

*Final Report*

# The Florida Rail System Plan: Policy Element



*prepared for the Florida Department of Transportation*

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## Florida Department of Transportation

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SECRETARY

March 19, 2009

### Citizens of Florida:

I am pleased to submit to you the Policy Element of the 2009 Florida Rail System Plan. This plan is more visionary, strategic, and policy-driven than in the past.

The plan was guided by a broad base of stakeholders, the Rail Stakeholders Advisory Committee, whose members represent the public and private sector, modes of transportation, economic development and environmental interests, and a citizen representative. The committee worked throughout the summer and fall of 2008 to develop a vision for Florida's rail system and recommend strategic goals, objectives, and policies to guide the development of this plan.

The Florida Rail System Plan will be comprised of this document, the Policy Element, and an Investment Element which will be completed in June of 2009. The Policy Element provides a broad policy framework for the investment of limited state resources in Florida's rail system. The Investment Element will build upon the framework of the Policy Element by identifying the needs of Florida's rail system, establishing priorities for the investment of state funds, and setting forth future action steps necessary to implement the plan.

Florida, in the year 2030, will be shaped by the actions, decisions, and policy choices made today. Rail transportation will play a critical role in meeting the challenges of continuing population growth, a rapidly diversifying economy, improving our infrastructure, and preserving our exceptional natural environment. This will require a creative and visionary approach to address the mobility needs of Florida's citizens, businesses, and visitors while fostering smarter and more sustainable patterns of growth for our future. Please join with the Florida Department of Transportation and all of our partners in delivering the promise of this plan.

Sincerely,

Stephanie C. Kopelousos  
Secretary

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# Executive Summary

The 2009 Florida Rail System Plan is one of the various statewide modal planning efforts of the Florida Department of Transportation (FDOT) conducted under the policy guidance of the 2025 Florida Transportation Plan. By law, the Florida Rail System Plan is to include an identification of priorities, programs, and funding levels required to meet statewide needs. Further, the plan must be updated every two years and cover both passenger rail service and freight rail service.

Throughout the summer and fall of 2008, the Florida Rail Stakeholder Advisory Committee, which represented the public and private sector, modes of transportation, economic development, and environmental interests, and a citizen representative worked to develop consensus recommendations to the Secretary of the Florida Department of Transportation for consideration in the development of the Florida Rail System Plan.

The goals, objectives, and strategies in this plan are based upon a review of trends, conditions, and social issues that will influence future investments in Florida's rail transportation system. These include:

- the role of rail transportation in increasing the state's economic competitiveness;
- projected increases in population and the impact of this population increase on the demand for passenger and freight rail services;
- ensuring the safety of the rail system in light of increasing demand for mobility;
- the need to enhance security of the rail system and support the critical role rail plays in emergency preparedness and response efforts;
- the need to maintain rail infrastructure and corridors and plan for the preservation of rights of way for future appropriate use;
- the physical, environmental, and financial constraints associated with adding capacity to the transportation system;
- the balance between adding capacity to the transportation system while supporting community livability goals such as compact growth and transit-oriented development; and,
- the role that rail can play in support of Florida's environmental initiatives, including the reduction of greenhouse gas emissions, increased energy efficiency, and land conservation.

Chapter 1 of this plan includes a statewide vision for Florida's rail transportation system that recognizes the vital role that passenger and freight rail will play as part of a multimodal, interconnected transportation system if Florida is to be well positioned to compete globally in the 21<sup>st</sup> century. The vision also lays the foundation for rail

investments to support community values, improve the quality of life for Florida's residents and visitors, and ensures the sustainability of the state's environment and natural resources. This chapter also describes several key events that have led to a rebirth of railroading in Florida and reviews the purpose and role of the Florida Rail System Plan. Further, the chapter describes the purpose of the Rail Stakeholder Advisory Committee and provides a summary of key societal and demographic trends that were considered by the committee in developing their recommendations for the development of this plan.

Chapter 2 provides an overview description of Florida's rail system and services and summarizes the roles and responsibilities of the Florida Department of Transportation and privately-owned rail companies to provide rail service in Florida.

Chapter 3 documents the goals, objectives, and strategies of this plan which together form a policy framework for the investment of scarce state resources in our rail system in partnership with private rail interests and other public entities. This policy framework is organized around the five goals of the 2025 Florida Transportation Plan and is summarized as follows:

- **Safety and Security:** FDOT should continue to identify and support rail and rail-highway safety improvements and coordinate with appropriate partners to identify and implement security and emergency response plans;
- **Quality of Life and Environmental Stewardship:** Rail and land use planning should be integrated at the state, regional, and local levels. Further, the environmental benefits of rail should be evaluated and transportation and environmental decisions should be integrated into the statewide, regional, and local planning processes.
- **Maintenance and Preservation:** Maintenance and preservation of rail infrastructure and service and modernization of the rail system should remain a high priority.
- **Mobility and Economic Competitiveness:** Investments in Florida's rail system should support and spur desired economic growth. Florida should invest in rail system capacity improvements to enhance the interstate and intrastate movement of people and goods when public benefit can be demonstrated, and capacity should be preserved for future needs, including the evaluation of all abandoned rail corridors for future rail use.
- **Sustainable Investments:** Public awareness of the need for state and regional investments in rail is an important component of Florida's goal to become increasingly competitive economically and its ability to keep pace with investments in both passenger and freight rail occurring elsewhere in the nation. Opportunities for funding rail projects should be aggressively pursued in cooperation with leaders at the local, regional, state, and national levels. Specifically,
  - The state should capitalize on opportunities at the local, regional, and state levels to capture federal dollars for rail projects;
  - New and innovative revenue sources and financial tools to fund rail improvements should be identified;
  - Public-private partnerships should be considered when in the public interest; and,

- Funds should be made available to rapidly respond to opportunities.

The 2009 Florida Rail System Plan consists of two elements:

- **The Policy Element:** This document, the Policy Element, establishes a vision for passenger and freight rail transportation in Florida and a policy framework of goals, policies, and strategies to guide future state rail investments and decisions.
- **The Investment Element:** The Investment Element will identify an inventory of needs, establish priorities for the investment of state funds using the policy framework of the Policy Element, and will set forth future action steps necessary to implement the plan. This element will be completed in June 2009.

# 1.0 Introduction

## The Vision of Rail Transportation in 2030

*Florida has a safe, secure, and efficient passenger and freight rail system providing mobility, improving quality of life and promoting economic opportunities and environmental sustainability for Florida.*

It is the year 2030. Florida's residents, visitors, and businesses enjoy improved quality of life, increased economic opportunities and competitiveness, smart growth in and around urban centers, and greater environmental sustainability. Rail is contributing significantly to all of these by providing safe, and increasingly seamless, interconnected passenger and freight mobility throughout the state, its regions and in many cases its communities, as well as efficient connections to national and international markets. It does this through thoughtful investment strategies, effective public/private and public/public partnerships, and full integration with other modes of transportation.

## The Rebirth of Railroading

The history of railroading in Florida spans over 170 years and is intricately linked to the state's growth and development. Most of the significant railroading activities occurred in the first half of the 20<sup>th</sup> century with the opening of peninsular Florida and a boom in railroad construction. Unfortunately, few rail investment activities occurred in the second half of the 20<sup>th</sup> century, largely due to the construction of the National System of Interstate and Defense Highways which largely made the automobile the preferred choice for personal mobility and increased the trucking industry share of freight movement. However, since 1980, various events occurred to mark the rebirth of railroading, including:

- The Staggers Rail Act of 1980 deregulated the industry allowing railroads to compete in the transportation marketplace and abandon unprofitable lines;
- Growing highway and airport congestion emphasized the need for a renewed role for rail passenger service;
- Legislation creating the High Speed Rail Transportation Commission (1984) and the Florida High Speed Rail Authority (2001);

- The 1988 purchase of the South Florida Rail Corridor by the Florida Department of Transportation from CSX Transportation (CSXT) and the initiation of commuter rail operations in southeast Florida in 1989 (TriRail);
- Recent initiatives to create or expand commuter rail service in Florida including but not limited to; expansion plans for Tri-Rail by the South Florida Regional Transportation Authority, the South Florida East Coast Corridor Study, the proposed Central Florida Commuter Rail Transit project (SunRail), Metrorail expansion projects under consideration in Miami-Dade County, a proposed commuter rail system in the Tampa Bay area, and the Jacksonville Transportation Authority feasibility study for commuter rail in northeast Florida.

## **Purpose and Role of the Florida Rail System Plan**

The Florida Department of Transportation (FDOT) is responsible for developing the Florida Rail System Plan. According to Section 341.302(3), Florida Statutes<sup>1</sup>, the rail system plan is to include an identification of priorities, programs, and funding levels required to meet statewide needs. The plan must be updated every two years and cover both passenger rail service and freight rail service. Further, in recognition of the role that rail plays as a part of Florida's overall transportation system, the plan must be consistent with the 2025 Florida Transportation Plan- the statewide transportation plan which identifies goals, objectives, and strategies to guide transportation investment decisions in Florida over a 20-year period.

In 2008, significant federal rail legislation was enacted (H.R. 2009). The legislation is comprised of three Acts; the Rail Safety Improvement Act of 2008, the Passenger Rail Investment and Improvement Act of 2008, and the Clean Railroads Act of 2008. This legislation contains a number of provisions related to rail safety in the United States, reauthorizes Amtrak and provides funding authorization to encourage the development of new and improved intercity passenger rail service (including high speed rail corridor development), and links federal rail grants to state rail plans that comply with certain minimum plan content requirements. Thus, it is important that the Florida Rail System Plan is compliant with these minimum requirements to ensure state eligibility for certain federal rail funding programs. (See Appendix B for more information on the purpose and minimum content requirements for state rail plans).

The 2009 Florida Rail System Plan is one of the various statewide modal planning efforts of the FDOT conducted under the policy guidance of the 2025 Florida Transportation Plan; including the Strategic Intermodal System Strategic Plan, the Seaport System Plan and Seaport Mission Plan, the Aviation System Plan, and Transit 2020.

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<sup>1</sup> The Florida Rail Plan is required by ss. 341.302(3), Florida Statutes. See Appendix B for the text of this statute.



Florida's rail system is an integral part of the Strategic Intermodal System (SIS). The SIS is a statewide, interconnected system of high-priority transportation hubs, corridors, and connectors. Recognizing the important economic impact of the system, facilities are designated on the SIS based on objective measures of transportation and economic activity. The SIS includes transportation facilities such as deepwater seaports; commercial airports; waterways; rail corridors; highways; and intercity bus, spaceport, passenger rail terminals, and freight rail terminals. To illustrate the importance of rail as a component of the SIS, rail facilities designated on the SIS carry 100 percent of all interregional rail passengers and over 90 percent of the freight rail tonnage on the state.

The 2009 Florida Rail System Plan is an update to the 2006 Florida Freight and Passenger Rail Plan and is a key part of an evolving rail planning process in Florida. The plan builds upon previous rail planning efforts, including the 2006 Florida Freight and Passenger Rail Plan, the work of the Florida High Speed Rail Authority, and the 2006 Florida Intercity Passenger Rail Vision Plan. Rail planning also has a close connection to Florida's economic, environmental, and community plans. Therefore, it is important for the Florida Rail System Plan to support the various components of Florida's statewide planning framework including, but not limited to:

- *Florida's Strategic Plan for Economic Development;*
- *Florida's Strategic Intermodal System Plan;*
- *Transit 2020;*
- *The Florida Aviation System Plan;*
- *The Florida Seaport System Plan and the Seaport Mission Plan;*
- Metropolitan Planning Organization Long-range Transportation Plans;
- Strategic Regional Policy Plans and regional visioning efforts;
- Local government comprehensive plans;
- Transit development plans; and,
- Other rail and freight plans.

The 2009 Florida Rail System Plan consists of two elements:

- **The Policy Element:** This document, the Policy Element, establishes a vision for passenger and freight rail transportation in Florida and a policy framework of goals, policies, and strategies to guide future state rail investments and decisions.
- **The Investment Element:** The Investment Element will identify an inventory of needs, establish priorities for the investment of state funds using the policy

framework of the Policy Element, and will set forth future action steps necessary to implement the plan. This element will be completed in June 2009.

## The Rail Stakeholder Advisory Committee

Transportation planning and implementation is the responsibility of a number of public and private entities. This is especially true for the rail system in Florida since private rail companies own much of the rail infrastructure in Florida. The collective efforts of these companies in partnership with the Florida Department of Transportation and other public and private entities - each with well-defined roles and responsibilities - will be required to achieve the goals of the 2009 Florida Rail System Plan.

To this end, in June 2008, the Florida Department of Transportation formed a committee made up of various stakeholders representing a wide array of interests, to assist in the development of the Florida Rail System Plan<sup>2</sup>. The committee's consensus recommendations were submitted to the Secretary of Transportation in December 2008 and are the foundation of this Policy Element of the 2009 Florida Rail System Plan.

## What are the Transportation Challenges?

This Policy Element of the 2009 Florida Rail System Plan was developed in consideration of key demographic and societal trends. The following trends are noteworthy:

**Population growth.** Florida's rapid growth puts pressure on all aspects of the state's infrastructure, especially the transportation system. A growing population not only adds automobiles to the state's roadways (thus competing with freight for highway capacity), but the increase in economic activity to support this population generates additional demands for freight movement.

In spite of recent slowing of growth due to a downturn in the national and state economy, by 2030 more than 25 million<sup>3</sup> people will call Florida home, an increase of over 35 percent since 2007. Although much of this growth will be focused in urbanized areas, Florida will continue to see growth in all of its regions and urbanized area boundaries will continue to grow across county lines. This trend reflects the increasingly competitive nature of Florida's economy at the regional level. The expected growth in population over the long-

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<sup>2</sup> Organizations represented on the Rail Stakeholder Advisory Committee can be found in Appendix A and at the following website:  
<http://www.dot.state.fl.us/rail/PlanDevel/RSAC/RSACabout.shtm>

<sup>3</sup> SOURCES: U.S. Department of Commerce - Bureau of the Census  
Bureau of Economic and Business Research, University of Florida, *Florida Population Studies*

term reinforces the value of investing in rail as part of a multimodal transportation strategy to more efficiently accommodate the mobility needs of future populations.

**Safety and security.** Florida places a high priority on the safety and security of the rail system. However, as demand for mobility on the state's transportation system grows, the probability of accidents, including fatal accidents, is likely to increase. It is also critical for all partners to work together to enhance the security of the rail system and support its critical role in emergency preparedness and response efforts.

**Preservation and maintenance.** Significant investments are required to address statewide rail line and structure maintenance as well as the modernization of rail facilities to ensure the competitiveness of railroads, especially short line railroads. In addition, as rail corridors are abandoned or freight services are suspended, it is important to plan for the long-term preservation of these rail corridors and rights of way for future appropriate use.

