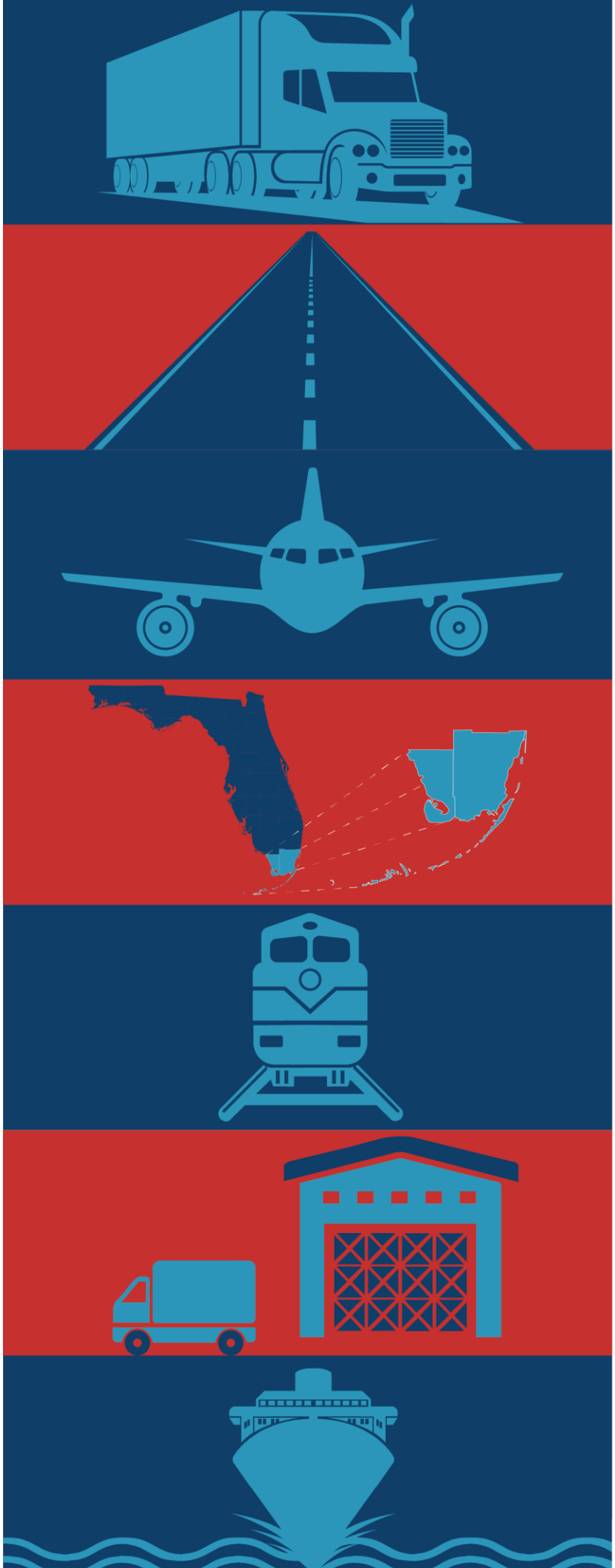

District Six

Miami-Dade Countywide Freight Improvement Plan

Document Review Summary Memorandum

FPID: 437957-1-12-01

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FDOT

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Abbreviations List

Abbreviation	Complete Name/Phrase	Abbreviation	Complete Name/Phrase
AIP	Airport Improvement Program	**FY**	Fiscal Year
ALP	Airport Layout Plan	**HSR**	Hard Shoulder Running
ASO	Aviation and Spaceports Office	**ICM**	Integrated Corridor Management
ATRI	American Transportation Research Institute	**ILC**	Intermodal Logistics Center
CAV	Connected and Automated Vehicles	**Lo/Lo**	Lift-on/Lift-off
CIP	Capital Improvement Plan	**LOS**	Level of Service
DFC	District Freight Coordinator	**MDAD**	Miami-Dade Aviation Department
DIVAS	Data Integration and Video Aggregation System	**MIA**	Miami International Airport
DSRC	Dedicated Short-Range Communications	**MPO**	Metropolitan Planning Organization
ETDM	Efficient Transportation Decision Making	**MRO**	Maintenance, Repair, and Overhaul
FAA	Federal Aviation Administration	**NHFP**	National Highway Freight Program
FAA	Freight Activity Area	**NPIAS**	National Plan of Integrated Airport Systems
FALUCA	Freight Activity and Land Use Compatibility Analysis	**OPP**	Office of Policy Planning
FASP	Florida Aviation System Plan	**P3**	Public-Private Partnership
FDOT	Florida Department of Transportation	**PAC**	Project Advisory Committee
FEC Railway	Florida East Coast Railway	**PAL**	Planning Activity Level
FHWA	Federal Highway Administration	**PFA**	Priority Focus Area
FLFAC	Florida Freight Advisory Committee	**POMTOC**	Port of Miami Terminal Operating Company
FLZ	Freight Logistics Zone	**RAISE**	Rebuilding American Infrastructure with Sustainability and Equity
FMTP	Freight Mobility and Trade Plan	**RISC**	Rapid Incident Scene Clearance
FRDC	Freight Roadway Design Considerations	**Ro/Ro**	Roll-on/Roll-off
FRO	Freight and Rail Office	**RRSP**	Road Ranger Service Patrol
FTP	Florida Transportation Plan	**RTMC**	Regional Transportation Management Center

Abbreviation	Complete Name/Phrase	Abbreviation	Complete Name/Phrase
RTTAC	Regional Transportation Technical Advisory Council	**TEO**	State Traffic Engineering and Operations Office
SFCT	South Florida Container Terminal	**TIM**	Traffic Incident Management
SIO	Systems Implementation Office	**TIP**	Transportation Improvement Plan
SIRV	Severe Incident Response Vehicles	**TPA**	Transportation Planning Agency
SIS	Strategic Intermodal System	**TPIP**	Truck Parking Improvement Program
SMART	Specific, Measurable, Achievable, Relevant, and Time-Bound	**TPO**	Transportation Planning Organization
SMART	Strategic Miami Area Rapid Transit	**TSM&O**	Transportation Systems Management & Operations
SPII	Strategic Ports Investment Initiative	**UDB**	Urban Development Boundary
SSGAT	State Strategic Goal Assessment Tool	**V2I**	Vehicle-to-Infrastructure
STTF	State Transportation Trust Fund	**VHT**	Vehicle Hours Traveled
TDA	Transportation Data and Analytics Office	**VMT**	Vehicle Miles Traveled

1.0 Introduction

The *Miami-Dade Countywide Freight Improvement Plan*, an initiative by the Florida Department of Transportation (FDOT) District Six, is intended to enhance freight and logistics capacity, improve economic competitiveness through a more efficient transportation network, and provide a prioritized project bank for future infrastructure improvements to achieve these ends. The purpose of the *Document Review Summary Memorandum* is to provide a summary of the freight-related plans, studies, and publications from FDOT, its District Offices, and local/regional partners that are relevant to the Miami-Dade County Study Area. This memorandum addresses the following objectives:

- Identify gaps in freight studies within the Miami-Dade County Study Area
- Incorporate multimodal transportation needs from previous planning efforts
- Integrate best practices for project identification, needs assessment, and concept development

During the review of the documents, attention was given to sources and analysis of freight movement data, areas or corridors with specific freight needs that have previously been identified, location of significant existing or planned freight generators, and input on projects or needs identified by private freight industry stakeholders.

2.0 Statewide Plans, Studies, and Publications

The following section summarizes the various statewide FDOT plans that guide and impact freight transportation policy, investments, and strategies throughout Florida, including their relevance and impact on freight mobility in Miami-Dade County. Additionally, statewide studies and publications were reviewed and considered in this section to ensure future freight project tasks in Miami-Dade County align with state goals and objectives.

