operation of these transit routes. Table 8-6 summarizes the costs of transit operations and maintenance for the years 2011 to 2025.



Pedestrian Improvements

The sidewalk plan was developed by developing an inventory of the existing sidewalks in 2000 and comparing them to the roadways in the urbanized area. It is expected that any roadway projects constructed as Existing + Committed improvements or in the Cost Affordable Roadway Plan in the urbanized area will include the construction of sidewalks. The additional sidewalk facilities are illustrated in Map 8-4. Table 8-7 includes the cost of the pedestrian facility improvements in the Cost Affordable Plan. The Cost Affordable Plan includes 100,000 per year of boxed funds to be used for the construction of bicycle, pedestrian, and multi-use trail improvements.

Bicycle Facility Improvements

The bicycle facilities plan was developed by developing an inventory of the existing bicycle facilities in 2000, and with the assumption that bicycle facilities, whether it be on-street bike lanes or a paved shoulder, will be constructed with any the Existing + Committed roadway improvement and with improvements in the Cost Affordable Roadway Plan. The bicycle facilities are illustrated on Map 8-5. The cost of the bicycle facility improvements are included in Table 8-7. The Cost Affordable Plan includes 100,000 per year of boxed funds to be used for the construction of bicycle, pedestrian, and multi-use trail improvements.

SAFETEA-LU requires the inclusion of proposed transportation and transit enhancement activities in the LRTP. The Lake~Sumter MPO 2025 LRTP includes transit and bicycle/pedestrian enhancement projects. The MPO is currently seeking Surface Enhancement (SE) funds for several trail projects, including for the South Lake Trail, Tav-Lee Trail, Fruitland Park Trail and Lady Lake Trail. The MPO will be updating its Transit Development Plan (TDP) to include a 10-year planning horizon by September 2008.

Lake County also has an extensive Rails-to-Trails program and has funded the construction of the proposed Rails-to-Trails path illustrated on both Maps 8-4 and 8-7, and supporting, where possible, constructing the Candidate Rails-to-Trails projects illustrated on Maps 8-4 and 8-5. The costs of the multi-use trails are included in Table 8-7. The Cost Affordable Plan includes 100,000 per year of boxed funds to be used for the construction of bicycle, pedestrian, and multi-use trail improvements.

Table 8-6: Transit Operating and Maintenance Costs, 2011 to 2025

Category	Cost (X1,000)
Operating Costs	\$55,727
Maintenance Costs	\$4,649
TOTAL	\$60,376

Table 8-7: Pedestrian, Bicycle, and Multi-Use Trail Costs, 2011 to 2025

Category	Cost (X1,000)
Pedestrian	\$0
Bicycle Facilities	\$0
Multi-Use Trails *,**	\$11,466
Boxed Funds ***	\$10,604
TOTAL	\$22,070

Notes:

Roadway improvement projects in urbanized areas include sidewalks and bicycle facilities in the roadway improvement costs. Roadway improvement projects in rural areas include bicycle facilities in the roadway improvement costs

* Costs to include multi-use trails along SR 46 and Wekiva Parkway are expected to be included in the construction costs for those projects

** Includes Proposed Rails-to-Trails Projects

*** These can be allocated to sidewalks, bicycle facilities, and multi-use trails as prioritized by the MPO at a later date

Lake - Sumter MPO

2025 Long Range Transportation Plan

FLAGLER

VOLUSIA

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Alignment to be determined

SUMTER

ORANGE

POLK

LEGEND

-  Lynx 55 Extension (US 192)
-  New Lynx Route (SR 50)
-  Mall West
-  Mid-County Mall East
-  Leesburg
-  Eustis
-  Golden Triange
-  Lady Lake
-  SR 46 Bypass
-  Wekiva Parkway



Map 8-3
2025 Cost Affordable Plan
Transit Routes



Lake - Sumter MPO

2025 Long Range Transportation Plan

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

Alignment to be determined

SUMTER

POLK

LEGEND

-  Existing Rails-to-Trails
-  Proposed Rails-to-Trails
-  Candidate Rail-to-Trail Projects
-  Existing & Planned Sidewalks
-  Cost Affordable Plan Improvements
-  SR 46 Bypass
-  Wekiva Parkway