**Rail's role in Florida's economy.** Florida's Strategic Plan for Economic Development, which is developed by Enterprise Florida, Inc. pursuant to Section 288.905(2), Florida Statutes, envisions Florida creating high-paying jobs in the service, information, and technology markets. These types of businesses demand faster and more reliable transportation options - a role that rail can play for the movement of both passengers and freight. Significant increases in freight are forecast in the future at a national level as well as in Florida. Although trucks will handle a significant amount of this freight, highway congestion and energy costs will make the increase in the percentage of freight moved by rail a necessity.

**Capacity constraints in the transportation system.** Many urban and interregional highway corridors are currently or are expected to be heavily congested during peak periods by 2025, even after planned capacity improvements are made. Likewise, more than 30 percent of the state's airports are projected to be operating at more than 80 percent of capacity, the point at which additional capacity should be under construction. Significant additional capacity is also needed to assist seaports in meeting expected growth in freight and cruise activity. For rail and urban transit systems to serve as viable options for the movement of people and freight within and between urban areas, investments in additional passenger and freight rail capacity will also be needed.

**Rising costs of transportation and reduced revenues.** Although the current economic downturn has resulted in a short-term decline in the cost of providing transportation infrastructure, the longer-term impact of both rising costs of providing and maintaining infrastructure and reduced revenue projections result in an increasing backlog of transportation needs. In addition, improvements to the rail system, including security features, typically involve high capital costs.

**Energy efficiency and concerns about climate change.** A recently released report titled *Florida's Energy and Climate Change Action Plan*<sup>4</sup> contains a number of policy

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<sup>4</sup> Florida's Energy and Climate Change Action Plan October 15, 2008

recommendations aimed at increasing energy efficiency and reducing the carbon footprint and greenhouse gas emissions (GHG) associated with the transportation sector in Florida. The report recognizes that there has been a tremendous growth in freight traffic in recent years, and refers to a report by the American Association of State Highway and Transportation Officials<sup>5</sup> which states that national freight forecasts estimate an 89 percent increase in tons of freight by 2035. The action plan acknowledges that to meet this increased demand and minimize GHG emissions will require many simultaneous actions in both the trucking and rail industries. The plan further states that “From an energy consumption and GHG emission perspective, the use of intermodal transportation to haul freight can be more efficient than moving that same freight by a single mode of transport, depending on the distance, weight, and time sensitivity of the shipment.”

**Balancing transportation and community livability.** The delicate balance between transportation and community livability is becoming more challenging as demand for the mobility of people and freight continues to rise and choices for locating new development and infrastructure become more constrained. Investing in rail creates an opportunity to address mobility needs while promoting the creation of compact livable communities.

## How has Florida Responded?

To respond to the increasing demand for rail services and the importance of rail to the state’s overall mobility, Florida has been one of the nationwide leaders in promoting public-private partnerships and supporting the rail system. Some of the recent key investments and commitments to strengthen both the freight and passenger rail service include:

- Pending infrastructure investments in the CSX Transportation (CSXT) “S” Line from Jacksonville to central Florida, road/rail grade separations, and roadway improvements supporting the proposed integrated logistics center in Winter Haven, which will serve both the central Florida and Tampa Bay markets;
- Double-tracking portions of the Florida East Coast Railway (FEC) which will expand north-south capacity between Jacksonville and Miami;
- Pending capacity improvements on CSXT along the I-10 corridor between Jacksonville and Pensacola, improving east-west access;
- Pending acquisition of rail lines from CSXT in the Orlando metropolitan area for commuter rail operations;

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<sup>5</sup> “Transportation Invest in our Future—America’s Freight Challenge,” American Association of State Highway and Transportation Officials (AASHTO), May 2007.

- Additional pending investment in commuter rail service in South Florida, including control of dispatching on the South Florida Rail Corridor; and
- Continued investments in Florida's short-line railroads allowing them to remain competitive and to expand their services.

Chapter 2 of this plan, which follows, provides a description of Florida's rail system and services and summarizes the roles and responsibilities of the State of Florida and privately-owned rail companies. Chapter 3 describes the specific goals, objectives, and strategies necessary to achieve this vision.

## **2.0 Overview of Florida's Rail System**

### **Roles and Responsibilities**

Unlike other transportation networks, the rail network is almost entirely owned and maintained by private interests. The rail network stretches across the state and serves nearly every major population center. It is used for intercity passenger service, including the Amtrak Auto Train service connecting the Northeast United States and Florida. Florida's rail network also provides access to seaports, citrus plants, phosphate facilities, power plants, and other vital industries.

Florida, like most other states, has provided public support to privately held railroads only when deemed in the best interest of the state. The rail program administered by FDOT includes rail safety inspections, acquisition of rail corridors, assistance in developing intercity passenger and commuter rail service, fixed guideway system development, rehabilitation of rail facilities, intercity rail transportation, support for the Florida Operation Lifesaver Program, and the rail-highway grade crossing safety improvement program. Recently, FDOT has assisted the freight railroads with capacity increasing improvements through various state funding programs.

The following is a description of the freight rail system and passenger rail services operating in Florida:

### **Freight Rail**

The Florida rail system is comprised of 2,796 miles of track routes owned by 15 line-haul railroads and terminal or switching companies, as well as 81 miles owned by the State of Florida. As the largest operator, CSXT owns more than 53 percent of the statewide track mileage. This includes two Class I<sup>6</sup> Railroads (CSX Transportation and Norfolk Southern

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<sup>6</sup> A railroad with 2006 operating revenues exceeding \$346.7 million is classified as a Class I Railroad according the Surface Transportation Board.

Corporation), two regional<sup>7</sup> railroads (Alabama and Gulf Coast Railway and Florida East Coast Railway), nine local <sup>8</sup> railroads (AN Railway, Bay Line Railroad, First Coast Railroad, Florida Central Railroad, Florida Midland Railroad, Florida Northern Railroad, Georgia and Florida Railway, Seminole Gulf Railway, and South Central Florida Express) and one railroad specializing in switching and terminals<sup>9</sup> (Talleyrand Terminal). These railroads carried about 1.9 million carloads and over 108 million tons of freight and paid \$517.9 million in wages to more than 8,142 workers in 2006.

With respect to freight carried by rail, there is a relatively large imbalance between inbound and outbound shipments -- a consequence of Florida's large consuming population and relatively modest manufacturing sector. Inbound freight by rail to consumers is more than three times as much as outbound shipments by producers.

Of the more than 108 million tons of freight moved by rail in Florida in 2006:

- 49 million tons (45 percent) was local to the state (i.e., both originated and terminated in Florida). This is an unusually high percentage, and reflects the importance of the rail network to intrastate mobility. Most of the tonnage consisted of phosphates, fertilizers, and construction materials. There also was significant intrastate movement of containers, food, and lumber.
- 45 million tons (41 percent) was inbound consisting mostly of coal for electric power plants and phosphate movements into west central Florida, which includes Tampa and St. Petersburg. Northeast Florida had the second highest terminating tonnage, largely attributable to Jacksonville's extensive rail yards where many national rail trips terminate, and where cargo is transferred to trucks for local consumption, hauled to Florida peninsula destinations, or exported through JaxPort.
- 13 million tons (12 percent) was outbound and consisted primarily of aggregate from southeast Florida and phosphate from southwest Florida.
- 1.8 million tons (2 percent) were pass-through movements (movements that did not originate or terminate in Florida).

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<sup>7</sup> A Regional Railroad is a non-Class I line-haul railroad operating 350 or more miles of road and/or with revenues of at least \$40 million according to the Surface Transportation Board.

<sup>8</sup> A Local Railroad is neither a Class I nor a Regional Railroad and is engaged in line-haul service according to the Surface Transportation Board.

<sup>9</sup> A Switching and Terminal Railroad is a non-Class I railroad engaged in switching and/or terminal services for other railroads.

## Passenger Rail

In Florida, Amtrak operates four distinct services, the *Auto Train*, *Silver Meteor*, *Silver Star*, and *Sunset Limited*, covering 24 stations throughout the state. Amtrak operates in Florida over lines owned by CSX Transportation and the Florida Department of Transportation (South Florida Rail Corridor). Ridership in Florida was just over 840,000 in 2007, representing 3.3 percent of the national total. However, the total number of Amtrak passengers in Florida decreased by 10.1 percent between 2001 and 2007. This is mainly due to the service interruption on the *Sunset Limited* route between New Orleans and Jacksonville after Hurricane Katrina. Interestingly, the recently enacted federal rail legislation (H.R. 2095) referenced earlier in this plan contains a provision requiring Amtrak to study and report in 2009 on the feasibility of restoring service between New Orleans and Sanford, Florida.

In addition, Florida's only commuter rail, Tri-Rail is operated by the South Florida Regional Transportation Authority (SFRTA) and covers a 72-mile-long corridor (142.2 directional route miles) between West Palm Beach and Miami. Tri-Rail has 18 stations along the south Florida coast including five stations in Miami-Dade County, seven in Broward County, and six in Palm Beach County. In 2007, Tri-Rail was ranked 12<sup>th</sup> among 20 commuter rail systems nationwide, with more than 3.4 million annual unlinked trips in southeast Florida. The total number of Tri-Rail passengers increased by 35.3 percent between 2001 and 2007, and results to date for 2008 indicates an even stronger increase at 20.8 percent in the first half of 2008. Preliminary figures show Tri-Rail carried 4,303,509 passengers in 2008, representing a 22.9 percent increase over the 2007 total. This is the result of the growth in population in southeast Florida and growing traffic congestion, as well as an increased interest in alternative transportation options although fuel prices have decreased throughout 2008.

In 2006, the Florida Department of Transportation prepared the *Florida Intercity Passenger Rail "Vision Plan"*. The plan found that by 2040, the intercity travel market would grow from just over 100 million trips in 2006 to nearly 200 million trips by 2020 and 320 million trips by 2040.<sup>10</sup> This increase will add pressure on existing transportation facilities and call for the development of substantial new infrastructure to meet the demand. The largest numbers of estimated intercity trips are between central Florida and Tampa Bay (Orlando-Tampa); southeast Florida and central Florida (Miami-Orlando); and southeast Florida and the Tampa Bay region (Miami-Tampa). Additional significant travel is also anticipated between Jacksonville (northeast Florida) and Orlando (central Florida).

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<sup>10</sup> Source: Florida Intercity Passenger Rail Vision Plan, Draft Executive Report, Florida Department of Transportation, August 2006



## **Future Needs Assessment**

The Investment Element of the 2009 Florida Rail System Plan, which will be completed in June 2009, will include an updated inventory of freight rail system and passenger rail services operating in Florida as well as an assessment of Florida's rail system needs.

## 3.0 Goals, Objectives, and Strategies

Florida's future economic competitiveness and quality of life require meeting increasing demands for moving people and goods in a sustainable manner. Despite slower growth in population and tourism between 2007 and 2008, due to a slowdown in the state and national economy, continued growth can be expected in the long-term. Our economic growth is also dependent on the movement of raw materials and freight into and within the state, as well as across state lines and through international gateways. Much of this increase in demand has been handled without a corresponding increase in the capacity of our transportation system. As a result, our highways are experiencing high levels of congestion, while our rail systems, airports, and seaports must attempt to keep pace with demand for mobility.

As Florida responds to this increased need for mobility, we must also meet rising business and household expectations for safety, security, efficiency, and reliability while preserving Florida's rich environment and livable communities. Furthermore, uncertainty in the future cost or availability of fossil fuels, as well as the growing awareness of the need to reduce greenhouse gas emissions, suggests a shift towards greater emphasis on rail transportation systems. Physical, environmental, community, and financial (revenue and cost) conditions sometimes limit, and sometimes enhance, our ability to meet these expectations.

Clearly, no single mode of transportation will sufficiently serve the growing demand for the mobility of people and goods in Florida. Therefore, Florida must place a stronger emphasis on a multimodal interconnected system if the state is to be well positioned to compete globally in the 21st century. The state's rail system, with its inherent energy efficient and environmentally-friendly characteristics, should play a key and increasing role, in partnership with the highway system and other transportation modes, to meet our future mobility needs.

The major issues to be addressed in the future include capacity constraints and the high capital costs to improve the rail system. The 2006 Florida Freight and Passenger Rail Plan called for FDOT to emphasize the following priorities:

- Eliminate chokepoints and improve corridor operations;
- Improve the interaction between rail, seaports and trucking;
- Upgrade shortline railroads to handle industry-standard cars;

- Improve railyard operations and opportunities for passing sidings; and,
- Respond to the increasing demand for passenger rail service while ensuring continued freight access on shared corridors.

The department will continue with these initiatives while placing a greater emphasis on freight and passenger rail in its overall transportation planning process and investment decisions.

The goals of this plan are organized around the five goals of the 2025 Florida Transportation Plan. These goals are:

- Safety and Security
- Quality of Life and Environmental Stewardship
- Preservation and Maintenance
- Mobility and Economic Competitiveness
- Sustainable Transportation Investments

This plan includes 5 goals and 11 long range objectives as listed in Table 3.1. Also included under the goals and objectives are key implementation strategies for all public and private partners and stakeholders to consider in their planning and programming activities. These strategies constitute key actions and policies recommended by the Rail Stakeholder Advisory Committee. (see Appendix A for a complete listing of the committee's recommendations). Finally, this plan also includes implementation actions for the Florida Department of Transportation to take as it plans and invests state funds in Florida's rail system.

It is important to note that although the following goals, objectives, and strategies follow the goal structure of the 2025 Florida Transportation Plan, they are also intended to look forward to 2030 and, as such, will serve as important input to the next update of the 2025 Florida Transportation Plan and the Strategic Intermodal System Plan.