2.1 Florida Transportation Plan

Published by: Office of Policy Planning (OPP)

Latest Update: 2021

Document Link: http://floridatransportationplan.com/

The *Florida Transportation Plan* (FTP) is developed and updated every five years through the collaboration of a 36-member committee comprised of state, regional, and local transportation partners from the public and private sectors. Efforts for the next FTP update are underway, with a completion date for the end of the 2025 calendar year.

The FTP has four components that help shape the State's transportation future. These components include performance reports, a summary of anticipated statewide trends, uncertainties, opportunities, desirable outcomes that will impact the transportation system, and strategic steps for achieving and monitoring progress over the next five years.

The Policy Element establishes goals, objectives, and strategies for transportation decision-making across all government levels. It emphasizes a set of interconnected strategies to achieve these aims. Key strategies involve the following:

- Committing to Vision Zero
- Risk Identification and Mitigation
- Prioritizing People and Freight Mobility
- Improving Access to Opportunity

- Corridor and Hub Transformations
- Network Completion
- Infrastructure Expansion
- Integrating Land Use and Transportation
- Safeguarding and Enhancing Environmental Resources

The Performance Element provides up-to-date system metrics to assist in establishing and directing objectives, targets, and tactics at various decision-making levels. It also aids financial allocation decisions and monitors project efficiency and effectiveness in the Five-Year Work Program. All monitored measures, except highway safety, reportedly meet their targets or are in satisfactory condition. Unfortunately, the State has seen an increase in fatalities in recent years. To address this issue, an implementation plan has been developed to highlight additional strategies supporting highway safety targets. This plan has been directed by the Federal Highway Administration (FHWA). The monitored measures include highway safety, infrastructure conditions, reliability, freight, transit safety, and asset management.

The Vision Element shapes goals based on trends that are reshaping Florida, prioritizing safety, quality infrastructure, efficient mobility for people and freight, equity and accessibility improvement, and transportation solutions that strengthen the State's economy, communities, and natural environment.

The Implementation Element outlines short-term safety, resilience, and emerging technology actions with specific measures to monitor progress toward achieving the established vision and goals. It mandates FDOT, metropolitan planning organizations (MPOs), and local governments to align investments in support of FTP objectives, improving needs identification and project prioritization. FDOT leads FTP implementation, collaborating with the Implementation Committee to review progress, offer guidance, and address issues. They also adapt short-term actions as necessary in response to changing trends, conditions, or unforeseen events, and report progress through a standardized process on partner commitments to FTP Implementation.

The Freight Improvement Plan will consider the FTP elements to identify region-specific goals and objectives using the suggested strategies, performance metrics, and implementation measures outlined.

2.2 Freight Mobility and Trade Plan

Published by: Freight and Rail Office

Latest Update: 2020

Document Link: https://www.fdot.gov/rail/plandevel/freight-mobility-and-trade-plan

The FDOT *Freight Mobility and Trade Plan* (FMTP) is Florida's freight plan that complies with FHWA requirements. It offers a thorough evaluation of freight transportation facilities crucial in promoting the State's economic growth. This plan also aims to aid in accomplishing the transportation goals outlined in the FTP through tailored multimodal freight investments.

The FMTP establishes its objectives by drawing from the goals and plans outlined in the FTP, FDOT Modal Plans, partner agencies, and feedback provided by the Florida Freight Advisory Committee (FLFAC). As part of the 2020 update, the Project Advisory Committee (PAC), comprised of FLFAC members and freight representatives from FDOT offices, was consulted for its insights on the most pressing freight challenges in the State. After analyzing stakeholder feedback and freight performance data, three critical issues were identified: congestion/bottlenecks, truck parking, and empty backhaul. These challenges align with observed trends, such as population growth, increasing urbanization, and an aging population projected to outnumber the working-age population (ages 25-64). These trends drive higher demand for online shopping, resulting in more intra-regional and last-mile truck trips and reshaping freight distribution networks.

The FMTP incorporates scenario planning for three key factors: resiliency, technology, and economy. These strategies could leverage opportunities and address forthcoming challenges for the State. Through this process, immediate and long-term freight needs were identified employing a prioritization method that ensures project eligibility for various funding programs, including the National Highway Freight Program (NHFP), Freight Funding in the Adopted Work Program, SIS Funded Freight Projects, and Discretionary Grant Funded Freight Projects. Finally, the FMTP provides recommendations and implementation strategies that align with the stated objectives of enhancing mobility, efficiency, reliability, and economic development. These project prioritization methods, recommendations, and implementation strategies will be considered for the development of the goals, objectives, and multimodal needs of Miami-Dade County.

Outreach efforts have been ongoing throughout 2023 to gather feedback on current and emerging trends in the freight industry from private and public stakeholders and the general public. The updated FMTP is planned to be published in 2024. Coordination with the Freight and Rail Office will be ongoing throughout the development of the District Six Freight Study to ensure the goals, objectives, and performance measures are in line with the 2024 Plan update.

2.3 Strategic Intermodal System Policy Plan

Published by: Systems Implementation Office

Latest Update: 2022

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/sis/policyplan/sis_policyplan_layout_2022-04-14_print_ab-(1).pdf?sfvrsn=63b6b45f_2

The *Strategic Intermodal System* (SIS) *Policy Plan* provides a needs assessment of the SIS multimodal network, a prioritization process based on funding eligibility, a finance plan utilizing projected revenues, and an evaluation of the potential impacts of proposed improvements to fulfill Section 339.64, Florida Statutes requirements.

The SIS Policy Plan emphasizes three key policy areas that will shape FDOT's network planning and management to advance the FTP. The investments made in SIS aim to prioritize three main areas: system optimization, safety enhancement, and modal expansion. This departure from traditional capacity enhancement projects involves fostering greater flexibility in funding and project requirements for both SIS and non-SIS projects. The goal is to improve SIS performance and enable adaptation to evolving economic, technological, and mobility trends. Ultimately, the SIS program will focus on refining interregional connectivity and collaborating with MPOs on regional and corridor planning initiatives, emphasizing statewide/interregional and regional priorities.

The Systems Implementation Office (SIO) publishes the SIS Funding Strategy, which details projects being funded, planned for proposed funding, and considered feasible based on Florida's projected revenues. Along with the Funding Strategy, the SIO also publishes the Multimodal Unfunded Needs Plan, which includes projects on the SIS that help meet mobility needs, even though funding is not anticipated in the 25-year timeframe of the SIS Funding Strategy. FDOT invests in many freight-related projects through the SIS program, including the State's largest and most significant multimodal freight facilities. The SIO also provides supplemental documents for SIS Facility Designations and Hub Profiles. The Funding Strategy will be reviewed to cross reference projects that are a SIS priority, specific to District Six, that satisfy the identified freight modal needs of the region.

2.4 Florida Seaport and Waterways System Plan

Published by: Seaport Office

Latest Update: 2022

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/seaport/pdfs/2020-seaport-and-waterways-system-plan-update6eedf19276fc460e9cad7c294e13806f.pdf?sfvrsn=6411b7f3_4

The *Seaport and Waterways System Plan* outlines Florida's seaport and waterway system needs over a five-, 10-, and 20-year period. It details the strategies the Department will execute to ensure seamless integration of seaport facilities with other transportation hubs by identifying key areas of focus to direct investments in Florida's seaports, such as the following:

- Fostering sustainable growth and development
- Generating positive economic outcomes from seaport operations statewide
- Safeguarding the safety and security of freight and passengers traversing the State's seaports

The Plan offers a comprehensive look at the current annual cargo volumes, challenges, trends, vision, goals, and areas of emphasis for the FDOT seaport program. It also provides insight into the economic impact and collaborations that have fueled advancements in seaport development, maritime commerce, global trade, and the cruise industry.

Florida is actively exploring global and regional trends to shift towards and develop new trading opportunities for its ports. Geographically located in proximity to the growing markets of Latin America and the Caribbean, Florida holds the potential to serve as a pivotal link connecting the United States to Asia, Latin America, Europe, Africa, and the Middle East. For several decades, numerous ports along the Atlantic and Gulf coasts have dedicated their efforts to advancing developments and investments geared toward enhancing the efficiency of their trade and logistics sectors while also welcoming new trading partners.

