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## ■ Determining SIS Investment Needs

Although the SIS represents a new way of planning and funding transportation improvements in Florida, one fact is not expected to change: Florida's transportation needs will continue to exceed the limited amount of funding available for transportation investment. Therefore, FDOT must be more strategic in how it spends limited resources on improvements to the transportation system and must engage its partners in a coordinated approach to plan and fund transportation improvements to the SIS and regional and local systems.

Florida's transportation system is one of the most complex and extensive in the nation. FDOT owns and operates the State Highway System, which includes the vast majority of SIS highways, but FDOT does not own or operate any of the other facilities that make up the SIS. A large and diverse group of stakeholders is involved in planning and funding transportation improvements on SIS facilities. As the SIS continues to develop, FDOT must strengthen existing relationships and form new partnerships with organizations that traditionally have not had a large role in planning improvements to the transportation system. These partnerships will offer new and enhanced opportunities to coordinate transportation planning and jointly fund transportation improvements.

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## Linking the SIS with Regional and Local Transportation Systems

The SIS will support complete end-to-end trips only if it is linked effectively to regional and local transportation systems. Just as FDOT and statewide partners have defined a system of statewide significance (the SIS), regional partners should define systems of regional significance within the context of their common goals and ensure their connectivity to the backbone provided by the SIS. These facilities should include:

- Regional transportation corridors such as highway, waterway, rail and regional transit corridors serving major regional military, commercial, industrial or medical facilities; and
- Regional transportation hubs such as passenger terminals (e.g., commuter rail, light rail, intercity transit, intermodal transfer centers), commercial service and major reliever airports, deepwater and special generator seaports and major regional freight terminals and distribution centers.

Regional transportation decision-making should be enhanced to ensure that resources are made available to projects that contribute to overall state economic growth, provide connections to the SIS and provide access to regional activity centers.

Key opportunities for coordination between the SIS and regional or local transportation facilities include the following:

- **Access to 35 military facilities:** The Governor's Advisory Council and the Florida Defense Alliance have identified 21 military bases and three unified commands in Florida that are managed by the U.S. Department of Defense, of which 12 bases are of critical concern. All 12 of these critical bases are either directly located on the SIS or connected to the SIS via the U.S. Department of Defense's Strategic Highway Network (STRAHNET) or Strategic Rail Corridor Network (STRACNET). The U.S. Department of Homeland Security (DHS) also manages 11 major Coast Guard facilities in Florida. Further work should be done to determine if any additional facilities serving military facilities should be added to the SIS, and which ones should be identified as regionally significant facilities.
- **Emergency evacuation routes:** Florida's emergency evacuation route system was established by the Florida Department of Community Affairs (DCA) based on the predicted travel patterns of residents and the functional effectiveness of transportation routes. Planning for evacuation routes that also are designated SIS routes should be coordinated with DCA and the appropriate regional and local partners to ensure that the entire system can function effectively in times of emergency. Other critical evacuation routes should be evaluated to determine if they are regionally significant facilities.
- **Regional freight networks:** While the SIS includes the state's most strategic highways, rail lines and freight terminals, there are other freight routes, terminals and distribution centers that are crucial for completing door-to-door freight movements between the shipper and receiver. Identifying these regionally significant freight facilities and coordinating these routes with the SIS can improve freight transportation in Florida and thereby enhance the state's economic competitiveness.
- **Transit, bicycle and pedestrian facilities:** For SIS hubs with significant passenger volumes, transit, bicycle and pedestrian services can be key elements in a fully interconnected transportation system. Transit, bicycle and pedestrian routes provide connectivity between the SIS and local economic centers such as downtown areas and tourist attractions. FDOT will work with its regional and local partners to determine if any exclusive-use transit routes are of interregional significance and therefore should be added to the SIS in the future; to identify regionally significant transit routes; and to consider transit, bicycle and pedestrian access needs at SIS passenger hubs.

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The process for determining which SIS investments will be funded by FDOT and its partners can be broken into three stages, as shown in Table 6.