**Table 3.1 Summary of 2009 Florida Rail System Plan Goals, Objectives, and Strategies**

<b>Goals</b>	<b>Long Range Objectives</b>	<b>Key Implementation Strategies</b>	<b>FDOT Implementation Actions</b>
<b>Safety and Security</b>	<ul style="list-style-type: none"> <li>• Reduce accidents and fatalities</li> <li>• Ensure the rail system is secure</li> <li>• Ensure the rail system can respond to emergencies</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and implement rail and rail-highway safety improvements</li> <li>• Coordinate to identify and implement security and emergency response plans</li> <li>• Identify partnerships to fund safety and security improvements</li> <li>• Increase public awareness of rail safety through education</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to invest in grade crossing safety improvements</li> <li>• Continue to support the safety inspection program and education/enforcement programs such as Operation Lifesaver</li> <li>• Continue support for the crossing opening and closure program</li> <li>• Develop a safety action plan to address trespass issues</li> <li>• Promote the use of intelligent transportation management technologies</li> <li>• Develop security action plans</li> <li>• Coordinate with appropriate agencies to implement emergency response plans</li> <li>• Extend public outreach efforts to law enforcement agencies and community organizations</li> </ul>

Goals	Long Range Objectives	Key Implementation Strategies	FDOT Implementation Actions
<p><b>Quality of Life and Environmental Stewardship</b></p>	<ul style="list-style-type: none"> <li>• Support responsible land use strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Integrate rail and land use planning at all levels:               <ul style="list-style-type: none"> <li>○ State level: Integrate statewide growth management and transportation plans</li> <li>○ Regional level: Encourage regional entities to coordinate and integrate plans in support rail and to advance rail initiatives</li> <li>○ Local level: Encourage land use plans conducive to sustainable rail-oriented communities and economies                   <ul style="list-style-type: none"> <li>▪ Review and implement, where appropriate, land use practices and programs that have been successful in other states and countries to support rail and effectively integrate various modes of transportation</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Work with DCA and others to integrate long-range growth management and transportation plans and help create a policy framework for land use and infrastructure supportive of rail</li> <li>• Work with local governments to ensure land use decisions near commuter rail hubs are supportive of urban infill and transit-oriented design and development concepts, where appropriate</li> <li>• Evaluate the impacts of rail capacity expansion on communities and the environment</li> </ul>

Goals	Long Range Objectives	Key Implementation Strategies	FDOT Implementation Actions
<b>Quality of Life and Environmental Stewardship (cont.)</b>	<ul style="list-style-type: none"> <li>• Support responsible environmental stewardship</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate the environmental benefits of rail and integrate environmental decisions into the transportation and land use planning process</li> <li>• Inform the public and policy makers about the environmental and other benefits of rail</li> <li>• Support the use of carbon-reducing technology for locomotives and encourage participation in the EPA SmartWay program for rail</li> <li>• Make explicit the environmental benefits of rail planning and project level assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate with other transportation agencies to expand the use of ETDM, where applicable, to identify potential environmental issues</li> </ul>

Goals	Long Range Objectives	Key Implementation Strategies	FDOT Implementation Actions
<b>Maintenance and Preservation</b>	<ul style="list-style-type: none"><li>• Preserve, maintain, and modernize the rail system when public benefit can be demonstrated</li></ul>	<ul style="list-style-type: none"><li>• Continue to invest in infrastructure and service, including assistance for shortline railroads to achieve 286,000 pound car standards</li><li>• Encourage long-term preservation of rail corridors and rights-of way for future appropriate use</li><li>• Continue to identify and support rail bridge repair and replacements</li><li>• Continue to support modernization, including technologies and system management strategies</li></ul>	<ul style="list-style-type: none"><li>• Work with all partners to maintain rail infrastructure, preserve rail service, and modernize the rail system when public benefit can be demonstrated</li></ul>

Goals	Long Range Objectives	Key Implementation Strategies	FDOT Implementation Actions
<b>Mobility and Economic Competitiveness</b>	<ul style="list-style-type: none"> <li>Invest in rail capacity improvements to enhance the interstate and intrastate movement of passengers and freight when public benefit can be demonstrated</li> <li>Ensure rail investments to support and spur desired economic growth</li> </ul>	<ul style="list-style-type: none"> <li>Continue to support expansion of the multimodal transportation system with rail playing a critical role</li> <li>Promote smooth and efficient transfers of passengers and freight within the rail system and between rail and other modes</li> <li>Preserve new and existing capacity and evaluate abandoned corridors for future needs</li> <li>Strengthen coordination with economic development organizations to ensure rail investments to support and spur desired economic growth</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate corridors for future uses during the abandonment process</li> <li>For passenger rail:               <ul style="list-style-type: none"> <li>Focus on development of key commuter rail hub systems and work to ensure supportive transit connections and land uses</li> <li>Focus on development of intercity passenger rail service between commuter rail hubs and key city pairs</li> </ul> </li> <li>For freight rail, where public benefits exceed public investment:               <ul style="list-style-type: none"> <li>Invest in freight infrastructure that improves operational efficiency and eliminates critical chokepoints</li> <li>Invest in upgrades to the system to handle industry-standard rail cars</li> <li>Invest in rail projects to ensure continued access to key industrial and intermodal hubs</li> </ul> </li> <li>Invest in new rail capacity in under-served areas of the state</li> </ul>



Goals	Long Range Objectives	Key Implementation Strategies	FDOT Implementation Actions
<b>Sustainable Investments</b>	<ul style="list-style-type: none"> <li>• Achieve broad public support for investments in the rail system</li> <li>• Maximize the use of state and federal funding programs</li> <li>• Identify new and alternative revenue sources and financial tools</li> </ul>	<ul style="list-style-type: none"> <li>• Promote public awareness of and support for rail investments, including the economic, growth management, and environmental benefits of rail</li> <li>• Capitalize on opportunities to capture federal funding for rail projects</li> <li>• Conduct benefit analysis for rail investment and project prioritization decisions</li> <li>• Identify new and innovative revenue sources and financial tools and consider public-private partnerships to fund rail improvements when in the public interest</li> </ul>	<ul style="list-style-type: none"> <li>• Develop initial review process for rail projects to seek public input and establish support</li> <li>• Support studies to enable a better understanding of FDOT's investment decisions and the value/cost of investing in a variety of projects, including rail</li> <li>• Expand project assessment tools to prioritize projects and consider benefits of all modes when meeting needs</li> <li>• Ensure benefit/costs analyses include full range of mobility, economic growth, quality of life, environmental, safety, and other factors</li> <li>• Ensure funds are available to respond to investment opportunities, to the maximum extent feasible</li> </ul>

## Goal: Safety and Security

<p><b>Provide a safer and more secure transportation system for residents, businesses, and visitors</b></p>
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Improving the safety of the rail system is one of FDOT's highest commitments to residents and visitors. Between 1998 and 2007, total rail accidents/incidents<sup>11</sup> in Florida decreased more than 14 percent. However, during the same period, trespassing fatalities on rail property increased by more than 43 percent<sup>12</sup>. As demand for mobility on the state's transportation system grows, the probability of accidents, including fatal accidents, is likely to increase.

Furthermore, with rail security becoming a more significant issue following the terrorist attacks of September 2001, FDOT should also work as a partner with other interests to enhance rail security. Continued close coordination and consultation with key agencies including the U.S. Department of Homeland Security and the Florida Department of Law Enforcement is needed to protect Florida's rail network from potential acts of terrorism and theft.

Rail can also play a critical role in emergency preparedness and response efforts, such as the delivery of critical supplies and relief personnel and the evacuation of large numbers of people from harm's way. The Florida Department of Community Affairs' Division of Emergency Management has lead responsibility for emergency preparedness at the state level. However, FDOT and other transportation providers (including railroad companies) also have an important role in managing the system during evacuations and assisting with emergency response and recovery activities as well as ensuring a rapid return of commerce following an event.

The use of new technologies can lead to improved rail operations and safety. An example of such technology is "positive train control" in which a train receives information about its location and where it is allowed to travel safely. Recently enacted federal legislation (H.R. 2095) requires certain Class I railroads and intercity and commuter railroads to implement positive train control by December 31, 2015.

The Florida Department of Transportation will continue to collaborate with key partners and agencies at the federal, state, and local levels as well as the private sector to ensure investments help to improve security and reduce highway-rail crossing and other rail corridor accidents and fatalities. More specifically, FDOT will continue to work in concert

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<sup>11</sup> Total rail accidents/incidents is the sum of train accidents, crossing incidents, and other accidents/incidents.

<sup>12</sup> Federal Railroad Administration, Office of Safety Analysis

with the Secretary of the United States Department of Transportation and implement the safety and security provisions of H.R. 2095: The Rail Safety Improvement Act of 2008.

### **Long Range Objectives**

- 1. Reduce rail-related accidents and fatalities.**
- 2. Ensure the passenger and freight rail system is secure.**
- 3. Ensure the rail system can respond to emergencies.**

### **Key Implementation Strategies:**

All appropriate partners should:

- Identify and implement rail and rail-highway safety improvements.
- Coordinate to identify and implement security and emergency response plans.
- Identify public/private and public/public partnership opportunities at the federal, state, and local levels to fund safety and security improvements.
- Extend rail public outreach efforts to law enforcement agencies and community organizations, such as organizations for the homeless, to help reduce trespassing fatalities on rail facilities.

### **FDOT Implementation Actions:**

- Continue investments in grade-crossing safety improvements consistent with recommendations of the safety index program.
- Continue to support the rail safety inspection program supplemental the federal program.
- Continue support for the Florida Operation Lifesaver education and enforcement programs.
- Continue support for the grade crossing opening and closure program.
- Develop a safety action plan with industry and law enforcement stakeholders to reduce fatalities related to trespassing and other trespass issues.
- Develop a security action plan in coordination with industry and law enforcement stakeholders and continue to work with and assist passenger rail service providers to develop security plans.
- In coordination with federal, state, and local emergency plans and railroad companies; continue to identify highway-rail grade crossings that are candidates for temporary closure in relation to emergency events, identify alternative power sources and other measures to guide highway/rail traffic in the event of loss of electricity at signalized

rail grade crossings, and participate in the implementation of approved plans for the use of rail in emergencies to evacuate people, deliver supplies and relief personnel, and assist in recovery efforts.

## Goal: Quality of Life and Environmental Stewardship

### Enriched quality of life and responsible environmental stewardship

The delicate balance between the provision of transportation capacity, community livability, and resource protection is becoming more challenging, as demand for the mobility of people and freight continues to rise and choices for locating new development, redevelopment, and infrastructure become more constrained.

Florida's continued population growth and economic expansion can be attributed in large part to the state's high quality of life and natural amenities. Improvements to and expansion of the rail network are and will continue to be essential to accommodating residents and visitors, attracting additional business investment, and efficiently moving people and goods throughout the state. Rail transportation can also play an important role in helping to reduce greenhouse gas emissions.<sup>13</sup> New development or improvements to the rail system can, however, impact the built and natural environments. Therefore, it is important to ensure transportation planning is integrated and coordinated with land use, resource protection, and economic development planning at the state, regional, and local levels.

Because transportation can play such a critical role in shaping future growth, rail investments must also be integrated with regional and community visions. Rail transportation offers important environmental advantages due to its inherent energy and infrastructure efficiencies, as well as its potential to facilitate sustainable, compact transit-oriented development. From both an environmental and quality of life perspective, Florida should place a greater emphasis on rail transportation in the future.

A cohesive approach for the integration of rail and land use should be developed at the state, regional, and local levels.

### Long Range Objectives:

1. **Support responsible land use strategies.**
2. **Support responsible environmental stewardship.**

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<sup>13</sup> Florida's Energy & Climate Change Action Plan, October 15, 2008

### **Key Implementation Strategies:**

- Integrate rail and land use planning at the state, regional, and local levels.
  - State level: Integrate long-range statewide growth management and transportation plans
  - Regional level: Encourage regional entities to coordinate and integrate plans in support of freight and passenger rail and to advance rail initiatives.
  - Local level: Encourage land use plans and programs that are conducive to the creation of sustainable rail-oriented communities and economies, where appropriate. Local governments should be encouraged, where appropriate, to adopt minimum densities within adopted urban service areas to support rail and provide compact mixed-use urban development at transit and rail stations to make passenger rail a feasible alternative mode of transportation.
- Review and implement, where appropriate, land use practices and programs that have been successful in other states and countries to support rail and effectively integrate various modes of transportation.
- Evaluate the environmental benefits of rail and integrate transportation and environmental decisions into the statewide, regional, and local planning processes. These benefits include, but are not limited to, reductions in greenhouse gas emissions by motor vehicles, energy and infrastructure efficiencies, more compact growth, and land conservation. The environmental benefits of rail transportation should also be made explicit in project level assessments.
- Inform the public and policymakers about the environmental and other benefits of rail to increase the understanding of and support for rail.
- Support the use of carbon-reducing technology for locomotives and encourage participation in the EPA SmartWay<sup>SM</sup> program for rail.

### **FDOT Implementation Actions:**

- At the state level, FDOT should work cooperatively with the Department of Community Affairs and other agencies to integrate long-range statewide growth management and transportation plans. This effort should lead to the creation of a state framework for land use and infrastructure which is supportive of rail and provides incentives for integration of rail and land use at the regional and local levels. These incentives should include but not be limited to:
  - Incentives to local governments for land use decisions that support Transit-Oriented Development and Urban Infill, where appropriate.
  - Reforming the transportation concurrency system to allow greater flexibility for local governments to pursue rail projects, considering alternatives such as weighted concurrency credits, concurrency bonuses, or a broadly assessed alternative mobility fee.

- Work with local governments to ensure land use decisions near commuter rail hubs are supportive of urban infill and transit-oriented design and development concepts, where appropriate.
- Expand the use of the Efficient Transportation Decision Making (ETDM) process by FDOT and other regional and local transportation agencies, where applicable, for early coordination of rail project and corridor review to identify potential environmental issues.
- FDOT should evaluate the positive and negative impacts of expanding existing and creating new rail facilities on local communities and quality of life to guide future investments in rail. Key factors that should be evaluated include:
  - Transportation delay and highway vehicle miles traveled.
  - Noise pollution.
  - Air quality and greenhouse gas emissions.
  - Protected species and land conservation.
  - Safety and security.
  - Smart growth, infill development, and redevelopment.

## **Goal: Maintenance and Preservation**

<p><b>Adequate and cost-efficient maintenance and preservation of transportation assets</b></p>
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Significant investments are required to address statewide needs for rail line and structure maintenance, including bridge rehabilitation, rail, and tie replacement, resurfacing, and maintaining in good repair crossings, signs, and signal systems. There is also a need to update and modernize signal and communication systems for accommodation of passenger service and to maximize the capacity of the existing rail infrastructure for freight. This includes the modernization of track to accommodate heavier rail cars since some short line railroads are not yet able to accommodate the industry standard 286,000-pound rail car.

In addition, continued fiscal pressures have led some rail carriers to abandon previously active corridors or suspend service. Since 2004, five railroads petitioned the Surface Transportation Board for permission to abandon tracks in Florida. Some abandoned corridors have been preserved as rail corridors, but others have been converted to other uses. Therefore, it is important to encourage the long-term preservation of existing passenger and freight rail corridors and rights of way for future appropriate use.

### **Long Range Objective**

1. **Preserve, maintain, and modernize the rail system when public benefit can be demonstrated.**

### **Key Implementation Strategies:**

- Continue to invest in rail system infrastructure and service, such as the current financial assistance for shortline railroads to achieve 286,000-pound rail car weight standards, as well as other track and signal improvements, where appropriate.
- Continue to identify and support rail bridge replacements and improvements, where appropriate.
- Continue to support the modernization of the rail system for better and more efficient service such as promoting the use of intelligent transportation and other system management strategies and technologies.
- Encourage the long-term preservation of existing passenger and freight rail corridors and rights of way for future appropriate use.