By channeling investments into improving the efficiency and capacity of the existing inland intermodal network that serves multiple ports along Florida's coastline, the State can gain a competitive edge over its counterparts by creating a conducive environment for the import and export of diverse materials used in manufacturing, as well as distribution and retail operations.

The Plan will assist the Department in analyzing trends, potential growth areas, and projected needs. This analysis aims to support maintaining PortMiami's status as one of the leading cargo ports, both within the State and nationally.

2.5 Strategic Port Investment Initiative

Published by: Seaport Office

Latest Update: 2022

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/seaport/pdfs/final-spii-fsted-(08-2022)1906417247.pdf?sfvrsn=d5d13e65_2

The *Strategic Ports Investment Initiative* (SPII) is a funding program that allocates annual funding based on a prioritized list of seaport projects developed through the collaboration of FDOT, the Department of

Economic Opportunity, and Florida Seaports. The SPII meets Section 311.10, Florida Statutes,[1] addressing the State's economic development goal of becoming a hub for trade, logistics, and export-oriented activities by:

- Providing important access and major on-port capacity improvements
- Providing capital improvements to strategically position the State to maximize opportunities in international trade, logistics, or the cruise industry
- Achieving state goals of an integrated intermodal transportation system
- Demonstrating the feasibility and availability of matching funds through local or private partners

The current project list outlines proposed improvements, funding sources, and funding amounts for fiscal years (FY) 2014 to FY 2026. Three PortMiami Projects were funded between FY 2014 and FY 2021, with no additional improvements or funding allocated through FY 2026.

2.6 Intermodal Logistics Centers Serving Florida Seaports

Published by: Seaport Office

Latest Update: 2023

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/seaport/pdfs/intermodal_logistics_centers_serving_florida_final.pdf?sfvrsn=c09ac2ca_1

The *Intermodal Logistics Centers Serving Florida Seaports* report was created to identify existing ILCs in Florida and potential areas for their development. The report examined sites in neighboring southeastern states, such as Georgia and South Carolina, that already have state-owned and managed ILCs and inland ports. The focus was to evaluate Florida's competitive position, understand the current and potential roles of ILCs in the State, and explore the appropriate role the State should take in supporting their development. This focus would also improve the supply chain capacity and throughput in Florida.

The idea of Intermodal Logistics Centers (ILCs) in Florida is not a new concept. However, with the current supply chain challenges and changes in global trade, these facilities have become a crucial part of the strategy for Florida's seaports, rail operators, private industry, local governments, and the State to enhance maritime and intermodal trade. Florida's geographic location fosters a unique business and operating environment that allows ILCs to function differently depending on location. Specific to the South Florida region, an ILC location near major seaports like PortMiami with efficient highway and rail access would be more beneficial. Expansion within the existing PortMiami footprint is not viable due to land constraints and its location in the heart of downtown Miami. An inland location further west and north may not be as favorable given that approximately 70 percent of the imports coming through the Port are consumed locally, which could create redundant freight trips and add to congestion issues.

An ILC located in South Florida would be most effective if its primary function were to serve as an additional staging and cargo area to increase off-port capacity for equipment handling and transshipments. Such a facility could increase the volume and efficiency of cargo processed by the Port rather than functioning as a large-scale site for warehousing, distribution, and value-added processes like assembly or manufacturing. Utilizing ILCs in this manner has a notable benefit, as their success does not depend on larger properties exceeding 100 acres. Smaller parcels can be sufficient and are available in the South Florida region, specifically in Miami-Dade County, where much of the land within the urban

[1] Florida Statutes. (2023). Title XXII: Ports and Harbors, Chapter 311: Seaport Programs and Facilities, Sec. 311.10. Strategic Port Investment Initiative

development boundary has already been built out. Recommendations from the report and regional analysis consist of the following:

- Forming a stakeholder working group to back the statewide initiative of ILCs in Florida
- Assessing ILC requirements on a regional basis
- Establishing a comprehensive statewide ILC enterprise or agency
- Identifying potential economic incentive packages through benefit evaluations
- Launching a unified state-led marketing campaign to promote Florida's ILCs

2.7 Florida Rail System Plan

Published by: Freight and Rail Office

Latest Update: 2023

Document Link: https://www.fdot.gov/rail/plans/railplan

The *Florida Rail System Plan* is updated on a five-year cycle to guide planning activities and project development efforts for the State's freight and passenger rail by providing short and long-range capital improvement projects and policy recommendations to achieve Florida's Rail Vision and Supporting Goals.

The freight rail systems in Florida are privately owned and operated. However, several initiatives aim to improve and invest in freight rail for the mutual benefit of FDOT, its rail partners, and the State. These strategies encompass safety, livability, capacity, funding, new access, and economic development. State funding for freight rail is primarily allocated through investments in the SIS program, overseen by FDOT's Systems Implementation Office.

Various short-range and long-range CSX and Florida East Coast (FEC) Railway projects were identified as part of Florida's SIS funding plan, including improvements and freight rail expansion in District Six. Project types identified include corridor studies, seaport terminal improvements, and capacity projects relating to access, rehabilitation, and rail track expansion. The projects identified in the Rail System Plan will be considered when identifying the needs and project prioritization of freight rail in Miami-Dade County.

2.8 Florida Aviation System Plan

Published by: Aviation and Spaceports Office (ASO)

Latest Update: 2017

Document Link: https://www.fdot.gov/aviation/FASP2035

The *2035 Florida Aviation System Plan* (FASP) offers a comprehensive view of the State's airports, their aviation-related needs, including air and land development, and anticipated demands over five, 10, and 20-year planning horizons. The FASP serves as a tool for the prioritization and funding of projects that address critical factors such as safety, capacity, ground access, airspace congestion, navigation, financial considerations, growth, and maintenance.

The airports within District Six consist of Miami International Airport (MIA), the only Commercial Service Airport, and six General Aviation Airports, with Miami Executive Airport holding a special designation as a SIS reliever airport for MIA. MIA is the primary hub for air cargo tonnage, leading in the Americas for international air freight and acting as the largest gateway to Latin America and the Caribbean. Top commodities distributed include perishable products, high-tech products, telecommunications equipment, textiles, pharmaceuticals, and industrial machinery.

The Florida Aviation Grant Program, administered by the ASO and funded through the State Transportation Trust Fund (STTF), is the State's largest financial resource for publicly owned airports. Eligible projects include capital improvements, planning and design services, and mitigation lands and easement acquisitions. As part of the FDOT funding process, projects must align with any of the seven FASP goals, encompassing safety, efficiency, security, and innovation. On a federal level, the Federal Aviation Administration (FAA) allocates funding from the Airport Improvement Program (AIP) through the Airport and Airway Trust Fund to eligible airports listed in the National Plan of Integrated Airport Systems (NPIAS). The FASP has identified an approximately $800 million funding gap between the FAA and FDOT for various projects. The State Strategic Goal Assessment Tool (SSGAT) was created to evaluate if the planned projects align with the goals set out in the FASP 2025 update. The FASP and SSGAT will be used as a reference in the identification of needs and project prioritization of the Freight Improvement Plan.

2.9 Statewide Truck Parking GPS Data Analysis – Parking Supply and Utilization

Published by: Freight and Rail Office

Latest Update: 2019

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/statistics/multimodaldata/multimodal/fdotcoswtruckgpsparkingfinalreportb03efb1d092a4d23b31c29a5dd13d4d6.pdf

The *Statewide Truck GPS Data Analysis* used data from the American Transportation Research Institute (ATRI) to evaluate the location and usage rates of Florida's authorized and unauthorized truck parking facilities. Florida has around 300 truck parking sites with a total of 10,091 spaces, with approximately 30 percent of those spaces being publicly provided and 70 percent being offered by private facilities and truck stops.[2] It is worth noting that Florida has a higher proportion of public to private parking spaces in comparison to other states.