Map 8-4
2025 Cost Affordable Plan Sidewalks



Lake - Sumter MPO

2025 Long Range Transportation Plan

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SEMINOLE

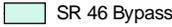
ORANGE

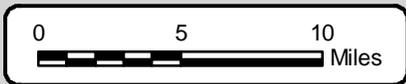
Alignment to be determined

SUMTER

POLK

LEGEND

-  Existing Rails-to-Trails
-  Proposed Rails-to-Trails
-  Candidate Rail-to-Trail Projects
-  Existing & Planned Bicycle Facilities
-  Cost Affordable Plan Improvements
-  SR 46 Bypass
-  Wekiva Parkway



Map 8-5
2025 Cost Affordable Plan
Bicycle Plan



Goals Attainment for the 2025 Cost Affordable Plan

As summarized in Table 8-8, many parts of the Long Range Transportation Plan and the Cost Affordable Plan were designed to specifically meet the goals of the Long Range Transportation Plan. More information on the Goals and Objectives for the Long Range Transportation Plan are included in Chapter 3 of this document.

Table 8-8: Cost Affordable Goals Attainment

<i>GOAL 1: Provide a multi-modal transportation system that serves the local and regional movement of and connections among people, jobs, goods, and services.</i>
In the Cost Affordable Plan, transit needs are fully funded, including 5 Lake County routes and 2 LYNX Routes
With every road project, sidewalks and bicycle facilities are constructed as part of the project as appropriate
Funding is set aside in addition to the base funding to support bicycle and pedestrian projects, including Rails-to-Trails projects
<i>GOAL 2: Provide a transportation system that is safe for residents, visitors and businesses</i>
Lake County has developed a Crash Data Management System to identify high crash locations
<i>GOAL 3: Preservation of Lake and Sumter Counties' investment in transportation in a cost-feasible manner.</i>
Lake County is currently in the early stages of developing a corridor preservation plan to identify corridor needs in the future.
There is provision in the cost and revenue projections for maintenance of roadways
<i>GOAL 4: A transportation system that is coordinated and consistent with current and future agency plans of Lake and Sumter Counties, its communities and neighbors.</i>
The Lake-Sumter MPO Board and Committees include representatives from the local governments, their planning departments, and their citizens
Lake-Sumter MPO was involved in district-wide coordination meetings that included representatives from Florida DOT District 5 and all area Metropolitan Planning Organizations and Transportation Planning Organizations
<i>GOAL 5: An aesthetically pleasing transportation system which minimizes impact on the social resources, communities, and the natural and built environment.</i>
The Cost Affordable Plan includes the Efficient Transportation Decision Making process, which is designed to identify environmental, social, and archaeological impacts from projects identified in the plan
The Long Range Transportation Plan Process included two Consensus Building Workshops and three discussion group workshops
Two discussion group workshops were used to identify impacts to minorities, Hispanic populations, and low-income populations.

Intelligent Transportation Systems

Intelligent Transportation Systems, or ITS, represents the application of advanced data monitoring and communications to enhance the functionality and capacity of the transportation infrastructure. While specific ITS applications are beyond the scope of this Long Range Transportation Plan, FDOT has specifically planned for some ITS applications in their ITS 10 Year Plan, and the MPO will address ITS through the implementation of its Congestion Management System process.

SAFETEA-LU has changed the terminology from “Congestion Management System (CMS)” to “Congestion Management Process (CMP),” placing more emphasis on operations, and requiring a metropolitan-wide strategy to address congestion. In anticipation of Transportation Management Area (TMA) designation after the 2010 Census, the Lake~Sumter MPO intends to soon develop a CMP for Lake and Sumter Counties. Early steps will include the development of a congestion database for each County including all major roadway segments, their current traffic counts, any reserved trips, facility types, and service volumes. These traffic databases will be used to assist MPO staff, Committees and the Board in the project prioritization process, as well as with an effort to create a countywide transportation concurrency management system/data clearinghouse for Lake County. The MPO will be open to working with Sumter County on a similar system, as well.

Currently, one major ITS application in the MPO area is electronic toll collection used on the Florida Turnpike. Based on the FDOT ITS 10 Year Plan, the Turnpike will also add additional video surveillance and vehicle detection systems throughout the Turnpike including portions in Lake and Sumter Counties.

It is expected that the Wekiva Parkway and portions of the SR 46 Bypass will support the SunPass automated toll collection system on the tolled portions of these roadways. Additional ITS projects may be funded using operational funding resources.