1. FDOT will work with its partners to determine investment *needs* based on the performance of the transportation system relative to goals and objectives of the SIS.
2. FDOT and its partners will gather detailed information about each proposed investment to help recommend which should be the highest *priorities* for the limited funding that is forecast to be available in the future.
3. From the prioritized list of projects, FDOT will select *projects* for funding as part of its five-year work program. FDOT will encourage the financial participation of partners in projects to leverage state resources and thereby raise the priority of individual projects.

Florida law directs FDOT, in cooperation with its partners, to report what investments are needed to implement the SIS. In response, FDOT and its partners have begun a comprehensive assessment of needs on all SIS and Emerging SIS facilities in preparation for the development of a SIS Needs Plan.

As an initial step, FDOT has worked with its partners to compile a list of all investment needs that have been identified on SIS and Emerging SIS facilities and are not yet funded in FDOT or partner work programs. About 1,500 needs have been identified to date. A “need” can be defined as a transportation improvement that has been identified on the basis of currently accepted and adopted standards and other assumptions, and has been documented in a formal long-range or master plan. Table 7 summarizes these preliminary investment needs by mode.<sup>1</sup>

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<sup>1</sup> Needs estimates shown in Table 7 are based on the best available information from statewide modal plans, metropolitan planning organization long-range transportation plans, transportation facility master plans and other partner plans as of December 2004. The cost estimates include existing needs as identified in each plan. Initial efforts have been made to date to identify and address incomplete and outdated information and to reduce inconsistency and duplications among partner plans. Additional needs that have been proposed by partners but have not been fully evaluated are not included in these estimates.

**Table 6. Summary of SIS Planning and Programming Framework**

	Process Step		
	SIS Needs	SIS Priorities	SIS Projects
<b>Description of each process step</b>	Proposed investments or combinations of investments on all types of SIS facilities that are necessary to address current or future deficiencies in the SIS	Investments in SIS facilities that most effectively advance SIS goals and objectives and can be implemented in the next 10 or 20 years given funding constraints	Investments in SIS facilities that are approved for funding by FDOT or its partners
<b>Inputs to each process step</b>	All FDOT and partner plans that include needs on SIS facilities Multimodal corridor plans and rural plans that coordinate multiple improvements among a group of facilities Technical assessments of the performance of SIS facilities Forecasts of population and economic growth and future development	SIS Needs Plan Technical assessments of the ability of each investment to meet the SIS goals Forecasts of revenue available from federal, state and local sources and private-sector contributions Partner input on high-level priorities, potential partnerships and other coordination opportunities	SIS Cost Feasible Plan Technical assessments of the ability of each project to meet the SIS goals Actual funding allocations by Florida Legislature Funding commitments by FDOT's partners and partnership agreements (other funding sources)
<b>Products of each process step</b>	SIS Needs Plan with defined horizon year, financially unconstrained	SIS Cost Feasible Plan, with 10- and 20-year components, constrained by revenue projections	5-year list of projects matched with funding and incorporated into FDOT work program Annual or multi-year list of projects matched with funding and incorporated into partner capital programs
<b>Roles in each process step</b>	Led by FDOT, with public and partner involvement	Led by FDOT, in coordination with partners and with opportunities for public comment	Internal FDOT process (state transportation funding sources) Partner processes for other SIS funding sources
<b>Milestones anticipated in each process step</b>	2004: Initial needs compilation and policy guidance 2005: Initial SIS Needs Plan 2006-2009: Long-term SIS Needs Plan, updated on a regular basis	2004: High-level policy guidance 2005: Initial list of recommended priorities 2006-2009: SIS Cost Feasible Plan, with 10- and 20-year components, updated on a regular basis	2004: Projects for FY 2005 FDOT funding, emphasizing connectors; projects for new FDOT Tentative Work Program, covering FY 2006-2010 2005: Refined project selection process for SIS funding as FY 2011 projects are added to work program 2006-2009: New multimodal selection process for SIS funding

These numbers have been superseded by the SIS Multimodal Unfunded Needs Plan in 2006.