The analysis revealed that private parking sites experienced a higher utilization rate (nearly 50 percent) during peak hours from 7:00 pm to 9:00 am, in contrast to public parking facilities across all districts. Furthermore, drivers tended to occupy private parking spaces for longer durations, which is attributed to the limited amenities at public locations, reservation systems implemented by some private establishments, and other contributing factors.

The analysis also highlighted that some truck parking facilities are overused while others are underused due to a lack of awareness regarding their locations despite available capacity within the system. Additionally, in areas of higher utilization, trucks were observed parking in unauthorized areas, typically along interstate on-ramps and off-ramps.

According to the analysis, District Six has nine (9) private spaces and one (1) public space per 100,000 daily truck miles traveled, which is the lowest number of truck parking spaces available compared to all other FDOT Districts.[3] The study's results were utilized in developing the *Statewide Truck Parking Study*, which aimed to provide recommendations to overcome the regional and facility-level truck parking challenges.

2.10 Statewide Truck Parking Study

Published by: Freight and Rail Office (FRO)

Latest Update: 2020

[2] Reference **Table ES 1 | Truck Parking Supply by District** on page vi (7 of 124).
[3] Reference **Table 3 | Truck Supply per 100K Daily Truck Miles Traveled by District** on page 13 (23 of 124).

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/rail/publications/studies/trucking/florida-statewide-truck-parking-study_final_march-2020.pdf?sfvrsn=98bcb129_4

The *Statewide Truck Parking Study*, developed in collaboration with the District Freight Coordinators (DFCs), FDOT Offices, partner agencies, and freight stakeholders, provides a comprehensive assessment of ongoing truck parking projects and initiatives across the State while offering planning-level recommendations for short-, medium-, and long-term implementation strategies.

The study began by identifying the State's top 20 areas of concern, characterized by a consistent pattern of unauthorized and over-utilized truck parking locations. Five areas were identified as "hot spots" in Districts Two, Five, Six, and Seven using a volume-to-capacity index that considers truck parking demand relative to available parking spaces. The locations were individually analyzed to tailor solutions to the area's truck parking challenges. Implementation plans were developed based on this analysis and additional stakeholder input. The following is a summary of the time-based recommendations.

- **Short-term** recommendations prioritize immediate needs by supporting ongoing truck parking projects and developing new initiatives like the Truck Parking Improvement Program (TPIP).
- **Medium-term** recommendations involve leveraging TPIP and public-private partnerships (P3s) to identify and implement truck parking solutions. After four years, a reassessment of statewide truck parking needs is proposed to evaluate the progress of short-term and medium-term action plans.
- **Long-term** recommendations include monitoring the development of technologies and trends, such as connected and autonomous vehicles (CAV) and truck electrification that could impact freight transportation.

Seven priority areas were identified with parcel development opportunities for truck-only parking facilities near MIA, Hialeah Gardens, Opa-Locka, and the Golden Glades interchange. These areas will be further analyzed and considered for future freight project prioritization in Miami-Dade County.

2.11 Polk County Freight Facility Pilot Report

Published by: Transportation Data and Analytics (TDA) Office

Latest update: 2018

Document Link: https://fdotsitefinitypreprod.blob.core.windows.net/sitefinity/docs/default-source/statistics/docs/polk-county-freight-facility-pilot-report-may-2018.pdf?sfvrsn=a5d3c67e_0

The *Polk County Freight Facility Pilot Report* was initiated to aid in the development of a new SIS facility designation for freight activity areas. This pilot project aimed to delineate freight activity areas, establish a methodology that can be implemented statewide, and formulate initial policy recommendations for potential designation criteria.

The methodology used to produce the freight clusters is as follows:

1. Gather data on freight-related building size, employment, and truck traffic from the Department of Revenue, Department of Economic Opportunity, and the FDOT TDA Office
2. Validate and refine input datasets to exclude records that do not contribute to the identification of Freight Activity Areas (FAAs)
3. Conduct independent point interpolation analyses for each of the datasets
4. Utilize Weighted Overlay analysis to combine the results of the three-point interpolation analyses

5. Reevaluate the final overlay analysis to generate freight clusters (potential FAAs)
6. Calculate summary statistics for each cluster, including Total Living Area and Total Employment
7. Choose the top three potential FAAs for further in-depth analysis and confirmation
8. Propose initial designation criteria for statewide analysis based on the thresholds identified for the top three potential FAA

The pilot study's results yielded a reasonable and appropriate methodology for statewide use. This methodology is anticipated to be utilized as the basis for upcoming tasks within this effort to identify FAAs in Miami-Dade County.

2.12 Context Classification Guide

Published by: OPP

Latest Update: 2022

Document Link: https://nflroads.com/CS/Context Classification Guide 2022_lo-res.pdf

The *Context Classification Guide* provides a framework for classifying roadways based on their surrounding land use, development patterns, and roadway connectivity. It can be used as a guide for the design and operation of roadways to promote safety, economic development, and quality of life. FDOT has adopted a roadway classification system comprising eight context classifications, each with unique design criteria and standards intended to address the specific needs of that context classification.

The Guide identifies freight facilities as a "Special District" (SD) that require additional coordination with the State Complete Streets Program Manager to determine the context classification of such districts. Given their distinctive size, function, or configuration, SDs draw a unique blend of users and generate distinct travel patterns. The document supplies a set of illustrative indicators for designers to consider when assessing project-specific requirements linked to freight activity. These indicators include designated truck routes, truck volumes, vehicle classification counts, freight loading areas, truck parking, and the current/future sites of freight trip generators, such as industrial land uses. The Guide will serve as a tool to ensure the region's unique freight characteristics are taken into consideration when identifying projects and concept development.

2.13 Complete Streets Implementation Plan

Published by: OPP

Latest Update: 2015

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/roadway/completestreets/files/final-csi-implementation-plan.pdf

The *Complete Streets Implementation Plan* outlines a five-step framework and process to seamlessly incorporate a Complete Streets approach into FDOT's procedures for planning, designing, constructing, reconstructing, and operating a context-sensitive transportation network that caters to all modes of travel. While the ultimate priority will be addressing freight needs, the Plan will be used as an approach reference for the County, when feasible.

The Implementation Plan recommends incorporating a complete streets approach into all of FDOT's core documents. This change would involve revising guidance, standards, manuals, and policies to align with the objectives of the Complete Streets Policy. It also provides specific updates for ten prioritized FDOT documents and proposes a new document, emphasizing the integration of a context-sensitive approach in planning, design, and operations. Additionally, the plan addresses the need for a shift in FDOT's decision-making processes, including updates, cultural changes, and improved communication strategies, while also emphasizing stakeholder engagement for an accurate interpretation of the Complete Streets approach.

Modifications in performance measurement approaches are necessary to implement a Complete Streets approach within FDOT successfully. This effort includes aligning criteria for success across various scales within the goals of the Complete Streets Policy and outlining strategies for integrating these measures into decision-making. Effective communication and collaboration are key factors during implementation, with the plan identifying stakeholders and providing a framework for their engagement. Lastly, ongoing

education and training are emphasized to instill a culture within FDOT that prioritizes the diverse needs of all transportation system users, with a comprehensive framework provided for continuous training of staff, consultants, and external partners involved in implementing Complete Streets.

2.14 District Seven Freight Roadway Design Considerations

Published by: Office of Intermodal Systems Development

Latest Update: 2015

Document Link: https://tampabayfreight.com/wp-content/uploads/FRDC_Complete_DRAFT.pdf

The *District Seven Freight Roadway Design Considerations* (FRDC) were created based on recommendations from the *Tampa Bay Regional Strategic Freight Plan*. The main objectives of this plan are to optimize freight mobility integration within roadway planning and design processes for specific non-limited access freight facilities. This initiative involves identifying guiding principles and strategies for this integration. In addition, the emphasis is on seamlessly incorporating and documenting considerations related to goods movement throughout all stages of the roadway implementation process. These design considerations will be taken into account when identifying infrastructure support improvements within Miami-Dade County.

To complement existing manuals, especially the *FDOT PD&E Manual* and the *Plans Preparation Manual*, the focus is on providing guidance to planners and engineers. This guidance aims to enhance the reflective nature of judgments made while applying these manuals, ensuring a deliberate approach to truck operations.