SAFETEA-LU increased the emphasis on operational and management strategies. Still being a new agency, in new urbanized areas, the Lake~Sumter MPO will work with its member governments to commence development of such strategies, placing an increased emphasis on Intelligent Transportation System (ITS). The MPO will work with FDOT and Lake and Sumter Counties to enhance intersection operations, with the use of signal optimization, coordination and synchronization. As these efforts progress, the MPO will initiate a Management and Operations Subcommittee to the Technical Advisory Committee (TAC) to more monitor these types of needs and to develop funding strategies. Upon designation as a TMA, additional funding sources, such as XU funds, will be made available to the MPO for such projects.

Travel Demand Management

Travel Demand Management (TDM) can provide additional mobility alternatives and reduce traffic congestion and pollution through strategies designed to shape the use of roadways. The primary strategies of TDM feasible for the Lake-Sumter MPO area include:

- Increasing Vehicle Occupancy
- Alternative Work Hours
- Telecommuting

This section includes a description of the major components of each TDM strategy and how it applies to Lake and Sumter Counties.

Increasing Vehicle Occupancy

There are several strategies that can be employed to increase vehicle capacity. These strategies include:

- Carpooling
- Vanpooling
- Employer Transportation Coordinators
- High Occupancy Vehicle (HOV) Lanes
- CBD Parking Management

Carpooling and Vanpooling are defined as two or more occupants in a vehicle. This can be a group of friends or neighbors carpooling to save gas or share parking costs, a group of employees through the assistance of Employer Transportation Coordinators, or through a metropolitan area Rideshare service. The Central Florida Regional Transportation Authority, or Lynx, currently operates an organized carpool/vanpool program where they provide a vehicle for a monthly fee that covers maintenance and insurance for a van that can be used daily for vanpooling to work. Joining or creating a Vanpool through this site can be undertaken by neighbors, friends, or Employer Transportation Coordinators.

While Employer Transportation Coordinators would organize Carpools and Vanpools, they can also utilize the Lynx Bus Pass Consignment Service. This makes it easy for employers to provide incentives to use transit as their mode of travel to and from work. This option is available for establishments along the Lynx routes. A similar service can be used in Lake County.

High Occupancy Vehicle lanes are lanes that are striped or separated from the roadway for use by vehicles that have 2, 3, or more occupants. This promotes carpooling by allowing carpoolers to use a special lane(s) that normally operate at a better level of service than the surrounding lanes. More developed HOV implementations can include separate entrance and exit ramps for HOV lanes. These implementations will normally maintain a barrier-separated HOV lane system, which can provide incentives to carpoolers in the case of a traffic incident on the normal traffic lanes. Limited success has been observed with implementation of HOV lanes in the region, primarily on I-4 to the south and west of Lake County.

To work in tandem with HOV lanes and Carpooling/Vanpooling, parking can be managed in a CBD area at a high cost to encourage Carpooling and Vanpooling. However, this strategy only works in large central cities, which makes its application in Lake and Sumter Counties potentially less effective.

Alternative Work Hours

Alternative work hours include programs where employers allow employees to begin and end work at alternative times. This provides benefits to employers because they can alleviate localized traffic problems for large offices, and they can also coordinate work efforts among different offices in different time zones easier. This option is best utilized when traffic in an area has a short duration of congestion. Employees can benefit from this because they spend less time in traffic, and the flexibility can reduce personal schedule conflicts.

Alternative work hours can include:

- Flex Time - Flex time is where employees would be allowed to flex their arrival and departure times to their workplace. Many companies that provide this benefit require employees to be in the office between certain hours, from 8:30 AM to 3:00 PM, for example, and require them to be in the office for a certain time period, such as 8 hours.
- Compressed Work Week - A Compressed Work Week is where employees would work a normal work week in fewer days, such as working four 10 hour days instead of five 8 hour days.
- Staggered Hours - Staggered hours is where arrival and departure times for groups in a company are staggered so that everyone is not entering and leaving at the same time. This technique is most effective for very large companies or companies in very congested locations.

Alternative work hours is not a TDM technique that is easy for a government to implement without the cooperation of major employers. Governments can maintain alternative work hour programs, however, and can provide information to companies that request it.

Telecommuting

Telecommuting is a technique that allows employees to work from home during hours that otherwise may require a commute trip. This can be most effective when an employment activity does not need to be performed at a fixed location. This technique requires coordination between the employer and employee, since employees need to have the necessary equipment to work at home, such as a computer, telephone, sometimes a fax machine or a printer, and software. The employer needs to have network systems in place to for employees to be able to work off-site, such as Virtual Private Networking, or VPN, which allows employees to connect to their office network through the Internet, and remote access to email. The employer may also need to maintain policies that reduce or eliminate the possibility of sensitive information being compromised.