### **FDOT Implementation Action:**

- Work with all partners to implement the above strategies to maintain rail infrastructure, preserve rail service, and modernize the rail system when public benefit can be demonstrated.

## Goal: Mobility and Economic Competitiveness

### A stronger economy through enhanced mobility for people and freight

Florida's economy is largely driven by population growth, tourism, and agriculture as well as expanding trade and business sectors. Despite slower population growth and a decrease in the rate of growth of tourism between 2007 and 2008 due to a slowdown in the national economy, demographic and economic growth trends are expected to continue to exceed the national average. According to the Bureau of Economic and Business Research at the University of Florida, Florida's population is estimated to grow by over 35 percent between 2007 and 2030, effectively adding over 6.6 million new residents.<sup>14</sup> Population growth is also projected to occur in all regions of the state. The expected increase in population growth indicates a need for greater transportation capacity to accommodate the long-distance and interregional movement of people and goods.

The growth in population, tourism, and employment is also likely to increase the demand for service-oriented industries including retail trade, finance, real estate, business, professional, and hospitality services. Further, Florida's largely consuming nature, requires a greater than average amount of imported goods. Growing economic needs will place even more demands on the transportation system in general and the rail network more specifically.

Service industries tend to move higher value, more time sensitive goods, and rely on the efficient and reliable movement of business travelers. These industries often keep inventories low to reduce costs, but this requires a dependable supply chain. The trucking industry has historically dominated these types of shipments, but railroads have responded to this demand by offering scheduled services and improved reliability. Consequently, containers and trailers filled with goods supporting service industries exhibit the greatest growth rate in the rail industry. The movement of freight by rail could also provide an opportunity for the expansion of export-related industries.

Investments in freight rail capacity are largely dependent on market conditions and the willingness of the private railroads to invest in services and infrastructure. Florida's private freight railroads meet market demands, but also recognize the rail system's capacity could become insufficient under particular future scenarios. These scenarios include:

- a significant shift in freight demand from truck to rail;
- rapid growth in domestic or international trade through Florida's seaports and connecting to the rail system; or,

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<sup>14</sup> Bureau of Economic and Business Research, University of Florida, *Florida Population Studies*



- significant growth in passenger rail service on existing freight lines.

These potential scenarios would impact the rail system in different ways depending on which region of the state the scenario occurs. The following key factors may affect whether the rail system has sufficient operational capacity:

- the presence of chokepoints;
- capacity constraints at terminals and connectors;
- the physical condition of existing rail track and bridges, such as the ability to accommodate modern, 286,000-pound freight cars; and,
- encroachment on rail corridors and terminals by incompatible land uses which may lead to public pressure for limitations on hours of operation due to noise, vibration, and other impacts.

Because of its fixed infrastructure, the freight rail industry will respond to increases in demand initially through operational measures. There is some potential to create new rail corridors on existing or new right of way, or to reevaluate the use of abandoned rail corridors, but these types of capacity measures will take time to implement.

From a passenger rail perspective, public interest in rail options to meet intercity and regional mobility needs is rising. Passenger rail will steadily become more important as an alternative to the congestion on Florida's highways and increase the mobility of tourists, business travelers, and citizens, especially older Floridians. Furthermore, the concerns over dependence on foreign oil, fluctuating gas prices, and fuel supply disruptions as a result of natural disasters is likely to increase the reliance on transit (commuter rail, heavy rail, light rail, and bus) as an alternative to the automobile for commuting. According to the American Public Transportation Association, transit ridership increased nationally in the first quarter of 2008 compared to the first quarter of 2007. Light rail systems and bus transit systems experienced a 10.3 percent and 2.2 percent increase in ridership respectively. Amtrak ridership reached 25.8 million passengers nationwide in fiscal year 2007 and its national long-distance service increased by over 10 percent in each of the last two years. The significant increases in patronage for the Tri-Rail commuter rail service has been discussed previously.

### **Long Range Objectives**

- 1. Invest in rail capacity improvements to enhance the interstate and intrastate movement of passengers and freight when public benefit can be demonstrated.**
- 2. Ensure rail investments support and spur desired economic growth.**

### **Key Implementation Strategies:**

- Continue to support expansion of an interconnected multimodal system to enhance interstate and intrastate movement of freight and passengers, with rail playing a critical role, when public benefits can be demonstrated.
- Promote smooth and efficient transfers for both people and freight between rail corridors and hubs and other transportation modes within the state.
- Reevaluate all abandoned rail corridors for possible future use by freight or passenger rail service, and carefully consider the need for future rail services on presently unused rail corridors before allowing for their abandonment or conversion to other purposes.
- Connect Florida's railroad system to the state's multimodal transportation system. Improve system integration between freight and passenger rail and connections with other modes of transportation and provide for seamless connections of intra-city and inter-city rail to local transit systems.
- New and existing capacity should be preserved for future needs.
- Strengthen coordination with economic development organizations to ensure rail investments support and spur desired economic growth. Rail investments should:
  - Promote and support better communication between the Florida Department of Transportation modal offices and districts, Regional Planning Councils, Metropolitan Planning Organizations, Regional Economic Development Organizations, and other agencies to explore and respond to rail opportunities.
  - Connect the economic regions of the state, in coordination with regional and community visions.
  - Promote economic and industrial development at appropriate points along existing and new freight rail corridors. Transit-oriented and mixed used developments should be promoted, where feasible.

### **FDOT Implementation Actions:**

- Preserve transportation options by evaluating corridors in the abandonment process for their potential future transportation viability.

#### **For passenger rail investments:**

- Focus on development of key commuter hub systems.
  - Continue support of Tri-Rail service.
  - Complete the South Florida East Coast Corridor Study and work toward implementation of results.

- Complete development of the Central Florida Commuter Rail Transit service (SunRail).
  - Support the proposed commuter rail system in the Tampa Bay area and the results of the Jacksonville Transportation Authority feasibility study for commuter rail in northeast Florida.
  - Work with local transit operators in each commuter rail service area to ensure the adequacy of connections.
  - Work with local governments to ensure land use decisions near commuter rail hubs are supportive of urban infill and transit-oriented design and development concepts, where appropriate.
- Focus on development of intercity passenger rail corridor service between commuter rail hubs in key city pairs, as follows:
  - connection between Orlando and Tampa
  - connection between Miami and Jacksonville
  - connection between Miami and Orlando/Tampa mid-point
  - connection between Miami and Orlando/Jacksonville mid-point
- Work with Amtrak and other partners to reinstate the Sunset Limited service between New Orleans and Sanford consistent with the results of the study required by federal law in H.R. 2095.

**For freight rail investments**, where the public benefits will exceed public investment:

- Invest in the upgrade of the freight rail system to handle industry-standard 286,000-pound rail cars, especially in areas where such investment will significantly increase system-wide capacity.
- Invest in freight infrastructure that improves operational efficiency both on rail lines, as well as where rail interacts with other modes. This includes the elimination of critical chokepoints in the freight rail system.
- Invest in non-maintenance service preservation projects that ensure continued rail access to key industrial and intermodal hubs.
- Invest in new capacity in under-served areas of the state such as southwest Florida and in designated Areas of Critical Economic Concern.

## **Goal: Sustainable Investments**

<b>Sustainable transportation investments for Florida's future</b>
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Florida's transportation system is facing significant challenges as demand for moving people and freight continues to rise; the cost of constructing, operating, and maintaining transportation infrastructure increases; and growth in available revenues slows. The result is a growing gap between investment needs and available funds.

Examples of Florida's rail system needs include improvements to passenger stations and freight rail terminals; improvements on highway connections to intermodal passenger and freight rail terminals; double tracking; signaling and communication system upgrades; grade separations; the construction of other capacity improvements; the extension of Tri-Rail passenger service in Palm Beach County; and, the implementation of the planned Central Florida Commuter Rail Transit Service. In addition, preliminary plans have been developed for statewide passenger rail service connecting the largest urban areas in the state.

For Florida to promote economic competitiveness and keep pace with investments in both passenger and freight rail occurring elsewhere in the nation, the Florida Department of Transportation should promote public awareness of the need for state and regional investments in rail and aggressively pursue opportunities for funding rail projects in cooperation with leaders at the local, regional, state, and national levels.

The Rail Stakeholder Advisory Committee made several recommendations related to transportation funding, including the distribution and allocation of funds to the Strategic Intermodal System. Because some of these recommendations apply to all modes of transportation they are not specifically addressed in this plan but will be considered in the forthcoming updates of the Strategic Intermodal System Plan and the Florida Transportation Plan.

### **Long Range Objectives**

- 1. Achieve broad public support for investments in the rail system.**
- 2. Maximize the use of state and federal funding programs.**
- 3. Identify new and alternative revenue sources and financial tools.**

### **Key Implementation Strategies:**

- Promote public awareness of and support for the need for state and regional investments in rail as an important component of Florida's goal to become increasingly competitive economically and its ability to keep pace with investments in

both passenger and freight rail occurring elsewhere in the nation. These efforts should include the economic, growth management, and environmental benefits of rail.

- Conduct benefit analyses between modes and between project alternatives within the same mode to help make more informed investment decisions and prioritize projects.
- Capitalize on all available opportunities at the local, regional, and state levels to capture federal funding for passenger and rail.
- Identify new and innovative revenue sources and financial tools to fund rail improvements.
- Public-private partnerships should be considered when in the public interest.

### **FDOT Implementation Actions:**

- FDOT should develop an initial review process for statewide or inter-regional rail projects to seek public input and establish public and political support for proposed rail corridors, including hubs and stations, early in the conceptual phase of rail projects to foster opportunities for success. FDOT should work with regional entities to develop such a process for multi-county projects.
- Support alternative studies to help the public better understand FDOT's investment decisions and the value/cost of investing in a variety of projects including rail.
- Expand project assessment methodology tools and ensure they are used to help prioritize and rank projects eligible for funding. FDOT will evaluate projects as part of an overall multi-modal transportation policy that looks at the potential benefits of all modes when looking for the best way to meet a particular need.
- Ensure that benefit/cost analyses include the full range of mobility, economic growth, quality of life, environmental, safety, and other important factors in the benefit analysis such as:
  - Private, partner, and public support
  - Density and intensity of land uses
  - Impact on land use and the potential for shaping land use in desirable ways
  - Impact on quality of life
  - Environmental impacts including as greenhouse gas emissions and harmful pollutants, land conservation, protected species, ecosystem connectivity, etc.
  - Larger, multi-jurisdictional impacts/benefits
  - Regional and statewide needs
  - Cost per unit, both for passenger and freight projects
  - Return on investment (both financial and non-financial implications)

- Highway safety benefits resulting from rail investments that expand passenger and freight movement options.
- Improve flexibility in state plans and procedures to optimize opportunities to obtain and use federal funds for rail projects.
- Funds should be made available to rapidly respond to investment opportunities, to the maximum extent feasible.

# **Appendix A**

## **Florida Rail Stakeholder Advisory Committee**

*Recommendations for the 2009 Florida Rail  
System Plan*

*December 11, 2008*

# Executive Summary

The Florida Rail Stakeholder Advisory Committee, which represented the public and private sector, modes of transportation, economic development, and environmental interests, worked throughout the summer and fall of 2008 to develop consensus recommendations to the Secretary of the Florida Department of Transportation for consideration in the development of the Florida Rail System Plan.

The recommendations in this report are based upon a review of trends, conditions, and social issues that will influence future investments in Florida's rail transportation system. These include:

- the role of rail transportation in increasing the state's economic competitiveness;
- projected increases in population and the impact of this population increase on the demand for passenger and freight rail services;
- ensuring the safety of the rail system in light of increasing demand for mobility;
- the need to enhance security of the rail system and support the critical role rail plays in emergency preparedness and response efforts;
- the need to maintain rail infrastructure and corridors and plan for the preservation of rights of way for future appropriate use;
- the physical, environmental, and financial constraints associated with adding capacity to the transportation system;
- the balance between adding capacity to the transportation system while supporting community livability goals such as compact growth and transit-oriented development; and,
- the role that rail can play in support of Florida's environmental initiatives, including the reduction of greenhouse gas emissions, increased energy efficiency, and land conservation.

The committee's recommendations include a statewide vision for Florida's rail transportation system that recognizes the vital role that passenger and freight rail will play as part of a multimodal, interconnected transportation system if Florida is to be well positioned to compete globally in the 21<sup>st</sup> century. The vision also lays the foundation for rail investments to support community values, improve the quality of life for Florida's residents and visitors, and ensure the sustainability of the state's environment and natural resources.

Goals, policies, and strategies are also recommended by the committee to form a policy framework for the investment of scarce state resources in our rail system in partnership



with private rail interests and other public entities. The primary conclusions of the Rail Stakeholder Advisory Committee can be summarized as follows:

- Opportunities for funding rail projects should be aggressively pursued in cooperation with leaders at the local, regional, state, and national levels. The state should also capitalize on opportunities at the local, regional, and state levels to capture federal dollars for rail projects;
- Public awareness of the need for state and regional investments in rail is an important component of Florida's goal to become increasingly competitive economically and its ability to keep pace with investments in both passenger and freight rail occurring elsewhere in the nation;
- FDOT should continue to identify and support rail and rail-highway safety improvements and coordinate with appropriate partners to identify and implement security and emergency response plans;
- Maintenance of rail infrastructure and service and investments to modernize the rail system should remain a high priority;
- New and existing capacity should be preserved for future needs and all abandoned rail corridors should be evaluated for future rail use;
- Rail and land use planning should be integrated at the state, regional, and local levels;
- The environmental benefits of rail should be evaluated and transportation and environmental decisions should be integrate into the statewide, regional, and local planning processes; and,
- New and innovative revenue sources and financial tools to fund rail improvements should be identified. Public-private partnerships should be considered when in the public interest, and funds should be made available to rapidly respond to opportunities.

The committee's recommendations are organized within the policy framework of the 2025 Florida Transportation Plan which was adopted in 2005. It is important to note that although these recommendations are guided by the Florida Transportation Plan, they are also intended the look forward to 2030 and, as such, will serve as important input to the next update of the 2025 Florida Transportation Plan.

# 1.0 Introduction

Florida law requires the Florida Department of Transportation (FDOT) to develop the Florida Rail System Plan. The plan must cover both passenger rail service and freight rail service and support the 2025 Florida Transportation Plan - a plan adopted in 2005 to guide transportation investment decisions over a 20-year period.