The goal of the FRDC is to outline design strategies based on the Freight Activity and Land Use Compatibility Analysis (FALUCA) that balances and accommodates truck movements with other roadway users and the surrounding community based on four area types: Low Activity Areas, Community Oriented Areas, Freight Oriented Areas, and Diverse Activity Areas. Design considerations identified as critical to freight and truck operations within each of these areas include:

- Design vehicle
- Truck turning encroachment
- Design intent
- Typical Section design
- Intersection configurations
- Right-turn treatment
- Left-turn design
- Pavement bulb-outs and U-turns
- Access management
- Truck Parking
- Traffic control devices
- Signal phasing

2.15 Transportation Systems Management & Operations Strategic Plan

Published by: State Traffic Engineering and Operations (TEO) Office

Latest Update: 2017

Document Link: https://teo.fdot.gov/architecture/architectures/d1/resources/2017-tsm-and-o-strat-plan-aug-24-2017-final.pdf

The *Transportation Systems Management & Operations* (TSM&O) *Strategic Plan* outlines the program's mission, goals, objectives, and priority focus areas (PFA). The plan includes actionable steps that are specific, measurable, achievable, relevant, and time-bound (SMART). These steps are aimed to be completed within the next three to five years.

The Plan identifies six PFAs that can aid in achieving the program's goals.

1. **TSM&O Mainstreaming:** Includes the integration of TSM&O elements into every phase of transportation projects
2. **Arterial Management:** Includes strategies such as regular retiming and coordination and can include other strategies identified in other FDOT Plans such as pedestrians, freight, transit, and freight prioritization
3. **Connected Vehicles:** Includes various communication technologies like dedicated short-range communications (DSRC) for vehicle-to-infrastructure (V2I) communication, as well as specific messaging protocols for safety and transit purposes at both statewide and regional levels
4. **Express Lanes:** Includes dynamic pricing, reversible lanes, improved operational efficiency, robust enforcement measures, and effective incident management
5. **Freeway Management:** Includes established and emerging tactics like ramp metering (RM), Hard Shoulder Running (HSR), and Integrated Corridor Management (ICM), as well as longstanding strategies such as SunGuide, FL511, Regional Transportation Management Center (RTMC) operations, Traffic Incident Management (TIM), Rapid Incident Scene Clearance (RISC), Severe Incident Response Vehicles (SIRV), and Road Ranger Service Patrol (RRSP)
6. **Information Systems:** Includes SunGuide, FL511, Data Integration and Video Aggregation System (DIVAS), data archival systems, and performance assessment tools

The plan will be used as a reference for implementing TSM&O strategies within prioritized freight projects, aligning the County with statewide goals.

3.0 District Plans, Studies, and Publications

FDOT District Six has undertaken a structured approach to freight planning and programming since the formalization of its District Freight Program with a focus on critical issues that affect freight and goods movement in the South Florida region. The following section outlines key planning and study efforts District Six undertook to enhance freight mobility and improve economic competitiveness in Miami-Dade County and the surrounding region.

3.1 Sub-Area Freight Mobility Improvement Plans

District Six has undertaken comprehensive freight mobility improvement plans for eight sub-areas in Miami-Dade and Monroe counties that collectively are intended to enhance freight movement throughout the South Florida region. Sub-area Freight Improvement Plans were conducted for the Town of Medley, City of Opa-Locka, Miami River, City of Doral, Miami Gardens, and Hialeah between 2016 and 2020. The Freight Improvement Plans for Homestead and Monroe County were completed and published in 2023. These documents assess freight accessibility, identify alternative growth scenarios for critical roadway and multimodal corridors, focus on specific regional issues like truck parking availability, and propose project and programmatic strategies to enhance freight access and mobility throughout District Six.

3.1.1 Town of Medley Freight Mobility Improvement Plan

Published by: FDOT District Six Office of Modal Development

Latest Update: 2017

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/rail/publications/d6/medley-freight-study-2017.pdf?sfvrsn=fa905405_2

The Town of Medley, which is situated in the northwest of Miami-Dade County, plays a crucial role in South Florida's economy. This is because of its close proximity to vital freight and logistics hubs and regional transportation facilities such as US-27, Florida's Turnpike, MIA, FEC Railway, and PortMiami. With more than 1,800 warehouses and distribution centers, the Town of Medley has become a prime location for industrial development. This has resulted in a concentration of industrial and freight-related logistics activities, which has caused an increase in traffic congestion on the local roadway network.

The plan's alternative scenarios evaluated the study area based on current and freight patterns, truck movements, and high and low freight growth scenarios for Post-Panamax vessels entering Florida ports. A no-build scenario was also evaluated.

In addition to the growth scenarios, various stakeholders, including local government staff and business and property owners/managers, were interviewed for feedback and insight on the area's issues and needs related to freight mobility and congestion. A common theme found throughout these discussions included safety and connectivity concerns.

- **Short-term** recommendations include resurfacing, geometric reconstructions, operational improvements, and access management projects on W 68th St, NW 74th St, NW 103rd St, NW 138th St, and Hialeah Gardens Blvd.
- **Medium-term** recommendations include capacity, new construction, operational improvements such as dedicated left turn lane(s) on corridors such as NW 97th Ave, NW 89th St, US-27 (NW S River Dr/Okeechobee Rd), and managed lanes for express bus on SR-826 (Palmetto Expressway).
- **Long-term** recommendations include truck-only lanes, dynamic routing for freight vehicles, direct access ramps for transit, and implementing limited stop enhanced bus service on US-27 (Okeechobee Rd) and SR-826 (Palmetto Expressway).
- **Citywide** recommendations include monitoring rail movements along the FEC railroad corridor, rail grade separations at affected locations, and multimodal projects that reduce the demand for local automobile travel.

3.1.2 City of Opa-Locka Freight Implementation Plan

Published by: FDOT District Six Office of Modal Development

Latest Update: 2017

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/rail/publications/d6/opa-locka-freight-study-2017.pdf?sfvrsn=1e6dc721_2

The City of Opa-Locka, in central Miami-Dade County, is strategically located near major freight hubs such as PortMiami, MIA, and the FEC and CSX rail corridors. Given that a significant portion of Opa-Locka is designated for industrial use, it has historically attracted industries that include recycling, salvage, and industrial manufacturing businesses that may otherwise not be allowed in surrounding municipalities. Notable issues identified within the study area include older roadway infrastructure and access configurations, localized flooding, and limited developable land within industrial zones and land uses.

The Implementation Plan focuses on ensuring efficient access to regional and international markets, redevelopment of underutilized sites/parcels, and maximizing opportunities for existing businesses in the short term. Five key industrial areas were identified within the study area and examined for growth potential. Roadway and other multimodal transportation projects were identified and developed to

enhance Opa-Locka's freight and logistics network. The Implementation Plan emphasizes enhancing access and circulation around the Miami-Opa-Locka Executive Airport and leveraging the Amazon fulfillment center located at the airport.

- **Short-term** recommendations include capacity and operational improvements near Miami-Opa-Locka Executive Airport to accommodate traffic from the Amazon fulfillment center. Other short-term initiatives primarily involve operational improvement projects at the corridor level, mainly on NW 42nd Avenue/Douglas Rd. Connector
- **Medium-term** recommendations include access management improvements along roadways intersecting the new Amazon facility, which include NW 42nd Avenue/Douglas Rd. Connector, NW 135th St, NW 127th St, and SR-924 (Gratigny Pkwy).
- **Long-term** recommendations include capacity, interchange reconstruction, and corridor-level improvement projects on NW 22nd Ave and NW 27th Ave.
- **Citywide** recommendations include implementing security programs at designated industrial areas, investigating innovative opportunities for brownfield redevelopment, preserving and expanding access to rail-served properties, and improving commuter access from the Tri-Rail Station to the Amazon facility.