Efficient Transportation Decision Making

The Efficient Transportation Decision Making (ETDM) Process creates an association between transportation and environmental resource planning initiatives through full and early participation between multiple agencies. This early participation that involves interactive agency involvement is expected to improve the decision making process as well as provide a forum for dispute resolution. As a result, ETDM will allow an opportunity to greatly reduce the time, effort and cost to effect transportation decisions. Efficiency is gained by two screening events, the planning and programming screens, which are built into the current transportation planning process. An Environmental Technical Advisory Team (ETAT), which consists of planning, regulatory and resource protection agencies, has been established with an appointed representative from each agency with the responsibility to coordinate transportation reviews within their respective agency.

As a part of the planning phase of the ETDM process the Environmental Screening Tool (EST) was used to generate analyses on environmental and socio-cultural issues. The EST was used to evaluate the potential project effects of candidate projects. The EST is an important application to the ETDM process because it allows agency participation and community involvement throughout the ETDM process. This application provides tools to:

- Input and update information about transportation projects
- Perform standardized analyses
- Gather and report comments about potential project effects
- Provide information to the public

This application brings together information about a project and provides analytical and visualization tools that help combine and communicate that information.



The evaluation of the potential projects using the EST was one criterion in the project prioritization process contributing to the identification of cost feasible projects throughout the Metropolitan Planning Organization (MPO) area. The following methodology describes how each of the eleven resources was measured in terms of defining potential environmental effects of candidate projects. Each candidate project in the Needs Assessment was evaluated for potential impacts to each of the eleven resource issues.

The list of natural and/or sociocultural resources that were evaluated is listed in Table 8-9 along with a description of the resource.

SAFETEA-LU requires a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan. The ETDM Process is used to identify these potential environmental and socio-cultural mitigations through the use of the EST. ETDM allows early identification of these environmental issues and assists with the permitting process. Several projects from the Lake~Sumter MPO 2025 Long Range Transportation Plan have undergone an ETDM Planning Screen, including US 441, SR 19, SR 40, SR 44 (formerly CR 44B) and SR 50. In coordination with the Florida Department of Transportation, District 5, the MPO will continue to send new projects from the 2025 LRTP through the planning screen.

Table 8-9: ETDM Resource Effect Evaluation

Resource	Basis for potential effect	Types	Determination of Effect
Contaminated Sites	Total Number of Sites Identified Within 500 Feet of the Project Corridor	<ul style="list-style-type: none"> • Petroleum Tanks • Solid Waste Facilities • Superfund Hazardous Waste Sites • Toxic Release Inventory Sites • Gasoline Stations • Hazardous Waste Sites • National Priority List Sites 	Total Number of Sites Within the Buffer Area
Farmlands	Acreage of Farm Land Within 500 Feet of the Project Corridor	<ul style="list-style-type: none"> • Prime Farm Land 	Total Acreage
Floodplains	Total Acreage of Floodplains Identified Within 500 Feet of the Project Corridor	<ul style="list-style-type: none"> • FEMA Flood Insurance Rate Maps 1996 • Special Flood Hazard Areas 	Total Acreage
Historic and Archaeological	Total Number of Sites Within 500 Feet of the Project Corridor	<ul style="list-style-type: none"> • Florida Site File Historic and Archaeological Sites • Florida Site File Cemeteries • Florida Site File Historic Standing Structures • National Register of Historic Places 	Total Number of Sites
Infrastructure	Total Number of Sites Within 500 Feet of the Project Corridor	<ul style="list-style-type: none"> • Sewage Treatment Facilities • Water Treatment Facilities • Federal Aviation Administration Obstructions 	Total Number of Sites
Recreation Areas	Total Acreage of the Recreation Areas Within 500 Feet of the Project Corridor	<ul style="list-style-type: none"> • Florida State Parks • Short Trails and Overlooks • Greenway Ecological Priority Linkages 	Total Acreage

Source: Florida ETDM



Each project was characterized as having potentially high, moderate or low effects to the natural and/or socio-cultural environment during the project development phase. Minimal potential impacts suggest that there is a high probability for avoiding or minimizing impacts to environmental resources. Moderate potential impacts indicate that there is a high probability for minimizing potential impacts to environmental resources. Substantial potential impacts suggest that environmental mitigation measures may be needed. A comprehensive approach was utilized to ensure that no potential resources were overlooked.