The Florida Rail System Plan is one of the various statewide modal planning efforts that is the responsibility of the FDOT under the policy guidance of the 2025 Florida Transportation Plan including; the Strategic Intermodal System Strategic Plan, the Seaport System Plan, the Aviation System Plan, and the Transit 2020 Plan. These plans also identify key trends and conditions, needs, and priorities to support periodic updates of the Florida Transportation Plan.

Transportation planning and implementation is the responsibility of a number of public and private entities. The collective efforts of these entities - each with well-defined roles and responsibilities - will be required to achieve the goals of the 2025 Florida Transportation Plan and the Florida Rail System Plan.

To this end, in June 2008, FDOT formed the Rail Stakeholder Advisory Committee, made up of stakeholders representing a wide array of interests, to assist in the development of the Florida Rail System Plan. Members of the Rail Stakeholder Advisory Committee are listed in Table 1. The committee reviewed trends, needs, issues, and opportunities in passenger and freight rail transportation and developed policy recommendations to guide future statewide, regional, and local rail planning, including the integration of rail with land use and other transportation modes.

The Rail Stakeholder Advisory Committee held publicly noticed meetings in Tampa, Tallahassee, Ft. Lauderdale, Jacksonville, and Orlando during the summer and fall of 2008. Two drafting subcommittees were formed and each held two teleconference meetings to refine policy recommendations for consideration by the committee as a whole. Opportunities for additional public input were provided at each committee meeting, as well as through the department's website.

The Florida Rail System Plan will be guided by recommendations of the Rail Stakeholder Advisory Committee, with public input, and will build upon previous rail planning efforts, including the 2006 Florida Freight and Passenger Rail Plan, the work of the Florida High Speed Rail Authority, the 2006 Florida Intercity Passenger Rail Vision Plan, and regional and local rail planning efforts. The plan will be developed in two phases as follows:

- **Phase I** - The Florida Rail System Plan: Policy Element will be adopted by the Secretary of Transportation in early 2009. The Policy Element will be guided by policy

recommendations of the Rail Stakeholder Advisory Committee contained in this report.

- **Phase II** – The Florida Rail System Plan: Investment Element will identify an inventory of needs, establish priorities for the investment of state funds using the policy framework of the Policy Element, and will set forth future action steps necessary to implement the plan. This element will be completed in June 2009.

**Table 1. Rail Stakeholder Advisory Committee Members**

<b>Name</b>	<b>Entity Represented</b>
Debbie Hunt, Chair	Florida Department of Transportation
Marion Hart, Vice-Chair	Florida Department of Transportation
Lester Abberger	1000 Friends of Florida
John Adams	Enterprise Florida
David Anderton	Port Everglades/Florida Ports Council
Commissioner Bruno Barreiro, Miami-Dade County/ Joe Giuliatti	South Florida Regional Transportation Authority
Ben Biscan	Florida Railroad Association
Janet Bowman/Keith Schue	The Nature Conservancy-Florida Chapter
Stan Cann	FDOT District 1, Secretary
Lee Chira/Leila Nodarse	Florida High Speed Rail Authority
Commissioner Ronnie Duncan, Pinellas County	Tampa Bay Regional Transportation Authority
Tom Eschenberg, Mayor of Malabar	Florida League of Cities
John Friedman/John Moon	Norfolk Southern
Drew Galloway	Amtrak
Ann Gordon	Executive Office of the Governor
Richard Kaplan, Mayor of Lauderhill/ Denise Bunnewith	Metropolitan Planning Organization Advisory Council
Christine Kefauver	Central Florida Commuter Rail Commission
Jeff Koons, Palm Beach County Commissioner	Florida Association of Counties
Lisa Mancini	CSX Transportation
Sally Mann/Kelly Layman	Department of Environmental Protection
Marco Marchena/Sally Patrenos	Florida Transportation Commission
Dr. Scott Paine	Citizen Representative
Gus Pego	FDOT District 6, Secretary
Secretary Thomas Pelham	Department of Community Affairs
David Rohal/David Argenbright	FEC Railway
Richard Schuler/Mary Lou Rajchel	Florida Trucking Association
Don Skelton	FDOT District 7, Secretary
Linda Watson	LYNX Transportation – Orlando/Florida Public Transportation Association

## 2.0 Vision and Policy Recommendations

Florida's future economic competitiveness and quality of life require meeting increasing demands for moving people and goods in a sustainable manner. Despite slower growth in population and tourism between 2007 and 2008, due to a slowdown in the state and national economy, continued growth can be expected in the long-term. Our economic growth is also dependent on the movement of raw materials and freight into and within the state, as well as across state lines and through international gateways. Much of this increase in demand has been handled without a corresponding increase in the capacity of our transportation system. As a result, our highways are experiencing high levels of congestion, while our rail systems, airports, and seaports must attempt to keep pace with demand for mobility.

As Florida responds to this increased need for mobility, we must also meet rising business and household expectations for safety, security, efficiency, and reliability while preserving Florida's rich environment and livable communities. Furthermore, uncertainty in the future cost or availability of fossil fuels, as well as the growing awareness of the need to reduce greenhouse gas emissions, suggests a shift towards greater emphasis on rail transportation systems. Physical, environmental, community, and financial (revenue and cost) conditions sometimes limit, and sometimes enhance, our ability to meet these expectations.

Clearly, no single mode of transportation will sufficiently serve the growing demand for the mobility of people and goods in Florida. Therefore, the Rail Stakeholder Advisory Committee recommends a stronger emphasis on a multimodal interconnected system if Florida is to be well positioned to compete globally in the 21st century. The state's rail system, with its inherent energy efficient and environmentally-friendly characteristics, should play a key and increasing role, in partnership with the highway system and other transportation modes, to meet our future mobility needs.

The major issues to be addressed in the future include capacity constraints and the high capital costs to improve the rail system. The 2006 Florida Freight and Passenger Rail Plan called for FDOT to emphasize the following priorities:

- Eliminate chokepoints and improve corridor operations;
- Improve the interaction between rail, seaports and trucking;
- Upgrade shortline railroads to handle industry-standard cars;
- Improve railyard operations and opportunities for passing sidings; and,

- Respond to the increasing demand for passenger rail service while ensuring continued freight access on shared corridors.

The Rail Stakeholder Advisory Committee recognizes the importance of these initiatives and recommends the department continue with these initiatives while placing a greater emphasis on freight and passenger rail in its overall transportation planning process and investment decisions.

This report presents the Rail Stakeholder Advisory Committee's consensus recommendations to the FDOT Secretary for a vision of rail in Florida and a policy framework to support this vision. The policy framework will assist in developing the Phase I Policy Element, which will guide the Phase II Investment Element of the Florida Rail System Plan to set priorities and guide investments in Florida's rail system.

The committee's recommendations are organized around the five goals of the 2025 Florida Transportation Plan.

- Safety and Security
- Quality of Life and Environmental Stewardship
- Preservation and Maintenance
- Mobility and Economic Competitiveness
- Sustainable Transportation Investments

The committee's recommendations are organized within the policy framework of the 2025 Florida Transportation Plan which was adopted in 2005. It is important to note that although these recommendations are guided by the Florida Transportation Plan, they are also intended to look forward to 2030 and, as such, will serve as important input to the next update of the 2025 Florida Transportation Plan.

## Recommended Vision for Rail in 2030

### The Vision of Rail Transportation in 2030

**Florida has a safe, secure, and efficient passenger and freight rail system providing mobility, improving quality of life and promoting economic opportunities and environmental sustainability for Florida.**

*It is the year 2030. Florida's residents, visitors, and businesses enjoy improved quality of life, increased economic opportunities and competitiveness, smart growth in and around urban centers, and greater environmental sustainability. Rail is contributing significantly to all of these by providing safe, and increasingly seamless, interconnected passenger and freight mobility throughout the state, its regions and in many cases its communities, as well as efficient connections to national and international markets. It does this through thoughtful investment strategies, effective public/private and public/public partnerships, and full integration with other modes of transportation*

## Policy Recommendations

### Safety and Security

**2025 Florida Transportation Plan Goal: Provide a safer and more secure transportation system for residents, businesses, and visitors**

Improving the safety of the rail system is one of FDOT's highest commitments to residents and visitors. Between 1998 and 2007, total rail accidents/incidents<sup>15</sup> in Florida decreased more than 14 percent. However, during the same period, trespassing fatalities on rail property increased by more than 43 percent<sup>16</sup>. As demand for mobility on the state's transportation system grows, the probability of accidents, including fatal accidents, is likely to increase.

Furthermore, with rail security becoming a more significant issue following the terrorist attacks of September 2001, FDOT should also work as a partner with other interests to

<sup>15</sup> Total rail accidents/incidents is the sum of train accidents, crossing incidents, and other accidents/incidents.

<sup>16</sup> Federal Railroad Administration, Office of Safety Analysis

enhance rail security. Continued close coordination and consultation with key agencies including the U.S. Department of Homeland Security and the Florida Department of Law Enforcement is needed to protect Florida's rail network from potential acts of terrorism and theft.

Rail can also play a critical role in emergency preparedness and response efforts, such as the delivery of critical supplies and relief personnel and the evacuation of large numbers of people from harm's way. The Florida Department of Community Affairs' Division of Emergency Management has lead responsibility for emergency preparedness at the state level. However, FDOT and other transportation providers (including railroad companies) also have an important role in managing the system during evacuations and assisting with emergency response and recovery activities as well as ensuring a rapid return of commerce following an event.

The use of new technologies can lead to improved rail operations and safety. An example of such technology is "positive train control" in which a train receives information about its location and where it is allowed to travel safely. Recently enacted federal legislation (H.R. 2095) requires certain Class I railroads and intercity and commuter railroads to implement positive train control by December 31, 2015.

The Florida Department of Transportation should continue to collaborate with key partners and agencies at the federal, state, and local levels as well as the private sector to ensure investments help to improve security and reduce highway-rail crossing and other rail corridor accidents and fatalities. More specifically, FDOT should continue to work in concert with the Secretary of the United States Department of Transportation and implement the safety and security provisions of H.R. 2095: The Rail Safety Improvement Act of 2008.

### **Objective #1: Reduce rail-related accidents and fatalities.**

#### **Recommended Policies**

- A. Continue to identify and support safety improvements to railroad-highway grade crossings, signals, and tracks and monitor progress toward the reduction of accidents and fatalities.
  - a. In cooperation with local authorities, conduct highway-rail crossing studies to help identify crossings that are candidates for closure.
  - b. Promote the use of intelligent transportation systems and other system management strategies and technologies, including positive train control and the creation of quiet zones in residential areas.
  - c. Continue to identify and fund crossing signal improvements.
  - d. Continue to identify and support track and track signal improvements.
  - e. Continue to consider and, where appropriate, implement grade separations for future rail facilities.
- B. Increase public awareness of rail safety issues, including rail crossing safety and trespassing, through education campaigns.

- a. Continue to support the Florida Operation Lifesaver program.
- b. Extend rail public outreach efforts to law enforcement agencies and community organizations, such as organizations for the homeless, to help reduce trespassing fatalities on rail facilities.
- C. Identify public/private and public/public partnership opportunities at the federal, state, and local levels to fund safety improvements.

**Objective #2: Ensure the passenger and freight rail system is secure.**

**Recommended Policies**

- A. Continue to identify and implement security strategies for railroads. (I-G)
  - a. Support on-going federal legislative efforts to improve rail security.
  - b. Coordinate with the Federal Railroad Administration, the Federal Transit Administration, the U.S. Department of Homeland Security, the Florida Department of Law Enforcement, local law enforcement agencies, and railroads to plan and implement rail security requirements and strategies.
- B. Identify public/private and public/public partnership opportunities at the federal, state, and local levels to fund security improvements.

**Objective #3: Ensure the rail system can respond to emergencies.**

**Recommended Policies**

- A. In coordination with federal, state, and local emergency plans and railroad companies:
  - a. Continue to identify highway-rail grade crossings that are candidates for temporary closure in relation to emergency events.
  - b. Identify alternative power sources and other measures to guide highway/rail traffic in the event of loss of electricity at signalized rail grade crossings.
  - c. Participate in the implementation of approved plans for the use of rail in emergencies to evacuate people, deliver supplies and relief personnel, and assist in recovery efforts.

**Quality of Life and Environmental Stewardship**

<b>2025 Florida Transportation Plan Goal: Enriched quality of life and responsible environmental stewardship</b>
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The delicate balance between the provision of transportation capacity, community livability, and resource protection is becoming more challenging, as demand for the mobility of people and freight continues to rise and choices for locating new development, redevelopment, and infrastructure become more constrained.



Florida's continued population growth and economic expansion can be attributed in large part to the state's high quality of life and natural amenities. Improvements to and expansion of the rail network are and will continue to be essential to accommodating residents and visitors, attracting additional business investment, and efficiently moving people and goods throughout the state. Rail transportation can also play an important role in helping to reduce greenhouse gas emissions<sup>17</sup>. New development or improvements to the rail system can, however, impact the built and natural environments. Therefore, it is important to ensure transportation planning is integrated and coordinated with land use, resource protection, and economic development planning at the state, regional, and local levels.

Because transportation can play such a critical role in shaping future growth, rail investments must also be integrated with regional and community visions and for future growth. Rail transportation offers important environmental advantages due to its inherent energy and infrastructure efficiencies, as well as its potential to facilitate sustainable, compact transit-oriented development. From both an environmental and quality of life perspective, Florida should place a greater emphasis on rail transportation in the future.

**Objective #4: Support responsible land use strategies.**

**Recommended Policies**

- A. Develop a cohesive approach for the integration of rail and land use at the state, regional, and local levels. (Committee Members Suggestion at Meeting in Jacksonville)
  - a. At the state level, the Florida Department of Transportation should work cooperatively with the Department of Community Affairs and other agencies to integrate long-range statewide growth management and transportation plans. This effort should lead to the creation of a state framework for land use and infrastructure which is supportive of rail and provides incentives for integration of rail and land use at the regional and local levels. These incentives should include but not be limited to:
    - 1. Incentives to local governments for land use decisions that support Transit-Oriented Development and Urban Infill, where appropriate.
    - 2. Reforming the transportation concurrency system to allow greater flexibility for local governments to pursue rail projects, considering alternatives such as weighted concurrency credits, concurrency bonuses, or a broadly assessed alternative mobility fee.
  - b. At the regional level, encourage regional planning councils, regional transportation authorities, and metropolitan planning organizations to coordinate their efforts to integrate regional and local plans in support of freight and passenger rail, and to advance rail initiatives.