**Table 7. Preliminary Estimate of Investment Needs on SIS and Emerging SIS Facilities by Facility Type**

Facility Type	Preliminary Estimate of Investment Needs (\$ Millions)	Comments
Commercial service airports	\$8,400	Estimates are derived from 2,300 needs listed in plans and project proposals from FDOT, public and private partners. Projects in FDOT's adopted Work Program are not included in the estimates. The following issues will be resolved in future updates and enhancements to the list of SIS needs: <ul style="list-style-type: none"> <li>• Inconsistent assumptions and performance measures used in various source plans;</li> <li>• Insufficient or no cost data for many needs;</li> <li>• Limited information on how some projects meet some SIS goals;</li> <li>• No information available for some facilities, especially those managed by the private sector; and</li> <li>• Limited information on SIS hubs and connectors.</li> </ul>
Spaceports	\$160	
Deepwater seaports	\$3,400	
Passenger terminals	\$120	
Rail freight terminals	\$76	
Rail corridors	\$830	
Waterway corridors	\$57	
Highway corridors	\$49,900	
Intermodal connectors		
Highway connectors	\$2,170	
Waterway connectors	\$27	
Rail connectors	\$4	

The preliminary list of SIS needs includes information from:<sup>2</sup>

- 2030 Unfunded Needs Plan: FIHS and SIS Highway Components<sup>3</sup>; the second five years of the FIHS Ten-Year Plan; and the remaining 15 years of the FIHS Cost Feasible Plan;
- The Florida Aviation System Plan, which is updated on a continuous basis, from December 2004;
- Needs identified in the 2004/2005 update of the Florida Rail System Plan;
- Seaport master plans and information from specific requests for information on seaport needs provided by the Florida Seaport Trade and Economic Development (FSTED) Council;
- Other identified needs on SIS connectors drawn from MPO plans and other partner plans; and
- Other needs on SIS hubs and corridors identified by FDOT's partners.

<sup>2</sup> A complete list of source documents can be found in *Preliminary Investment Needs on Florida's Strategic Intermodal System* at [www.dot.state.fl.us/planning/sis/needs](http://www.dot.state.fl.us/planning/sis/needs)

<sup>3</sup> Draft as of December 23, 2004. The final plan is anticipated to be adopted in January 2005.

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A substantial amount of work has been accomplished in developing this list to help ensure it contains transportation investment needs that are strategically important to the state, and to eliminate as many inconsistencies and redundancies as possible. However, because the SIS establishes a new approach to transportation investment in Florida, many of the prior cost estimates need to be updated. Therefore, the cost estimates presented in the SIS Strategic Plan are aggregate totals by type of transportation facility rather than a list of SIS needs with detailed cost estimates. An initial SIS Needs Plan with individual cost estimates will be developed in 2005.

In accordance with the relative roles of the SIS goals, the preliminary list includes investment needs that primarily address mobility, operational performance, economic competitiveness and economic diversification. However, not all of the needs in the list will be eligible for FDOT funding, and not all those that are eligible will be funded entirely by FDOT. Some may be funded by FDOT, some may be funded through agreements between FDOT and its partners, and others may be funded entirely by partners. The cost estimate reflects all of the needs, regardless of how they may be funded.

As FDOT worked with partners to compile the preliminary list of SIS investment needs, approximately 407 other proposed needs on SIS facilities were identified. About 202 of these proposed needs have advanced in the planning process to the point where a reliable cost estimate has been produced, although partners have not yet reached consensus regarding these particular improvements. The estimated cost of these 202 needs is \$4.2 billion. The remaining 205 proposed needs are still in the conceptual stage, and reliable cost estimates have not been identified.

Needs that primarily address safety, security and preservation of SIS facilities were identified for coordination purposes, although they are primarily funded from sources allocated for those purposes. Still other capacity and operational needs have been identified by FDOT and its partners, but there is not consensus among FDOT and its partners regarding whether the investment should move forward. These other proposed needs accompany the preliminary SIS needs list to provide additional information that will be used in the future development of a formal SIS Needs Plan.