3.1.3 Miami River Freight Improvement Plan

Published by: FDOT District Six Office of Modal Development

Latest Update: 2018

Document Link: https://www.miamirivercommission.org/PDF/Miami-River-Freight-Study-Final-Report.pdf

The Port of Miami River comprises shallow draft shipping firms near western Miami-Dade freight and logistics hubs, including existing railroad access to the FECR and CSX rail corridors. The western area of the river is mainly designated for marine industrial uses; the middle section allows mixed-use redevelopment, which currently contains numerous boatyards; and the eastern portion accommodates dense, high-rise business and housing development in downtown Miami and Brickell.

The Miami River faces challenges with aging and non-modernized industrial buildings and deteriorated marine and upland infrastructure. Recommendations from the assessment include improvements to roadways, rail crossings, and supporting multimodal facilities. Ensuring improved connectivity to the regional transportation network and preserving marine industrial land uses, especially along the river and the Downtown Lead railroad spur were noted as vital for the continued viability of freight and logistics operations along the Miami River.

- **Short-term** recommendations include improving Miami River navigation channel signing and aids, upgrading railroad crossings, improving signal coordination, transit running time adjustments, and interchange improvements on NW 12th Ave, NW 27th Ave, NW 32nd Ave, NW 36th St, NW North River Dr, and NW South River Dr.
- **Medium-term** recommendations include developing truck staging areas, roadway reconstructions, access management improvements on NW 37th Ave and NW North River Dr, and implementing the Miami River Greenway corridor.
- **Long-term** recommendations include developing a truck travel center and implementing programmed bascule bridge maintenance and reconstruction projects along NW North River Dr and NW 22nd Ave.

- **Citywide** recommendations include pursuing the designation of the Miami River as a Marine Highway, preserving rail-served industrial properties along the Downtown Lead rail corridor, and preserving marine industrial zoning.

3.1.4 City of Doral Subarea Freight Mobility Improvement Plan

Published by: FDOT District Six Office of Modal Development

Latest Update: 2018

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/rail/publications/d6/doral-freight-study-2018.pdf?sfvrsn=798fe538_2

The City of Doral, located in the western portion of Miami-Dade County, has one of Florida's largest concentrations of industrial, freight, warehousing, and distribution center facilities, totaling over 65 million square feet. Bounded by Florida's Turnpike, SR-826 (Palmetto Expressway), and SR-836 (Dolphin Expressway) which provide critical connections to MIA, PortMiami, and FEC and CSX railyard hubs, the City has access to regional, state, and global markets.

Despite a history of industrial development, the area currently experiences issues affecting freight mobility on the local transportation network, primarily due to traffic congestion caused by the expansion of a mixed-use urban area that incorporates both freight and non-freight related uses, such as residential, commercial, and hotel/resort development. The recommendations were developed by following the guidance outlined in the FRDC. The City of Doral was categorized into two context types: Freight Oriented Areas, which have dominant freight land uses and accommodations for high percentages of heavy truck movements, and Freight Diverse Areas, which are a mix of freight and non-freight-oriented areas. The short, medium, and long-term recommendations prioritize different segments of the vital corridors within the City, such as NW 12th St, NW 25th St, NW 36th St, US-27 (Okeechobee Rd), NW 72nd Ave, NW 102nd Ave, NW 117th Ave, and SR-836 (Dolphin Expressway).

- **Short-term** recommendations include signal timing improvements, intersection and geometry reconstructions, and capacity projects.
- **Medium-term** recommendations include intersection modifications and capacity projects for new two or four-lane divided roadways.
- **Long-term** recommendations include the implementation of managed use lanes, lane reconfigurations, access management improvements, and implementation of CAV technology.

3.1.5 City of Miami Gardens Truck Parking Assessment Report

Published by: FDOT District Six Office of Modal Development

Latest Update: 2019

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/rail/publications/d6/miami-gardens-freight-study-truck-parking-2019.pdf?sfvrsn=2d09f33c_2

The *City of Miami Gardens Truck Parking Assessment Report* supplements the Miami Gardens Freight Mobility Implementation Plan by focusing on the truck parking shortage as a stand-alone issue for the sub-area. The sub-area included Miami Gardens and Miami Lakes, along with the census-designated places of Country Club, Palm Springs North, and Ives Estates.

The assessment identifies suitable sites for publicly owned and operated truck parking facilities, similar to sites suggested in the Opa-Locka study. Two parcels within the Opa-Locka Airport were recommended to be explored further for truck parking development. Additional strategies involve ongoing assessments of shared parking opportunities in collaboration with public and private partners, as seen in the adaptive use concepts for the Hard Rock Stadium and Calder Racetrack and potential shared-use facilities at the North Dade Landfill or Drivers Club sites. An innovative approach is suggested for infill truck parking sites, exploring designs incorporating smaller geographically dispersed locations with limited to no amenities

that may attract drivers currently forced to park on roadway shoulders but with added physical separation and enhanced safety through signage and pavement markings.

3.1.6 Hialeah Freight Mobility Implementation Plan

Published by: FDOT District Six Office of Modal Development

Latest Update: 2020

Document Link: Link not currently available

The City of Hialeah, located in northwest Miami-Dade County, is home to approximately 55.4 million square feet of industrial buildings with opportunities for growth and future development within the northwest corner of the city limits. The study area is less than five miles from MIA and 25 miles from PortMiami. Despite Hialeah's strong freight market, a primary challenge includes the inability to consolidate existing land parcels, which could be used to operate and handle medium to large-scale freight facilities. This has resulted in freight-intensive land uses and businesses being developed adjacent to residential and other non-compatible land uses, causing increased congestion and deterioration of the transportation system. Like the Miami Gardens Plan, the Hialeah Sub-Area Study also included a truck parking analysis element.

The truck parking assessment used for this study area was consistent with the methodology identified in the FDOT Assessment for Potential Truck Parking Locations within Miami-Dade County. Given that the City of Hialeah is a heavily developed area, only three publicly owned sites met the potential truck parking use criteria. As part of the recommendations, it was suggested that FDOT consider P3s and land swap opportunities with Miami-Dade County. Of the three sites considered, Site 1 – Opa-Locka West Airport and Site 3 – Miami Dade Public Works were recommended for further study.

3.1.7 Monroe County Freight Improvement Plan

Published by: FDOT District Six Office of Modal Development

Latest Update: 2023

Document Link: Link not currently available

The *Monroe County Freight Improvement Plan* focuses on enhancing freight mobility along the US-1 corridor that runs through the Florida Keys from Key Largo to Key West. Despite a less visible freight presence compared to neighboring Miami-Dade County, the freight and logistics network in Monroe County plays a vital role in supporting industries such as seafood, agriculture, construction, tourism, and consumer goods distribution. The region's economy heavily relies on trucking, particularly on the US-1 Overseas Highway, which doubles as a scenic route attracting tourists and visitors throughout the year.

The US-1 corridor in Monroe County faces unique challenges, including growth management regulations restricting additional through travel lanes, which limited project recommendations to improvements such as turn lanes, access management, and intersection upgrades. The transportation network is evaluated through various growth scenarios, resulting in proposed improvements primarily centered around roadway enhancements. Recommendations are categorized into short-, medium-, and long-term implementation time frames, addressing nine intersections and 26 corridor segments. The study also identifies a potential truck parking facility at the existing FDOT weigh station at Mile Marker 86.

Implementing the proposed intersection and roadway improvements will address traffic "friction" or congestion, improve free-flow operational speeds, and maintain the current Level of Service (LOS) C standard. Future implementation of these recommendations will contribute to enhanced freight

operations and improved mobility for all users along the US-1 corridor in the Florida Keys, ensuring a sustainable transportation network for the region.