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<sup>17</sup> Florida's Energy & Climate Change Action Plan  
October 15, 2008

- c. At the local level, encourage land use plans and programs that are conducive to the creation of sustainable rail-oriented communities and economies, where appropriate. For example, local governments should be encouraged, where appropriate, to:
  - 1. Adopt minimum densities within designated urban service areas to support rail.
  - 2. Provide compact mixed-use urban development at transit and rail stations to make passenger rail a feasible alternative mode of transportation.
- B. Review and implement, where appropriate, land use practices and programs that have been successful in other states and countries to support rail and effectively integrate various modes of transportation.
- C. The Department of Transportation should evaluate the positive and negative impacts of expanding existing and creating new rail facilities on local communities and quality of life to guide future investments in rail. Key factors that should be evaluated include:
  - a. Transportation delay and highway vehicle miles traveled.
  - b. Noise pollution.
  - c. Air quality and greenhouse gas emissions.
  - d. Protected species and land conservation.
  - e. Safety and security.
  - f. Smart growth, infill development, and redevelopment.

**Objective #5: Support responsible environmental stewardship.**

**Recommended Policies**

- A. Ensure the coordination and integration of transportation, land use, planning, and resource protection at the state, regional, and local levels to address the sprawl-reducing benefits and infrastructure efficiencies of compact growth, the ecosystem service benefits of protecting functioning natural systems, and the air quality, carbon reducing, and energy conserving benefits associated with rail transportation.
- B. Evaluate and highlight the environmental benefits of rail compared to other transportation options at the state, regional, and local levels. These benefits include, but are not limited to, reductions in greenhouse gas emissions by motor vehicles, energy and infrastructure efficiencies, more compact growth, and land conservation.
  - a. Consider the benefits of rail in designing a carbon credits program.
  - b. Where appropriate, make explicit in state, regional, and local plans the environmental impacts of various different modal choices in corridor and regional planning.
  - c. Make explicit the environmental benefits of rail transportation in project level assessments.

- d. Inform the public and policymakers about the environmental and other benefits of rail to increase the understanding of and support for rail.
- C. Improve coordination between state, regional, and local agencies and stakeholders to identify environmental issues early in the rail planning process, before significant effort and costs are incurred.
  - a. Expand the use of the Efficient Transportation Decision Making (ETDM) process by the Florida Department of Transportation and other regional and local transportation agencies, where applicable, for early coordination of rail project and corridor review to identify potential environmental issues.
- D. Further enhance the environmental benefits of rail by supporting the reduction of air emissions associated with rail transportation.
  - a. Support increased deployment of innovative U.S. Environmental Protection Agency (EPA)-approved carbon-reducing technology for hybrid and Genset locomotives.
  - b. Encourage participation in the EPA SmartWay<sup>SM</sup> program for rail. This program provides a wide array of fuel-saving techniques for truck and rail companies as well as measures for states to adopt.

## **Maintenance and Preservation**

<b>2025 Florida Transportation Plan Goal: Adequate and cost-efficient maintenance and preservation of transportation assets</b>
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Significant investments are required to address statewide needs for rail line and structure maintenance, including bridge rehabilitation, rail, and tie replacement, resurfacing, and maintaining to good repair crossings, signs, and signal systems. There is also a need to update and modernize signal and communication systems for accommodation of passenger service and to maximize the capacity of the existing rail infrastructure for freight. This includes the modernization of track to accommodate heavier rail cars since some short line railroads are not yet able to accommodate the industry standard 286,000-pound rail car.

In addition, continued fiscal pressures have led some rail carriers to abandon previously active corridors or suspend service. Since 2004, five railroads petitioned the Surface Transportation Board for permission to abandon tracks in Florida. Some abandoned corridors have been preserved as rail corridors, but others have been converted to other uses. Therefore, it is important to encourage the long-term preservation of existing passenger and freight rail corridors and rights of way for future appropriate use.

**Objective #6: Preserve, maintain, and modernize the rail system when public benefit can be demonstrated.**

**Recommended Policies**

- A. Continue to invest in rail system infrastructure and service, such as the current financial assistance for shortline railroads to achieve 286,000-pound rail car weight standards, as well as other track and signal improvements where appropriate.
- B. Continue to identify and support rail bridge replacements and improvements, where appropriate.
- C. Continue to support the modernization of the rail system for better and more efficient service such as promoting the use of intelligent transportation and other system management strategies and technologies.
- D. Encourage the long-term preservation of existing passenger and freight rail corridors and rights of way for future appropriate use.

**Mobility and Economic Competitiveness**

**2025 Florida Transportation Plan Goal: A stronger economy through enhanced mobility for people and freight**

Florida's economy is largely driven by population growth, tourism, and agriculture as well as expanding trade and business sectors. Despite slower population growth and a decrease in the rate of growth of tourism between 2007 and 2008 due to a slowdown in the national economy, demographic and economic growth trends are expected to continue to exceed the national average. According to the Bureau of Economic and Business Research at the University of Florida, Florida's population is estimated to grow by over 35 percent between 2007 and 2030, effectively adding over 6.6 million new residents. Population growth is also projected to occur in all regions of the state. The expected increase in population growth indicates a need for greater transportation capacity to accommodate the long-distance and interregional movement of people and goods.

The growth in population, tourism, and employment is also likely to increase the demand for service-oriented industries including retail trade, finance, real estate, business, professional, and hospitality services. Further, Florida's largely consuming nature, requires a greater than average amount of imported goods. Growing economic needs will place even more demands on the transportation system in general and the rail network more specifically.

Service industries tend to move higher value, more time sensitive goods, and rely on the efficient and reliable movement of business travelers. These industries often keep inventories low to reduce costs, but this requires a dependable supply chain. The trucking industry has historically dominated these types of shipments, but railroads have responded to this demand by offering scheduled services and improved reliability. Consequently, containers and trailers filled with goods supporting service industries

exhibit the greatest growth rate in the rail industry. The movement of freight by rail could also provide an opportunity for the expansion of export-related industries.

Investments in freight rail capacity are largely dependent on market conditions and the willingness of the private railroads to invest in services and infrastructure. Florida's private freight railroads meet market demands, but also recognize the rail system's capacity could become insufficient under particular future scenarios. These scenarios include:

- a significant shift in freight demand from truck to rail;
- rapid growth in domestic or international trade through Florida's seaports and connecting to the rail system; or,
- Significant growth in passenger rail service on existing freight lines.

These potential scenarios would impact the rail system in different ways depending on which region of the state the scenario occurs. The following key factors may affect whether the rail system has sufficient operational capacity:

- the presence of chokepoints;
- capacity constraints at terminals and connectors;
- the physical condition of existing rail track and bridges, such as the ability to accommodate modern, 286,000-pound freight cars; and,
- encroachment on rail corridors and terminals by incompatible land uses which may lead to public pressure for limitations on hours of operation due to noise, vibration, and other impacts.

Because of its fixed infrastructure, the freight rail industry will respond to increases in demand initially through operational measures. There is some potential to create new rail corridors on existing or new right of way, or to reevaluate the use of abandoned rail corridors, but these types of capacity measures will take time to implement.

From a passenger rail perspective, public interest in rail options to meet intercity and regional mobility needs is rising. Passenger rail will steadily become more important as an alternative to the congestion on Florida's highways and increase the mobility of tourists, business travelers, and citizens, especially older Floridians. Furthermore, the concerns over dependence on foreign oil, fluctuating gas prices, and fuel supply disruptions as a result of natural disasters is likely to increase the reliance on transit (commuter rail, heavy rail, light rail, and bus) as an alternative to the automobile for commuting. According to the American Public Transportation Association, transit ridership increased nationally in the first quarter of 2008 compared to the first quarter of 2007. Light rail systems and bus transit systems experienced a 10.3 percent and 2.2 percent increase in ridership respectively. Amtrak ridership reached 25.8 million passengers nationwide in fiscal year 2007 and its national long-distance service increased by over 10 percent in each of the last two years. The significant increases in patronage for the Tri-Rail commuter rail service has been discussed previously.

Several initiatives to create or expand commuter rail service are underway statewide, including plans for the Central Florida Commuter Rail Transit service as well as studies of a new coastal service along the Florida East Coast Railway in south Florida and new services in northeast Florida, southwest Florida, and Tampa Bay. These regional initiatives require recurring funding sources.

**Objective #7: Invest in rail capacity improvements to enhance the interstate and intrastate movement of passengers and freight when public benefit can be demonstrated.**

**Recommended Policies**

- A. Continue to support expansion of an interconnected multimodal system to enhance interstate and intrastate movement of freight and passengers, with rail playing a critical role, when public benefits can be demonstrated.
- B. Promote the integration of state and national multimodal transportation systems using rail to allow for the convenient movement of passengers and freight between centers of population and commerce with reduced dependence on road transport.
- C. Promote smooth and efficient transfers for both people and freight between rail corridors and hubs and other transportation modes within the state.
  - a. Connect Florida's railroad system to the state's multimodal transportation system.
  - b. Improve system integration between freight and passenger rail and connections with other modes of transportation.
  - c. Provide for seamless connections of intra-city and inter-city rail to local transit systems.
- D. Continue to promote better coordination and understanding of other ongoing statewide planning efforts including the Florida Transportation Plan, the Strategic Intermodal System Plan, and other modal plans for seaports, airports, and transit for better consistency and integration among the various modes of transportation.
- E. Continue to coordinate the planning and design of new infrastructure to address mixed-use facilities, capacity improvements, and impacts on communities.
- F. Reduce delay and improve the service reliability of rail facilities.
- G. Where appropriate, preserve existing and new capacity on highway and rail rights-of-way for future freight and passenger rail needs.
- H. Reevaluate all abandoned rail corridors for possible future use by freight or passenger rail service, and carefully consider the need for future rail services on presently unused rail corridors before allowing for their abandonment or conversion to other purposes.

**Objective #8: Ensure rail investments support and spur desired economic growth.**

**Recommended Policies**

- A. Strengthen coordination with economic development agencies to ensure rail investments support and spur desired economic growth. Rail investments should:
- Promote and support better communication between the Florida Department of Transportation modal offices and districts, Regional Planning Councils, Metropolitan Planning Organizations, Regional Economic Development Organizations, and other agencies to explore and respond to rail opportunities
  - Create a new model, structure, or forum to bring together policy makers and business and economic development leaders to constructively address mutual issues and opportunities related to integrating rail into the overall transportation system and supporting the economic needs of both people and businesses.
  - Connect the economic regions of the state, in coordination with regional and community visions.
  - Promote economic and industrial development at appropriate points along existing and new freight rail corridors.
    - Promote transit-oriented and mixed used developments, where feasible.

**Sustainable Investments**

<b>2025 Florida Transportation Plan Goal: Sustainable transportation investments for Florida's future</b>
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Florida's transportation system is facing significant challenges as demand for moving people and freight continues to rise; the cost of constructing, operating, and maintaining transportation infrastructure increases; and growth in available revenues slows. The result is a growing gap between investment needs and available funds.

Examples of Florida's rail system needs include improvements to passenger stations and freight rail terminals; improvements on highway connections to intermodal passenger and freight rail terminals; double tracking; signaling and communication system upgrades; grade separations; the construction of other capacity improvements; the extension of Tri-Rail passenger service in Palm Beach County; and, the implementation of the planned Central Florida Commuter Rail Transit Service. In addition, preliminary plans have been developed for statewide passenger rail service connecting the largest urban areas in the state.

For Florida to promote economic competitiveness and keep pace with investments in both passenger and freight rail occurring elsewhere in the nation, the Florida Department of Transportation should promote public awareness of the need for state and regional investments in rail and aggressively pursue opportunities for funding rail projects in cooperation with leaders at the local, regional, state, and national levels.

**Objective #9: Achieve broad public support for investments in the rail system.**

**Recommended Policies**

- A. Develop an initial review process to seek public input and establish public and political support for proposed rail corridors, including hubs and stations, early in the conceptual phase of rail projects to foster opportunities for success. The process would be convened by an appropriate public entity, such as the Florida Department of Transportation, for inter-regional projects or a regional entity for a two or three county project.
- B. Encourage streamlined permitting processes for rail projects.
- C. Promote understanding of the economic, growth management, and environmental benefits of rail.
- D. Develop or disseminate information on studies demonstrating the return on investment (both financial and non-financial returns) of rail transportation projects.
- E. Support alternative studies to help the public better understand the Florida Department of Transportation's investment decisions and the value/cost of investing in a variety of projects including rail.
- F. Expand project assessment methodology tools and ensure they are used to help prioritize and rank projects eligible for funding.
  - a. Conduct benefit analyses between modes and between project alternatives within the same mode to help make more informed investment decisions and prioritize projects. These analyses should compare rail investments with the cost of "doing nothing".
  - b. Include the full range of mobility, economic growth, quality of life, environmental, safety, and other important factors in the benefit analysis such as:
    - 1. Private, partner, and public support
    - 2. Density and intensity
    - 3. Impact on land use and the potential for shaping land use in desirable ways
    - 4. Impact on quality of life
    - 5. Environmental impacts including as greenhouse gas emissions and harmful pollutants, land conservation, protected species, ecosystem connectivity, etc.
    - 6. Larger, multi-jurisdictional impacts/benefits
    - 7. Regional and statewide needs
    - 8. Cost per unit, both for passenger and freight projects
    - 9. Return on investment (both financial and non-financial implications)
    - 10. Highway safety benefits resulting from rail investments that expand passenger and freight movement options.



**Objective #10: Maximize the use of state and federal funding programs**

**Recommended Policies**

- A. Capitalize on all available opportunities at the local, regional, and state levels to capture federal funding for passenger and rail.
  - a. Improve flexibility in state plans and procedures to optimize opportunities to obtain and use federal dollars for rail projects.
  - b. Support and expand funding from existing federal rail programs; including federal tax credits to Class I, II, and III railroads, the American Association of Railroads Growth Option for the 21<sup>st</sup> Century (GO 21) program, the Railroad Rehabilitation and Improvement Financing program, the Passenger Rail Investment and Improvement Act of 2008, Capital Grants for Rail Line Relocation, Transportation Infrastructure Finance, and Innovation Act (TIFIA) and State Infrastructure Bank (SIB).
  - c. Work with federal and multi-state coalitions to review and expand the allocated share of federal transportation funds to rail projects.
- B. Reevaluate the current allocation of state transportation funds to rail projects.
  - a. Rail projects should be evaluated as part of an overall multi-modal transportation policy that looks at the potential benefits of all modes when looking for the best way to meet a particular need.
  - b. Review the policy for the distribution of Strategic Intermodal System (SIS) funds as it relates to highways, rail, and other modes of transportation.
    - 1. Ensure SIS criteria are comparable across modes.
    - 2. Support an increased emphasis on the role of rail in the transportation system by making additional components of the rail system eligible for SIS funds.
  - c. Encourage the expenditure of Transportation Regional Incentive Program (TRIP) funds on regional, multimodal projects.
- C. Promote the benefits of regional coordination to more effectively seek and obtain additional funding through federal and state programs.