Table 8-10 lists the categorization of potential effects for each identified environmental resource followed by a description of how each issue was considered in the environmental evaluation.

The series of long range transportation plans that included this Lake-Sumter MPO Long Range Transportation Plan were the first to integrate the ETDM component into the planning process. The timing and content of the ETDM has continued to evolve during the development of this transportation plan. Results from the initial screening of projects from the Long Range Transportation Plan were not available at the time when the adopted plan was documented. Future submittals and results of the ETDM screening process will be included in the ongoing planning activities of the MPO and future amendments to the transportation plan as appropriate.

Table 8-10: Resources, Measures, and Potential Effects

Resource	Resources Measured	Potential Effects
Contaminated Sites	Less than 5 sites	Minimal
	Between 5 and 10 sites	Moderate
	Greater than 10 sites	Substantial
Farmlands	Less than 5 acres	Minimal
	Between 5 and 10 acres	Moderate
	Greater than 10 acres	Substantial
Floodplains	Less than 5 acres	Minimal
	Between 5 and 10 acres	Moderate
	Greater than 10 acres	Substantial
Historic and Archaeological	Less than 5 sites	Minimal
	Between 5 and 10 sites	Moderate
	Greater than 10 sites	Substantial
Infrastructure	Less than 5 sites	Minimal
	Between 5 and 10 sites	Moderate
	Greater than 10 sites	Substantial
Recreation Areas	Less than 5 acres	Minimal
	Between 5 and 10 acres	Moderate
	Greater than 10 acres	Substantial
Section 4(f)	No Sites	Minimal
	Sites Present	Substantial
Special Designations	Less than 5 acres	Minimal
	Between 5 and 10 acres	Moderate
	Greater than 10 acres	Substantial
Water Quality and Quantity	Total Maximum Daily Loads Absent	Minimal
	Total Maximum Daily Loads Present	Substantial
Wetlands	Less than 5 acres	Minimal
	Between 5 and 10 acres	Moderate
	Greater than 10 acres	Substantial
Wildlife and Habitat	Determined on an individual project basis	Minimal
		Moderate
		Substantial

Source: Florida ETDM

2015 Interim Year Plan

The 2015 Interim Year Plan is a subcomponent of the overall 2025 Cost Affordable Plan and was developed in a similar fashion to the 2025 Plan, where the 2025 Cost Affordable Plan was prioritized based on the MPO Priority Projects and comments received from the public. This plan used the revenues that were approved by the MPO Board and adjusted to the year 2015. The number of lanes and road type for the Interim Year Plan are illustrated in Map 8-6. The improvements from 2011 to 2015 are also summarized in Table 8-11. This plan was not input into a travel demand model, and therefore performance information is not available.