3.1.8 Homestead Freight Improvement Plan

Published by: FDOT District Six Office of Modal Development

Latest Update: 2023

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/rail/publications/d6/2023-homestead-freight-improvement-plan.pdf?sfvrsn=3756ccff_1

Homestead and Florida City, located in the southern portion of Miami-Dade County, has a diverse and extensive freight and logistics presence, supporting various industries such as agriculture, manufacturing, construction, and consumer goods distribution. While not as visibly prominent as the historically freight-centric areas of northern Miami-Dade County, Homestead, and Florida City are increasingly playing a more critical role in the local and regional economy due to current and forecasted growth in population and employment, which has driven much of this recent growth in freight activity and businesses. Industrial concentrations along the CSX Railroad and former FEC Railroad corridors have contributed to the growing freight presence. The Homestead Air Reserve Base and the Homestead Miami Speedway are experiencing significant growth in freight traffic due to the development of emerging areas nearby. Additionally, the recently approved expansion of the Urban Development Boundary (UDB) will accommodate a large-scale industrial park adjacent to the Turnpike at the SW 112th Avenue interchange, further contributing to this growth.

The proposed projects and recommendations to reduce congestion and maintain existing LOS were categorized into short-, medium-, and long-term improvements. These improvements generally include adding more roadway capacity, improving traffic signals, phasing, and new signal warrants, redesigning intersections, and making operational improvements to address turning movements and access management. Key highway corridors such as US-1, SW 137th Ave, SW 152nd Ave, SW 177th Ave, and Florida's Turnpike will have dedicated right and left-turn lanes to manage traffic more effectively.

3.2 Miami-Dade Truck Parking Facility Assessment

Published by: FDOT District Six Office of Modal Development

Latest Update: 2018

Document Link: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/rail/publications/d6/assessmentpotentialtruckparking_aug2018.pdf?sfvrsn=2196e313_2

The *Miami-Dade Truck Parking Facility Assessment* was developed to identify and evaluate the feasibility of advancing one or more truck parking facilities within the County. The Assessment established a three-tiered methodology to assess previously and newly identified potential truck parking locations.

- **Tier 1: Preliminary Screening** - A reassessment of the previously eliminated truck parking sites from the Miami-Dade County Transportation Planning Organization (TPO) *Development of Truck Parking Facilities in Miami-Dade County Phase II: Options for Implementation* to determine if the conditions had changed. These sites were reevaluated based on various criteria, such as zoning, existing and future land use, accessibility, visibility, and economic feasibility, using a negative scoring system. Of the 11 potential sites analyzed, four proceeded to Tier 2.
- **Tier 2: Detailed Screening** – This phase reassessed the remaining sites identified in the *TPO Phase II Study*. Of the 14 potential sites examined, seven were found to have fatal flaws, including issues

related to development regulations with airport runway protection zones. Additionally, two sites were eliminated due to potential contamination concerns. The final assessment in this tier led to five sites being scored, ranked, and subsequently selected to proceed to Tier 3. The screening excluded three sites from the *TPO Phase II Study* due to various reasons (e.g., ongoing construction, non-viability, FAA regulations).

- **Tier 3: Engineering Feasibility and Stakeholder Support Screening** – This final phase involved creating conceptual designs for the remaining sites to determine their physical capacity and construction costs. Large (35,000 sq. ft.) and small (4,500 sq. ft.) building options were considered based on available site acreage. Traffic data and stakeholder outreach were also conducted. Ultimately, only one site (Site X) was deemed feasible for truck parking development, as the other four were already planned for different developments.

The proposed site for the truck parking facility is located on NW 7th St, in the southeast quadrant of the SR-826 (Palmetto Expressway) and SR-836 (Dolphin Expressway) interchange. Based on initial conceptual designs, Site X can accommodate up to 192 truck parking spaces, three maintenance facilities, two diesel fuel pumps, and a 10,000 SQ FT building. The assessment also identifies risks related to the *Strategic Miami Area Rapid Transit* (SMART) *Program*, suggesting potential conflicts due to proposed alignments and stations near the proposed site. A recommendation is made to perform a Phase II analysis for 19 other sites owned by FDOT or Miami-Dade County. Site X and the additional 19 sites will be further analyzed and taken into consideration when identifying future project tasks in the County.

4.0 Partner Plans, Studies, Publications

The following section provides an overview of key planning documents, studies, and publications developed by local government agencies that collectively guide and impact the overall multimodal freight transportation and infrastructure vision and investment priorities for Miami-Dade County. This review included documents developed by key partner agencies, including the Miami-Dade TPO, PortMiami, and the Miami-Dade Aviation Department, which oversees MIA and other general aviation airports throughout the County.

4.1 Miami-Dade 2045 Long Range Transportation Plan and Amendments

Published by: Miami-Dade TPO

Latest Update: 2019

Document Link: https://gfnet.sharefile.com/share/view/s19383cc6e73d495ca029ca7623ccf33c

The *2045 Miami-Dade Long Range Transportation Plan (LRTP)* is a federally mandated long range planning document with a planning horizon to 2045. It was developed through the collaboration of the TPO, FDOT, local governments, partnering agencies, other essential stakeholders, and the general public. The LRTP incorporates all modes of transportation in Miami-Dade County and addresses mobility, safety, security, resiliency, sustainability, and the impacts of emerging technology and innovation on transportation infrastructure. Scenario planning was utilized to establish a tiered approach that identifies and defines projects. The projects were then prioritized for the development of the Cost Feasible Plan. The projects also underwent an environmental screening as part of the Efficient Transportation Decision Making (ETDM) process to identify impacts before being included in the LRTP.

The LRTP highlights mobility choices, enhancements to connectivity, and advancements to the SMART Program[4], which has been identified by the TPO as its highest priority through illustrative projects to facilitate efficient and safe mobility for people and freight. The LRTP recognizes the importance of coordinating the SMART Plan with freight projects to advance an integrated multimodal system to address travel demand in Miami-Dade County.

Financial resources were allocated to ensure a minimum level of investment for non-motorized congestion management and freight projects in the LRTP. The 2045 Freight Set-Aside for the 21-year total sums up to $243 million, broken down into the following priorities:

- Priority I – 2025: $8 million
- Priority II – 2026-2030: $53 million
- Priority III – 2031-2035: $57 million
- Priority IV – 2036-2045: $125 million

Priority I improvement projects include the projects identified in the Transportation Improvement Plan (TIP) and the highest-ranked projects funded for construction by 2025. Priority projects specific to freight include implementing CAV technology, traffic operations improvements, adaptive signal systems, roadway widening, truck parking facilities, design and geometric modifications, access management improvements, and interchange modifications.

Amendments to the LRTP can occur to incorporate new projects, adjust existing ones in response to evolving priorities, or capitalize on unique opportunities. Amending the LRTP to include projects arising from emerging needs is carried out annually throughout the five-year planning cycle. Approval from the Miami-Dade TPO Governing Board is required for any amendments, and the proposed changes undergo a public review comment period. Additionally, a re-demonstration of fiscal constraint is necessary as part of the amendment process.

The Miami-Dade TPO's *2050 LRTP* update, also known as *SMART MAP 2050*, is underway following a five-phase process that work together to update the Plan on a technical and community aspect. The phases focus on people, current and projected demographics, performance measures, project and funding prioritization, and policy adoption. The *SMART MAP 2050* update is scheduled for adoption by the Miami-Dade TPO Governing Board in Summer 2024.

4.2 Miami-Dade County Freight Plan Update

Published by: Miami-Dade TPO

Latest Update: 2018

Document Link: https://www.miamidadetpo.org/library/studies/freight-plan-update-2018-06.pdf

The *Miami-Dade County Freight Plan Update* aims to highlight the significance of freight mobility in the County to facilitate the application for a designated Freight Logistics Zone (FLZ) through collaboration with freight stakeholders. The plan compiles an updated list of transportation needs and the necessary improvement projects to be evaluated for potential funding in developing the TPO's 2045 LRTP. However, given the cost constraints of the LRTP, collaborative efforts with public and private sectors are essential to securing additional funding resources. The focus includes leveraging public/private partnerships, monitoring critical designations for freight corridors and airports, coordinating with

[4] The Strategic Miami Area Rapid Transit (SMART) Program

PortMiami's intermodal terminal plans, developing truck parking facilities, and promoting economic contributions to the freight industry.