FDOT and its partners will use the preliminary SIS needs list and the list of other proposed needs as a starting point for the development of a comprehensive SIS Needs Plan. The SIS Needs Plan will encompass:

- Improvements that benefit both passenger and freight movement in all modes;
- Improvements on all types of facilities, including added capacity, safety and security enhancements, major preservation activities and operational improvements that incorporate new and existing technologies and management strategies;
- Investments that are driven primarily by economic competitiveness and economic development needs in addition to those driven primarily by mobility and operational needs;

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- Investment needs on all SIS and Emerging SIS facilities, whether owned by FDOT or its public- and private-sector partners, regardless of who will fund the investment; and
  - Recommendations for investments in new transportation facilities, or for new uses of existing facilities, such as introduction of passenger rail service on a corridor now used exclusively for freight purposes.

The comprehensive SIS Needs Plan will provide a complete list of investment needs on SIS and Emerging SIS facilities—no matter who is funding the project, or whether funding is even available. The SIS Needs Plan will enable better coordination among various types of projects on various facilities that in the past have been planned, funded and implemented by different organizations on different schedules.

A comprehensive SIS Needs Plan can help FDOT and its partners better define SIS investment needs and develop combinations of transportation solutions affecting interrelated facilities through a collaborative process. For example, if an airport is planning a major capacity expansion, FDOT and the airport authority might identify the need for improvements to the SIS connector providing access to the airport. When the capacity of the connector is expanded, safety or other operational improvements might be scheduled at the same time to minimize costs and disruptions to passengers and freight using the connector.

A more comprehensive needs plan also will help FDOT coordinate with appropriate agencies to assess the economic, land use, community and environmental impacts of proposed investments early in the planning process. As early as the project's conception, FDOT and its partners can identify fatal flaws and possibly identify alternative projects before funds are spent on detailed planning studies and engineering design.

To develop, enhance and implement the SIS Needs Plan, FDOT will:

- Work with MPOs, counties, cities, transportation authorities, economic development organizations, the private sector and other partners to compile and maintain a list of all transportation investment needs involving SIS facilities. Needs identified in new and updated transportation plans will be incorporated as information becomes available.
- Improve consistency among partner plans with regard to SIS needs. Where possible, every FDOT plan and, ideally, every partner plan, will share a common forecast or horizon year of at least 20 years from the date of plan adoption to enable more effective coordination. The specific types of information used to define a transportation “need” also will become more consistent across partners.
- Collect information about the SIS and its components to determine how well the system meets the goals established in the SIS Strategic Plan, and how this performance may improve or deteriorate in the future, using standard measures and assessment tools.
- Determine how anticipated statewide and regional population growth will affect which transportation investments will be needed, where they will be needed and when they will be needed. FDOT will explore ways to use a common set of demographic and economic forecasts that could enable comparisons of needs across modes and partners.

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- Identify problem areas that prevent efficient and safe and secure travel and transport on SIS facilities, which may include bottlenecks and security concerns and locations where particular types of vehicles cannot pass because they are too large or too heavy.
  - Determine the most effective solutions or combinations of solutions that address these identified deficiencies.
  - Periodically review and update the Needs Plan based on changing conditions and partner input.

One of the important aspects of the needs identification process will be the development of multimodal corridor plans, which can provide a tool to group together multiple types of SIS facilities and help identify transportation needs and proposed solutions from an interregional or statewide perspective. These plans will be developed as required by changing transportation and economic needs and opportunities. A multimodal corridor plan could simply include broad assessments of needs in the corridor and propose a wide range of potential multimodal solutions to address the needs. Or, the plan could be more detailed, and serve as an initial effort to determine how investments could be funded and which combinations of investments should be the highest priority for FDOT and its partners.

In addition, rural multimodal corridor plans will focus on the three Rural Areas of Critical Economic Concern identified by the Governor, as well as other rural needs as they arise. This process will enable FDOT to work with its rural partners to identify transportation needs on the rural components of the SIS network, and also will facilitate coordination with economic development and growth management initiatives in the rural areas.