Table 8-11: 2015 Interim Year Plan Projects

	Project Name	Base Road Type	Future Road Type	Total Cost
SIS	SR 91 (SULLIVAN RD -to- ORANGE CO. LINE)	4 Lane Freeway	6 Lane Freeway	\$50,345,139
State	SR 44 (CR 44 -to- CR 44B)	2 Lane Undivided	4 Lane Divided	\$4,300,051
	SR 50 (SR 25 (US 27) -to- HANCOCK RD)	4 Lane Divided	6 Lane Divided	\$8,900,295
	SR 500 (US 441) (CR 44A -to- SR 44)	4 Lane Divided	6 Lane Divided	\$9,070,034
County	CITRUS TOWER BLVD (SR 25 (US 27) -to- MOHAWK RD)	2 Lane Divided	4 Lane Divided	\$1,380,047
	CR 33 (CR 48 -to- CR 470)	2 Lane Undivided	4 Lane Divided	\$1,405,806
	CR 44 (SR 500 (US 441) -to- SHADY ACRES RD)	2 Lane Undivided	4 Lane Divided	\$27,178,415
	CR 44 (CR 452 -to- SR 44)	2 Lane Undivided	4 Lane Divided	\$10,770,068
	CR 460 (CR 468 -to- US 27/US 441)	2 Lane Undivided	4 Lane Divided	\$3,819,912
	CR 466A (SUMTER CO. LINE -to- US 27/US 441)	2 Lane Undivided	4 Lane Divided	\$34,572,474
	CR 468 (SR 44 -to- CR 460)	2 Lane Undivided	4 Lane Divided	\$3,799,155
	CR 470 (SR 91 -to- SR 25 (US 27))	2 Lane Undivided	4 Lane Divided	\$10,442,618
	CR 561 (SR 25 (US 27) -to- CR 561A)	2 Lane Undivided	4 Lane Divided	\$1,307,727
	CRITTEDEN RD (SR 50 -to- SR 33)	N/A	2 Lane Undivided	\$525,776
	HANCOCK RD (LAKE LOUISA RD -to- SR 50)	2 Lane Undivided	4 Lane Divided	\$10,183,666
	HARTLE RD (HARTWOOD MARSH RD -to- SR 50)	2 Lane Undivided	4 Lane Divided	\$6,328,465
	HOOKS ST (HANCOCK RD -to- HARTLE RD)	N/A	4 Lane Divided	\$3,985,454
	LAKE LOUISA RD (HANCOCK RD -to- SR 25 (US 27))	2 Lane Undivided	4 Lane Divided	\$1,820,958
	N. GRASSY LAKE RD (SR 25 (US 27) -to- TURKEY FARMS RD)	N/A	4 Lane Divided	\$2,928,894
	SHELL POND RD (SR 25 (US 27) -to- ORANGE CO. LINE)	N/A	4 Lane Divided	\$10,733,743
TURKEY FARMS RD (CR 50 -to- SULLIVAN RD)	N/A	4 Lane Divided	\$7,470,651	
Totals	State SIS (State Intra-State Highway System)			\$50,345,139
	Other State Roads			\$22,270,380
	County Roads			\$138,653,829
	Total			\$211,269,348

Cost Affordable Alternatives

As part of the Cost Affordable Plan Development Process, 4 alternative scenarios were evaluated for the year 2025. These alternatives are summarized in this section, and detailed information can be found in the Technical Appendix Section 8.

The first alternative, the Initial Cost Affordable Alternative, consisted of a base-revenues situation where no additional revenues were pursued. The number of lanes and road type for this alternative is illustrated in Map 8-7. The forecasted level of service for this alternative is illustrated in Map 8-8.

An additional alternative, alternative 2, was created based on public input on the first alternative and to provide an initial cost affordable that uses all available enhanced revenues. The number of lanes and road type for this alternative is presented in Map 8-9. This alternative was not input into a travel demand model, so performance information is not available.

The final three alternatives, Alternatives 3A, 3B, and 3C included additional revenue options. These alternatives were not input into the travel demand model, so performance information is not available. Map 8-10 presents the number of lanes and road type for all three alternatives. All of the alternatives build on the prior alternative; in the order of A being the lowest cost and revenue alternative to C being the highest cost with the most enhanced revenue options.

Lake - Sumter MPO

2025 Long Range Transportation Plan

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

SUMTER

POLK

Alignment to be determined

LEGEND

		NUMBER OF LANES			
		2	3	4	6
ROAD TYPE	One-Way	---			
	Undivided	—	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■
	Divided	—		■ ■ ■ ■	■ ■ ■ ■
	Freeway			■ ■ ■ ■	■ ■ ■ ■

- New or Expanded Roads 2011-2015
- Planning or Engineering Study
- SR 46 Bypass
- Wekiva Parkway



Map 8-6
2015 Interim Year Plan
Number of Lanes & Road Type



Lake - Sumter MPO

2025 Long Range Transportation Plan

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

Alignment to be determined

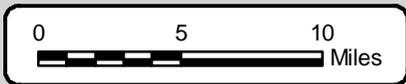
SUMTER

POLK

LEGEND

		NUMBER OF LANES			
		2	3	4	6
ROAD TYPE	One-Way	---			
	Undivided	—	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■
	Divided	—		■ ■ ■ ■	■ ■ ■ ■
	Freeway			■ ■ ■ ■	■ ■ ■ ■

- New or Expanded Roads 2011-2015
- Planning or Engineering Study
- SR 46 Bypass
- Wekiva Parkway