**Objective #11: Identify new and alternative revenue sources and financial tools**

**Recommended Policies**

- A. Identify new and innovative ways for Florida and its communities to fund capital, operation, and maintenance of rail projects by:
  - a. Providing incentives for rail projects that reduce delay and improve connectivity between modes, promote environmental stewardship, encourage desirable land use, and promote economic growth.
  - b. Encouraging public and private funding of rail needs through state, regional, and local resources, including but not limited to legislative means and local options.

- c. Ensuring no on-going diversion of State Transportation Trust Fund dollars.
- B. Consider public-private partnerships to fund rail projects when in the public interest. (Committee Members Suggestion at Meeting in Jacksonville)
  - a. Utilize concise transparent processes available for public review for negotiating efficient and effective public-private partnerships and respect legitimate private concerns for confidentiality and public concerns for disclosure.
  - b. Ensure the public investment in a public-private partnership is commensurate with the private benefit.
  - c. Evaluate the advantages and disadvantages of public-private partnerships during the early conceptual stages of rail projects.
  - d. Inform the public of the advantages and disadvantages of public-private partnerships.
- C. Develop a mechanism to reserve public funds to respond rapidly to opportunities involving public-private partnerships. Develop a mechanism to disseminate information about available public funds to potential private partners.

# Appendix B

## Enabling Legislation for the Florida Rail System Plan

**Florida Law:** The Florida Rail System Plan is mandated by Subsection (3) of Section 341.302 Florida Statutes, as follows:

**341.302 Rail program, duties and responsibilities of the department.**--The department, in conjunction with other governmental units and the private sector, shall develop and implement a rail program of statewide application designed to ensure the proper maintenance, safety, revitalization, and expansion of the rail system to assure its continued and increased availability to respond to statewide mobility needs. Within the resources provided pursuant to Chapter 216, and as authorized under Title 49 C.F.R. part 212, the department shall:

(3) Develop and periodically update the rail system plan, on the basis of an analysis of statewide transportation needs. The plan shall be consistent with the Florida Transportation Plan developed pursuant to Section [339.155](#). The rail system plan shall include an identification of priorities, programs, and funding levels required to meet statewide needs. The rail system plan shall be developed in a manner that will assure the maximum use of existing facilities and the optimum integration and coordination of the various modes of transportation, public and private, in the most cost-effective manner possible. The rail system plan shall be updated at least every 2 years and include plans for both passenger rail service and freight rail service.

**Federal Law:** On October 16, 2008, President Bush signed into law H.R. 2095, which is comprised of three Acts: The Rail Safety Improvement Act of 2008, the Passenger Rail Investment and Improvement Act of 2008, and the Clean Railroads Act of 2008. This legislation contains a number of provisions related to rail safety in the United States, provides funding authorization to encourage the development of new and improved intercity passenger rail service (including high speed rail corridor development), and links federal rail grants to state rail plans. The following provisions of the new law relate to state rail plans.

Purpose of state rail plans:

- To set forth State policy involving freight and passenger rail transportation, including commuter rail operations, in the state.
- To establish the period covered by the state rail plan.
- To present priorities and strategies to enhance rail service in the state that benefits the public.

- To serve as the basis for federal and state rail investments within the state.

Content of state rail plans:

Each state rail plan shall, at a minimum, contain the following:

- An inventory of the existing overall rail transportation system and rail services and facilities within the state and an analysis of the role of rail transportation within the state's surface transportation system.
- A review of all rail lines within the state, including proposed high-speed rail corridors and significant rail line segments not currently in service.
- A statement of the state's passenger rail service objectives, including minimum service levels, for rail transportation routes in the state.
- A general analysis of rail's transportation, economic, and environmental impacts in the state, including congestion mitigation, trade and economic development, air quality, land-use, energy-use, and community impacts.
- A long-range rail investment program for current and future freight and passenger infrastructure in the state that meets the requirements of subsection (b).
- A statement of public financing issues for rail projects and service in the state, including a list of current and prospective public capital and operating funding resources, public subsidies, state taxation, and other financial policies relating to rail infrastructure development.
- An identification of rail infrastructure issues within the state that reflects consultation with all relevant stakeholders.
- A review of major passenger and freight intermodal rail connections and facilities within the state, including seaports, and prioritized options to maximize service integration and efficiency between rail and other modes of transportation within the state.
- A review of publicly funded projects within the state to improve rail transportation safety and security, including all major projects funded under section 130 of title 23.
- A performance evaluation of passenger rail services operating in the state, including possible improvements in those services, and a description of strategies to achieve those improvements.
- A compilation of studies and reports on high-speed rail corridor development within the state not included in a previous plan under this subchapter, and a plan for funding any recommended development of such corridors in the state.

# Appendix C

## Glossary and Acronym Guide to Commonly Used Terms

**AAR** – Association of American Railroads. An association of private rail carriers founded to promote cooperation among the rail carriers; headquartered in Washington, D.C.

**AASHTO** – American Association of State Highway and Transportation Officials. AASHTO is a nonprofit, nonpartisan association representing highway and transportation departments in the 50 states, the District of Columbia, and Puerto Rico. It represents all five transportation modes: air, highways, public transportation, rail, and water. Its primary goal is to foster the development, operation, and maintenance of an integrated national transportation system.

**Abandonment** – Elimination of a line segment from a rail network. Abandonments must be approved by the Surface Transportation Board (STB).

**AGR – Alabama and Gulf Coast Railway.** A Class III railroad with operations in Florida.

**“A” Line** – A former Atlantic Coast Line, which along with the “S” Line forms CSX Transportation’s major north-south lines terminating in central Florida. Between Jacksonville and central Florida, the “A Line” is the eastern CSXT line, passing through Pecan, Seville, Orange City, Sanford, Orlando, etc.

**Amtrak** – National Railroad Passenger Corporation. The U.S. operator of intercity passenger rail service. Amtrak has provided intercity and long-distance services to Florida for more than 35 years.

**AN** - AN Railway. A Class III railroad with operations in Florida.

**APTA** – American Public Transportation Association. An international organization that has been representing the transit industry since 1882. APTA members include bus, rapid transit and commuter rail systems, and the organizations responsible for planning, designing, constructing, financing, and operating transit systems.

**BAYL** - Bayline Railroad. A Class III railroad with operations in Florida.

**Branch Line** – A secondary line of a railway, typically stub-ended and designed to provide service to a customer.

**Carbon credit** - A voucher that represents reductions in carbon dioxide and other greenhouse gases to companies that reduce emissions for sell or trade to companies that

cannot reduce their own. A sustainability tool that aims to regulate carbon dioxide emissions and help reduce global pollution.

**Commercial motor vehicle** – Any self-propelled or towed vehicle used on the public highways in commerce to transport passengers or cargo, if the vehicle has a gross vehicle weight of 10,000 pounds or more; or is designed to transport more than 15 passengers, including the driver; or is used to transport hazardous materials as defined by law.

**Common carrier** - Railroads, trucking companies and other freight companies that transport people, goods, or services to the general public without discrimination under license or authority provided by a regulatory body. A major issue for railroads is the obligation to provide transportation or service on reasonable request for hazardous materials.

**Container** – A large, weatherproof box designed for shipping freight in bulk by rail, truck, or steamship. Standard lengths include 20 ft, 40 ft, 48 ft, and 53 ft.

**Containerized Cargo** – Cargo that is practical to transport in a container, and results in a more economical shipment than other forms of unitization.

**Crossing Signal** – A safety sign that indicates when and when not to cross a railroad, usually at a highway-rail crossing. When the crossing signal is activated, it generally means a train is coming on the track and signals to motorists and pedestrians to not cross the tracks.

**CSXT** – CSX Transportation. A Class I railroad, and one of the four largest railroads in the U.S. (along with BNSF, NS, and UP). CSXT, headquartered in Jacksonville, is the largest railroad operating in Florida.

**Deficiency** – A constraint in the transportation system which decreases the efficiency of the system. Deficiencies can include congestion; geometric limitations such as speed, height, or width restrictions; or facility conditions that restrict use or operations.

**Dray** – A local move of a trailer or container by truck, especially between a rail yard or port and a customer.

**Economically distressed areas** – An area of the state characterized by factors such as low per capita income, low per capita taxable values, high unemployment, high underemployment, low weekly earned wages compared to the state average, low housing values compared to the state average, high percentages of the population receiving public assistance, high poverty levels compared to the state average, and a lack of year-round stable employment opportunities.

**EIS** – Environmental Impact Statement.

**EPA** – Environmental Protection Agency

**ETDM** – Efficient Transportation Decision-making. A Florida Department of Transportation initiative to improve and streamline the environmental review and permitting process by involving resource protection agencies and concerned communities from the first step of planning. Agency interaction continues throughout the life of the project, leading to better quality decisions and an improved linkage of transportation decisions with social, land use and ecosystem preservation decisions.

**FCEN** – Florida Central Railroad. A Class III railroad with operations in Florida.

**FCRD** – First Coast Railroad. A Class III railroad with operations in Florida.

**FDOT or Florida DOT** – Florida Department of Transportation.

**FEC** – Florida East Coast Railway. A Class II railroad operating entirely within the State of Florida.

**FEU** – Forty-Foot Equivalent Units. This is a common measure for containerized freight movements, though TEU (20-foot equivalent units) is the standard measure.

**Federal Highway-Rail Grade Crossing Program (Section 130)** – Provides funds for road-rail grade crossing safety improvement and education.

**FHWA** – Federal Highway Administration.

**FMID** – Florida Midland Railroad. A Class III railroad with operations in Florida.

**FNOR** – Florida Northern Railroad. A Class III railroad with operations in Florida.

**FRA** – Federal Railroad Administration. The FRA is a division within the U.S. Department of Transportation (DOT) which is responsible for conducting and monitoring research regarding freight and passenger rail operations, and enforcing Federal programs for railroad safety. The FRA is generally responsible for administering all Federal programs related to rail transportation.

**FRA Track Classes** – Federal Railroad Administration Track Classes. The FRA limits operating speeds on track based on physical condition.

**Freight** – Any commodity being transported.

**Freight Villages** – Large logistics centers forming a central point for all rail shipments (intermodal, auto, general merchandise) and act as facilitators to attract manufacturing businesses wishing to relocate to lower logistics costs; they also create secondary jobs in warehouses, distribution centers, manufacturing, packaging plants, and other value-added businesses. Same as an integrated logistics center (ILC).

**FTA** – Federal Transit Administration.

**FWCR** – Florida West Coast Railroad. A Class III railroad with operations in Florida. In June of 2004, the STB granted the FWCR approval to abandon all service, though the railroad is still operating a limited service.

**FY** – Fiscal Year.

**Genset locomotive** - An environmentally-friendly locomotive that was built to help reduce locomotive emissions by combining several small modules called a generator set, or genset, to replace the conventional diesel engine. The locomotive is powered by ultra low-emissions, off-road diesel engines that are EPA tier III certified, to reduce nitrous oxide and particulate emissions. These engines are easily replaceable and work in combinations of one or more gensets to produce the required horsepower levels to run the locomotive.

**GFRR** – Georgia and Florida Railway. A Class III railroad with operations in Florida.

**GPS** – Global Positioning Systems. Use of satellites and advanced communications technology to accurately locate and track items on the globe. Can be used by drivers, transit operators, and trucking companies to locate vehicles and provide alternative routes.

**Grade Crossing** – The point at which a roadway intersects and crosses a rail line. The crossing can be at-grade or grade separated.

**GSP** – Gross State Product. The total value of all products and services produced in a state.

**Headway** – The time interval between consecutive vehicles passing a given point. Generally used to define transit service. Used in the following context: “Peak-period transit buses and trains generally run on five-minute headways.”

**Intermodal**– Carriage by more than a single mode with a transfer(s) between modes to complete a trip or a freight movement. For freight and goods movement, the definition refers to transfers between all freight modes, including ships, rail, truck, barge, etc., taken as a system for moving freight.

**Intermodal System** – The transportation network consisting of public and private infrastructure for moving people and goods using various combinations of transportation modes.

**Interstate** – Traffic originating in one state and terminating in another. Foreign and domestic port (import and export) traffic also is considered to be interstate in nature.

**Intrastate** – Traffic originating and terminating in a single state. This traffic also is referred to as local.

**Intrastate Carrier** – A carrier operating solely within the boundaries of a single state; e.g., the Florida East Coast Railway (FEC).



**ITS** – Intelligent Transportation Systems. Using technology to integrated advanced information, electronic communications, and other technologies to address transportation problems and improve the efficiency of the transportation system.

**Local Traffic** – Freight or passenger movements both originating and terminating in a region. If the region is defined as a state, local traffic represents intrastate traffic.

**Long-Range Component** – The long-range part of the Florida Transportation Plan, updated at least every five years, or more often as needed, to reflect changes in the issues, goals, and long-range objectives for the ensuing 20 years.

**Long-range goal** – A long-term (20-25 years) end toward which programs and activities are ultimately directed.

**Long-range objective** – A long-term (20-25 years) general end which is achievable and marks progress toward a goal.

**LRFA** – Local Rail Freight Assistance Program. A Federal program designed to provide assistance (funding) for light-density rail lines.

**LRT** – Light Rail Transit.

**LRV** – Light Rail Vehicle.

**LTL** – Less-Than-Truckload. The quantity of freight which is less than required for application of a trailerload rate. LTL carriers, such as Yellow Freight, will combine shipments from multiple customers into a single truck.

**Main Line** – Two definitions apply. First is a designation made by each railroad of its own track, generally signifying a line over which through trains pass with relatively high frequency. A main line generally has heavier weight rail, more sophisticated signaling systems, and better maintenance than branch lines. The second is a designation of the through track between any two points, even on a branch line, as distinguished from sidetracks, pass tracks, or spurs.

**Maintenance** – Actions taken to preserve the state’s transportation infrastructure investment (e.g., resurfacing pavements of roadways and airport runways, repairing and replacing bridges, continuing existing transit routes and frequency) to eliminate deficiencies and to extend/achieve the expected life of facilities before, for example, reconstruction is needed.

**MPO** – Metropolitan Planning Organization (MPO). An organization made up of local elected and appointed officials responsible for coordinating transportation planning in a metropolitan area of at least 50,000 people.

**Mobility** – The degree to which the demand for the movement of people and goods can be satisfied. Mobility is measured in Florida by the quantity, quality, accessibility, and utilization of transportation facilities and services.

**Mode** – Any one of the following means of moving people or goods: aviation, bicycle, highway, paratransit, pedestrian, pipeline, rail (commuter, intercity passenger, and freight), transit, space, and water.

**Mobility** – The ability of people to complete desired trips, or for goods to be moved from place to place.

**Modal Share** – The percentage of freight or passengers moved by a particular type (mode) of transportation.

**Mode Shift** – The change in mode by an individual person or freight shipment. A person may shift modes when the relative cost in terms of time, money, and convenience between modes changes. For example: if transit fares were reduced, people who once drove alone to work may decide to take the bus instead. Mode shifts can also occur between air, truck, rail, and water movement of freight.