Map 8-7
 2025 Cost Affordable Alternative 1
 Number of Lanes & Road Type



Lake - Sumter MPO

2025 Long Range Transportation Plan

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

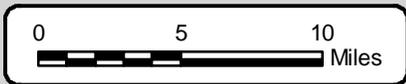
Alignment to be determined

SUMTER

POLK

LEGEND

- LOS Not Calculated
- LOS A
- LOS B
- LOS C
- LOS D
- LOS E
- LOS F



Map 8-8

2025 Cost Affordable Alternative 1
Level of Service

Lake - Sumter MPO

2025 Long Range Transportation Plan

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

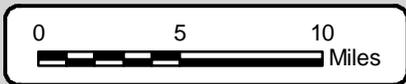
SUMTER

POLK

LEGEND

		NUMBER OF LANES			
		2	3	4	6
ROAD TYPE	One-Way	-----			
	Undivided	—	—	—	—
	Divided	—	—	—	—
	Freeway	—	—	—	—

- New or Expanded Roadways
- SR 46 Bypass
- Wekiva Parkway



Map 8-9

2025 Cost Affordable Alternative 2
Number of Lanes & Road Type



Lake - Sumter MPO

2025 Long Range Transportation Plan

FLAGLER

VOLUSIA

MARION

SEMINOLE

ORANGE

SUMTER

POLK

Alignment to be determined

LEGEND

ROAD TYPE	NUMBER OF LANES			
	2	3	4	6
One-Way	---	---	---	---
Undivided	—	—	—	—
Divided	—	—	—	—
Freeway	—	—	—	—

- Cost Affordable 3A
- Cost Affordable 3B
- Cost Affordable 3C
- SR 46 Bypass
- Wekiva Parkway



Map 8-10

2025 Cost Affordable Alternatives Improvement Alternatives





Chapter 9: Findings And Recommendations

The adoption of the Lake~Sumter Metropolitan Planning Organization (MPO) 2025 Long Range Transportation Plan (LRTP) on December 14, 2005 marks the first plan completed since the MPO was formed in 2003. The development of the 2025 LRTP has been a significant learning experience for the public, the local political leaders, and technical staff, including the MPO personnel. One of the benefits of conducting the plan is the identification of other activities, analyses, or plans that can improve transportation planning for the two counties, following the adoption of the transportation plan. These activities exceeded the scope of services or time available for the LRTP. The following is a summary of topics that should be considered for future implementation or evaluation. These recommendations are not provided in order of importance, nor priority.

Include all of Sumter County into the MPO Planning Area

Only a small portion of Sumter County, including, primarily, The Villages Development of Regional Impact (DRI), was incorporated into the MPO's planning area during MPO formation in 2003, and, thus, the 2025 LRTP. Overall, this small area of Sumter County has an established roadway network and existing land uses that are not likely to change. Significant growth is expected to occur in adjacent and other areas inside Sumter County. In addition, it was difficult during the plan development to adequately address financial resources (revenues and spending) for such a limited area of Sumter County. Expanding the MPO study area to include all of Sumter County would be of significant benefit to the transportation planning process in Sumter County and would also enable better regional approaches to transportation issues between US 27 and US 301.

Update Financial Resources and Transportation Plan Prior to July 1, 2007 To Address SAFETEA-LU, SIS, and SB 360 Implications to the Plan

Federal and State legislation took place during the development of the Lake~Sumter MPO 2025 LRTP that have the potential to significantly impact the content of the transportation plan. This includes the adoption of the Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and the passage of Senate Bill (SB) 360. Neither of these legislative actions provided appropriate administrative guidance nor documentation of funding implications so that they could be completely addressed in the adopted plan. Attempts were made during the development of this plan to address SAFETEA-LU Planning Factors and funding implications from the Strategic Intermodal System (SIS) and SB 360 to minimize the extent of the changes that will be required to the adopted plan. Additional guidance has been provided since the adoption of this plan and the completion of this report.



Currently the SAFETEA-LU legislation is being implemented through proposed rule-making that has yet to take effect.

In coordination with FHWA and FDOT, the Lake~Sumter MPO 2025 LRTP has been reviewed for compliance with SAFETEA-LU. The LRTP has been revised and was amended at the May 23, 2007 MPO Board Meeting.

Annual Existing Conditions Analysis Report to the MPO Board

The MPO staff should prepare an annual report to the public, the MPO Board, and participating local governments on the status of the transportation network. This annual report should include summaries of the performance of the transportation network by system (i.e., State, County, etc.). This annual report should also evaluate the status of transportation funding and its adequacy to address growth and expanding transportation needs, as well as significant transportation improvement projects that have started, or were completed, during the reporting period. This annual report card will serve as a comprehensive summary of the state of transportation in Lake and Sumter Counties.