**Multimodal Transportation** – More than one mode to serve transportation needs in a given area.

**Need** – A demand for a mobility improvement which has been identified based on accepted and adopted standards and other assumptions (e.g., land use) and documented in a formal long-range or master plan.

**NS – Norfolk Southern Railroad.** A Class I railroad, and one of the four largest railroads in the U.S. (along with BNSF, CSXT, and UP). NS, headquartered in Roanoke, VA, offers service to Jacksonville and northern locations in Florida.

**Operating Revenue** – All revenue generated through the operation of transportation services.

**Operation Lifesaver** – Operation Lifesaver is a national, nonprofit education and awareness program dedicated to ending tragic collisions, fatalities, and injuries at highway-rail grade crossings and on railroad rights-of-way.

**Originating Traffic** – Includes both outbound and local traffic in Florida.

**Outbound Traffic** – Traffic originating in one region which terminates in another region. Typically used in this report to represent interstate traffic originating in Florida.

**Peak-Hour** – The hour of the day during which the volume is higher than at any other hour during the day.

**Peak-Period** – The time period having the highest volume of traffic in a day. For example, the peak-period for urban highways is generally between 6:00 a.m. and 9:00 a.m.

**Positive Train Control System** – The term ‘positive train control system’ means a system designed to prevent train-to-train collisions, over-speed derailments, incursions into established work zone limits, and the movement of a train through a switch left in the

wrong position. The main concept in Positive Train Control (as defined for North American Class I freight railroads) is that the train receives information about its location and where it is allowed to safely travel. Equipment on board the train then enforces this, preventing unsafe movement. Positive Train Control will work in either dark or signaled territory. The core objectives of PTC are to keep trains from hitting trains; to keep trains from overspeeding; and to keep trains from endangering workers in work zones.

**PPP – Public-Private Partnership.** Public agencies and private industry working together to solve transportation problems.

**Preservation** – Actions taken to protect existing natural and human environments, investments, and mobility options.

**Rail** – A rolled steel shape, commonly a Tee-section designed to be laid end-to-end in two parallel lines on cross ties or other suitable supports to form a track for railway rolling stock.

**Rail Yard** – A system of tracks within limits provided for switching cars, making up trains, storing cars, and other purposes.

**Region** – An area of distinctive communities, cities, and counties where residents share: a geographic identity and are socially, economically, and culturally interdependent; a capacity for planning and function; and a capacity to create competitive advantage.

**Rights-of-Way (ROW)** – A strip of land for which an entity has a right to build, operate, and maintain a linear facility such as a road, railroad, or pipeline.

**RRIF** – Railroad Rehabilitation and Improvement Financing Program. The program provides direct loans and loan guarantees to state and local governments, government sponsored authorities and corporations, railroads, and joint ventures which include at least one railroad. Eligible projects include: 1) acquisition, improvement, or rehabilitation of intermodal or rail equipment or facilities (including tracks, components of tracks, bridges, yards, buildings, and shops); 2) refinancing outstanding debt incurred for these purposes; or 3) development or establishment of new intermodal or railroad facilities. Funding for this program was greatly expanded under SAFETEA-LU, and the program was improved by eliminating some of the onerous restrictions.

**SAFETEA-LU** – Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users was signed into law on August 10, 2005. It authorizes the Federal surface transportation programs for highways, highway safety, and transit for the five-year period 2005 to 2009.

**Safety Management System** – A systematic process with a goal of reducing the number and severity of traffic crashes by ensuring all opportunities to improve highway safety are identified, considered, implemented as appropriate, and evaluated in all phases of highway planning, design, construction, maintenance, and operation, and by providing information for selecting and implementing effective highway safety strategies and projects.

**Safety Program** – Includes projects designed to improve vehicle and pedestrian safety on the city, county, and state highway systems. The safety program is divided into three subprograms: rail-highway crossings, highway safety, and traffic safety grants.

**SCFE** – South Central Florida Express. A Class III railroad with operations in Florida.

**SEROps**– Southeast Rail Operations Study. SEROps is the joint product of four states (North Carolina, South Carolina, Georgia, and Florida), the I-95 Corridor Coalition, and key regional rail stakeholders (e.g., MPOs, railroads, economic development agencies, ports, and others) and allow them to help guide the direction and focus of the study. The objective was to complete the rail picture in the southeast region by identifying and describing key rail issues, activities, and initiatives as well as the trends and issues affecting freight movements and needs for freight and passenger rail transportation in the southeastern states.

**Stakeholders** – Individuals and groups with an interest in the outcomes of policy decisions and actions.

**SFRC** – South Florida Rail Corridor. An operating rail corridor owned by the Florida Department of Transportation (FDOT). It extends from north of West Palm Beach to Miami. Maintenance and corridor operations are performed by CSX Transportation (CSXT) under contract to the FDOT. Tri-Rail, Amtrak, and CSXT freight all operate on this Corridor.

**SFRTA** – South Florida Regional Transportation Authority.

**SGLR** – Seminole Gulf Railway. A Class III railroad with operations in Florida.

**Short-Range Objectives** – One or more statements, for each long-range objective, of the specific, measurable, intermediate ends which are achievable and mark progress toward a goal. Specific objectives may be associated with more than one goal and/or long-range objective.

**SIB** – State Infrastructure Bank. A SIB is a revolving fund mechanism for financing a wide variety of highway and transit projects through loans and credit enhancement. SIBs are designed to complement traditional Federal-aid highway and transit grants by providing states increased flexibility for financing infrastructure investments.

**Side-Track** – A short track extending alongside and often connecting at both ends with main track.

**SIS** – Strategic Intermodal System. The transportation system comprised of facilities and services of statewide and interregional significance, including appropriate components of all modes. Established in 2003 by the Florida Legislature, the SIS is a statewide network of high-priority transportation facilities, including the State's largest and most significant commercial service airports, spaceport, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways, and highways. The SIS will be used for: targeting expenditures to help the State's economic competitiveness,

including increased corridor emphasis in planning and funding projects; applying innovative policies and technologies, including Intelligent Transportation Systems (ITS); clarifying the State's roles and responsibilities on and off this system; and providing input to the next update of the Florida Transportation Plan.

**“S” Line** – Along with the “A” Line, this is CSXT's major north-south line, which terminates in central Florida. It is the former Seaboard Air Line route, which is the western route between Jacksonville and Orlando/Tampa.

**Smart Growth** – Although there are many variations on the exact definition, the concept is used to identify a set of policies governing transportation and land use planning which provides benefits to communities and preserves the natural environment. Such policies are often intended to create land use patterns which are compact, transit-oriented, walkable, bicycle-friendly, and include mixed-use development with a range of housing choices.

**SmartWay<sup>SM</sup> program** - In 2004, EPA launched SmartWay<sup>SM</sup>, an innovative brand that represents environmentally cleaner, more fuel efficient transportation options. In its simplest form, the SmartWay brand identifies products and services that reduce transportation-related emissions. The SmartWay<sup>SM</sup> brand is a partnership among government, business and consumers aimed at protecting the environment, reducing fuel consumption, and improving air quality for future generations.

**SOV** – Single Occupancy Vehicle. An automobile in which only the driver is transported.

**State Highway System** – A network of approximately 12,000 miles of highways owned and maintained by the State or state-created authorities. Major elements include the Interstate, Florida's Turnpike, and other toll facilities operated by transportation authorities and arterial highways.

**Station** – A place designated by name in a railroad timetable.

**STB** – Surface Transportation Board. The STB is an economic regulatory agency charged by Congress with the fundamental missions of resolving railroad rate and service disputes and reviewing proposed railroad mergers. The STB is divisionally independent, although it is administratively affiliated with the U.S. Department of Transportation (DOT). It was created in the Interstate Commerce Commission Termination Act of 1995 and is the successor agency to the Interstate Commerce Commission (ICC). The agency has jurisdiction over railroad rate and service issues and rail restructuring transactions (mergers, line sales, line construction, and line abandonments); certain trucking company, moving van, and noncontiguous ocean shipping company rate matters; certain intercity passenger bus company structure, financial, and operational matters; and rates and services of certain pipelines not regulated by the Federal Energy Regulatory Commission.

**Strategic Issues** – Critical challenges or fundamental policy concerns which affect the nature of a public condition. Strategic issues serve to identify the most significant opportunities and/or threats/problems that the agency must address in the next five years to help the agency succeed or prevent the agency from failing in its mission.

**Sustainability** – Meeting the needs of the present without compromising the ability to meet the needs of the future.

**TDM** – Travel Demand Management.

**TEA-21** – The Transportation Equity Act for the 21st Century. Enacted June 9, 1998, as Public Law 105-178. TEA-21 authorizes the Federal surface transportation programs for highways, highway safety, and transit for the six-year period 1998 to 2003.

**Terminal** – An assemblage of facilities provided by a railway at a terminus or at an intermediate point for the handling of passengers or freight and the receiving, classifying, assembling, and dispatching of trains.

**Terminating Traffic** – Includes both inbound and local traffic in Florida.

**TEU** – Twenty-Foot-Equivalent Unit. The eight-foot by eight-foot by 20-foot intermodal container is used as a basic measure in many statistics.

**Through Traffic** – Represents traffic neither originating nor terminating in Florida, but passing through the State. This also is referred to as overhead traffic.

**Tie** – The transverse member of the track structure to which the rails are spiked or otherwise fastened to provide proper gage and to cushion, distribute, and transmit the stresses of traffic through the ballast to the roadbed.

**TIFIA** – The Transportation Infrastructure Finance and Innovation Act of 1998. Established a new Federal credit program (referenced as the TIFIA program) under which the U.S. Department of Transportation (DOT) may provide three forms of credit assistance – secured (direct) loans, loan guarantees, and standby lines of credit – for surface transportation projects of national or regional significance. The program's fundamental goal is to leverage Federal funds by attracting substantial private and other non-Federal coinvestment in critical improvements to the nation's surface transportation system. In all cases, the DOT uses a merit-based system to award credit assistance to project sponsors, who may include state DOTs, transit operators, special authorities, local governments, and private entities.

**Timetable** – The authority for the movement of regular trains subject to the rules. It may contain classified schedules and includes special instructions.

**Track** – An assembly of rails, ties, and fastenings over which cars, locomotives, and trains are moved. Types of tracks are as follows:

- **Bad Order** – A track on which bad order cars are placed either for light running repairs or for subsequent movement to repair tracks.
- **Classification** – One of the body tracks in a classification yard, or a track used for classification purposes.

- **Crossover** – Two turnouts with track between, connecting two nearby and usually parallel tracks.
- **Interchange** – A track on which cars are delivered or received, as between railways.
- **Passing** – A track auxiliary to the main track for meeting or passing trains. Same as a “siding.”
- **Side** – A track auxiliary to the main track for purposes other than for meeting and passing trains.
- **Spur** – A stub track diverging from a main or other track.
- **Station** – A track upon which trains are placed to receive or discharge passengers, baggage, mail, and express.
- **Storage** – One of the body tracks in storage yards or one of the tracks used for storing equipment.
- **Team** – A track on which cars are placed for transfer of freight between cars and highway vehicles.

**Track Capacity** – The number of cars which can stand in the clear on a track. Track capacity can be defined in several ways, but essentially it is the number of trains which can traverse a rail line before significant delays or safety issues arise.

**Track Signal** – A sign which indicates the control and movement of the train to the operator and to the public outside the train.

**Trackage Rights** – An arrangement by which one railroad may operate its trains over the tracks of another railroad. In overhead trackage rights, the tenant railroad may not directly serve the track owner’s customers.

**Train** – A series of linked railroad cars connected to one or more locomotives that transport people or goods. Types of trains are listed below:

- **Extra Train** – A freight train which does not operate regularly but only when required to move cars in excess of the normal flow of traffic.
- **Intermodal Train** – A train which handles only trailer on a flat car (TOFC) or container on a flat car (COFC) traffic.
- **Switch Runs** – Trains operating in terminal areas or in road territory for short distances (normally shorter than 100 miles) and place and pull cars from industries along the line. Switch runs are also referred to as “locals” by some railroads.

- **Through Freight** – Trains operating between terminals which may be several hundred or thousands of miles apart and do little or no picking up and setting off of cars en route.
- **Unit Train** – A train handling a large volume of one commodity. Typically those trains handle coal, ore, potash, etc., which originates at one point and is hauled to one destination.

**Transit** – Mass transportation by bus, rail, or other conveyance providing general or special services to the public on a regular and continuing basis. It does not include school buses or charter or sightseeing services.

**Transit-Oriented Design** – A set of urban design principles that attempts to provide communities with an alternative to low-density suburban sprawl and automobile-dependent land use patterns by aligning transit investments with development, creating livable mixed-use, denser, walkable “transit villages.” (Source: Accessing Transit: Design Handbook for Florida Bus Passenger Facilities, 2008)

**Transit-Oriented Development** – A pattern of dense, diverse, pedestrian-friendly land uses near transit nodes which, under the right conditions, translates into higher patronage. (Source: National Highway Institute: Transportation and Land Use Participant Workbook NHI 151043)

**Transportation Corridor** – Any land area designated by the state, a county, or a municipality which is between two geographic points and is used or suitable for the movement of people and goods by one or more modes of transportation, including areas necessary for management of access and securing applicable approvals and permits. Transportation corridors shall contain, but are not limited to, the following: a) existing publicly owned rights-of-way; b) all property or property interests necessary for future transportation facilities, including rights of access, air, view, and light, whether public or private, for the purpose of securing and utilizing future transportation rights-of-way, including but not limited to, any lands reasonably necessary now or in the future for securing applicable approvals and permits, borrow pits, drainage ditches, water retention areas, rest areas, replacement access for landowners whose access could be impaired due to the construction of a future facility, and replacement rights-of-way for relocation of rail and utility facilities.

**Transportation Expenses** – The expenses directly associated with the operations of a railroad. They generally include the cost of crews, fuel, and other related items.

**Travel Price** – The travel cost per mile for a particular mode. For example, the average cost for automobile travel on a per mile basis which includes the cost of operating, maintaining, and insuring the vehicle.

**TRIP** – Transportation Regional Incentive Program. The state program that provides matching state funds to improve regionally significant transportation facilities in partnership with regional transportation areas.



**Vision** – A description of the future physical appearance and qualities of a community or region.

**VMT** – Vehicle Miles of Travel. The total number of miles traveled for a mode during a given time period.

**Work Program** – The five-year listing of all transportation projects planned for each fiscal year by the Florida Department of Transportation (FDOT), as adjusted for the legislatively approved budget for the first year of the program.