Improve Regional Timing of Plan Development and Adoption

Lake and Sumter Counties are part of a larger Orlando greater metropolitan area. Lake County, particularly, is a viable housing option for workers in Orange, Seminole, and Osceola Counties. This Lake~Sumter MPO LRTP was one of the first to make use of a regional transportation forecasting planning model through the implementation of the Florida Department of Transportation (FDOT), District Five's Central Florida Regional Planning Model, Version 4 (CFRPM-IV). This was a significant development; however aspects of this regional process can be improved in future plan updates as noted below:

- Address the process used to coordinate improvements between counties when the completion of transportation plans and their adoptions are different. For example, the planning of major transportation improvements between Lake and Orange Counties was difficult to accomplish since METROPLAN Orlando's LRTP was not being developed at the same time as the Lake~Sumter MPO's. Thus, including a transportation improvement in Lake County would result in inconsistencies between the Lake~Sumter plan and the adopted METROPLAN plan for Orange County. It would be ideal if all MPOs included in the CFRPM area updated their plans on the same schedule to avoid this issue in the future.



- The Lake~Sumter MPO LRTP included the requirement to develop a Needs Plan. However the CFRPM-IV was not developed in time for use in this needs assessment. Additionally, the needs assessments for the surrounding counties have not been included in a version of the regional model. Closer coordination of transportation needs assessments would be of benefit to the transportation planning process in each county served by the CFRPM-IV.
- Better integration of the Florida Turnpike Enterprise (FTE) and Orlando Orange County Expressway Authority (OOCEA) planning processes with the plan development for the MPOs would be of benefit to the transportation planning process. The development of toll facility plans occurs in different time-frames from the development of MPO transportation plans. In the case of this transportation plan, the Wekiva Parkway is a fundamental backbone to the integration of Lake County's transportation network to the toll expressways in the greater Orlando area. The issue of adequately identifying the need for toll transportation facilities, their timing, and feasibility should be more clearly defined or accommodated by the MPO transportation planning process with adequate support from the implementing agencies.

Development of a Corridor Preservation Program

Both Lake and Sumter Counties should take steps to evaluate and adopt corridor preservation activities as part of their comprehensive plans and land development regulations. Increases in the cost of transportation facilities, especially the acquisition of right-of-way, limits the ability of local governments to protect the safety and welfare of the public by providing adequate transportation facilities. In some cases, the ability to ever develop needed transportation corridors or improvements is precluded by the development of land without the consideration of needed transportation corridors.

Development of a "Build Out" Transportation Network

The Lake~Sumter MPO should work with the Lake and Sumter County Planning and Public Works Departments to develop a "Build-Out" transportation network. This transportation network would identify the major regional facilities needed to accommodate build-out intensities that may exceed existing planned land uses in areas where land use plan changes are likely to occur. The goal of this Build-Out transportation network is to provide a resource for future transportation and land use planning decisions in both counties and to improve the ability of both counties in developing transportation corridors needed in the future.



Coordination on the Development of New Toll Corridors

The Lake~Sumter MPO should coordinate with the Florida Turnpike Enterprise and other implementing agencies to aggressively pursue the evaluation, planning, funding, and development of major transportation toll facilities in the MPO's planning area.

Development of a County or Regional US 27 Corridor Plan

The Lake~Sumter MPO, Lake County, and Florida Department of Transportation should partner to develop a regional or county US 27 Corridor Plan. Currently, much of US 27 in Lake County is beginning to develop like portions of US 27 in Polk County, south of I-4. This development pattern includes large residential developments with all or primary access to the transportation network via US 27. Often these residential developments are marketed as seasonal residences to non-natives or as retirement communities. This land use often creates conflicts with the regional and high speed nature of US 27, resulting in numerous and severe traffic crashes that have often resulted in fatalities. This US 27 corridor study should address:

- Appropriate land uses and their integration with the transportation network.
- The development of parallel transportation facilities to either accommodate local traffic or divert regional traffic to controlled access facilities.
- Other transportation and land use measures that can be implemented to reduce the interaction of local and regional traffic.

This study should at a minimum evaluate the US 27 corridor between the Florida Turnpike interchange and I-4 in Polk County.

Expand Multimodal Mobility Through Planning and Implementation of Projects

The public involvement process resulted in strong support for the development of a multimodal transportation system. This included a desired focus on public transportation, bicycle, and pedestrian facilities. The MPO, counties, and implementing agencies such as the FDOT should increase their cooperative multimodal planning efforts with the intent of increasing the planning for and ultimate implementation of multimodal transportation projects.