Projects were identified as Freight "Related," meaning they will have an impact on a broader transportation purpose or "Direct," which will immediately impact freight mobility. The lists for each mode were prioritized by identifying short-, mid-, and long-term proposals for construction. Key strategies encompass utilizing existing funding programs, monitoring critical freight designations, coordinating with local stakeholders, evaluating the effectiveness of the freight system, and engaging the freight community in identifying bottlenecks. Additionally, efforts are directed towards ensuring trade and logistics remain targeted industries, supporting workforce development programs, developing and expanding innovative pilot programs, monitoring developments in ILCs, and promoting regional freight mobility by aligning county plans with the broader South Florida region.

An update to the *Miami-Dade County Freight Plan* is underway, with an anticipated completion date of Spring 2024 in coordination with *SMART MAP 2050*. The update will reflect emerging trends affecting the county, such as global supply chain disruptions, nearshoring, and alternative fuels and technology, and will identify multimodal freight needs for inclusion in the LRTP. The identified freight needs are part of a review of Capital Improvement Plans (CIPs), Master Plans, Project Working group meetings, and modal partner interviews with PortMiami, Miami International Airport, FEC, and CSX.

4.3 Southeast Florida Regional Freight Plan

Published by: Miami-Dade, Broward, and Palm Beach Transportation Planning Agency (TPA)

Latest Update: 2014

Document Link: https://www.miamidadetpo.org/library/plans/southeast-florida-regional-freight-plan-final-report-2014-update.pdf

The *Southeast Florida Regional Freight Plan* was developed through a partnership between FDOT, the Miami-Dade TPO, the Broward MPO, and the Palm Beach TPA. The Plan provides an updated overview of the freight transportation system, offers insight into key logistics infrastructure elements, highlights significant state, national, and international developments affecting the region, documents the economic impacts of the freight industry in Southeast Florida, and outlines a current inventory of prioritized freight requirements. Documentation of the region's successes, strengths, next steps, and challenges are outlined in the Plan, using 2040 as the planning horizon.

The region's identified freight needs for seaports, railroads, airports, and highways were assessed and prioritized based on various factors, including master plans, capital improvement programs, LRTPs, a hotspot analysis, and stakeholder interviews. The prioritization methodology aligns with the 2010 Plan and was vetted and approved by the Regional Transportation Technical Advisory Council (RTTAC) and SEFTC. The 2014 update incorporated minor enhancements to the ranking process, such as increased disaggregation of highway criteria and the inclusion of an overall project impact score for other modes. These prioritized needs encompass all regional freight requirements without constraints to "cost-feasible" projects. The top 10 roadway freight needs projects specifically for Miami-Dade County include the addition of managed lanes, interchange improvements, widening, and overall infrastructure repair and improvements to major roadways such as SR-826 (Palmetto Expressway) and US-27 (Okeechobee Road).

4.4 PortMiami Master Plan 2035

Published by: Miami-Dade County

Latest Update: 2012

Document Link: https://www.miamidade.gov/portmiami/library/2035-master-plan/complete-master-plan.pdf

The *PortMiami Master Plan* bases its projections on five-, 15-, and 25-year cruise and cargo traffic forecasts derived from market assessments, existing and planned User Agreements, and the Port's Economic Impact Analysis. These forecasts inform a sustainable business plan and infrastructure framework to meet projected demands, ensuring fiscal responsibility and community obligations. The Master Plan covers essential tasks, including berth assessments and infrastructure improvements, critical for the Port's long-term development. It serves multiple purposes, such as establishing capital programs, fostering political consensus on the Port's vision, justifying environmental permits, integrating with the County's Comprehensive Development Plan, and serving as a planning tool for grant applications. These purposes will all be referenced when identifying needs and improvements as part of the Freight Improvement Plan development.

PortMiami handles general cargo, including fruits, apparel, electronics, and industrial equipment. Cargo operations involve Roll-on/Roll-off (Ro/Ro), Lift-on/Lift-off (Lo/Lo), break-bulk, and vehicle exports. The Port permits container lines and stevedores, with major operators like Seaboard Marine, South Florida Container Terminal (SFCT), and PortMiami Terminal Operating Company (POMTOC). Ongoing improvements align with the 2020 Cargo Master Plan, expanding berths, enhancing functionality, and upgrading infrastructure to accommodate larger vessels, improve access, and optimize operational efficiency. Projects include dredging, a new tunnel, rail enhancements, software modernization, gate expansion, storm protection, and cargo yard improvements.

In 2022, PortMiami was granted a $16 million Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant for its NetZero: Cargo Mobility Optimization and Resiliency Project. The NetZero program aims to transition the entire cargo movement chain into a carbon-neutral operation, starting from the port's channel to its final distribution site. As part of the program's initiative, the development of an inland port and export consolidation center is planned to act as an intermodal distribution hub. An inland port will benefit the port by increasing cargo volume and regional economic competitiveness. The total program cost is expected to be approximately $700-$800 million, with the costs shared among the port, its partners, and federal/state grants. Over the next five years, the port is seeking $400-$500 million in grant funding for the electric infrastructure development. The PortMiami Net Zero Supply Chain Program will consist of:

1. Hybrid electric tugboats assisting cargo vessels in docking that will then connect to shore power
2. Electric container handling equipment is used to transload the cargo
3. Cargo is transported to Inland Port using electric locomotives in partnership with FEC
4. Cargo will be handled with electric handling equipment and technology once at the inland port
5. The electric truck fleet will provide final delivery to distribution centers

4.5 Miami International Airport Master Plan

Published by: Miami-Dade Aviation Department

Latest Update: 2015

Document Link: Link not currently available

Rather than presenting a separate master plan for each airport, the Miami-Dade Aviation Department (MDAD) has compiled individual analyses to be submitted as stand-alone Aeronautical Forecasts documents and Airport Layout Plan (ALP) sets to the FAA for review and approval. The ALP set discussed in this report outlines a 20-year development program for MIA from 2015 to 2035, detailing specific airport data, airspace surfaces, land use, property boundaries, and areas for future development.

MIA is strategically located to accommodate connecting traffic between North America, Latin America, Western Asia, and Europe. The ALP set, developed following FAA guidance, identifies potential property acquisitions and highlights three strategic development options to meet future demand. These options include optimizing existing property, expanding the airport envelope through controlled property acquisitions, and addressing future challenges for general aviation and maintenance, repair, and overhaul (MRO) operations. The ALP set will be considered when identifying the infrastructure improvements for the development of the Freight Improvement Plan.

The aeronautical forecasts for MIA predict demand levels for various planning activity levels (PALs) until 2050. The ALP set, which is compliant with minimum airport design standards, provides insights into MIA's development phases from 2016 to 2035. The preferred development scenario includes modifications to taxiways, expansion of passenger terminals, construction of parking facilities, and enhancements to cargo facilities, among other initiatives. The report concludes with a phased development plan, categorizing initiatives into four five-year phases to guide capital planning and future growth. It is anticipated that future outreach efforts with the Miami-Dade Aviation Department will result in the availability of updated project lists, issues, and needs (especially highway and multimodal connections) that will be reviewed at that time.

4.6 Connecting the Highways Network: Missing Links

Published by: Miami-Dade TPO

Latest Update: 2017

Document Link: https://www.miamidadetpo.org/library/studies/connecting-the-highways-network-missing-links-final-report-2017-12.pdf

Connecting the Highways Network: Missing Links evaluates the current and planned highway network in Miami-Dade County to address the future demand for connectivity to major employment and activity centers. The primary emphasis is on the development and expansion of existing highway facilities, with identified missing links such as the extension of SR-826 (Palmetto Expressway) and connections between SR-112 (Airport Expressway), SR-874 (Don Shula Expressway), and SR-836 (Dolphin Expressway) Southwest Extension.

The study shows that SR-826 (Palmetto Expressway) Highway Extension from NE 167th/163rd St to SR-A1A demonstrates the highest vehicular demand, surpassing other missing highway links identified. The resultant vehicle miles traveled (VMT) and vehicle hours traveled (VHT) were compared for each alternative versus the No-Build conditions. The analysis indicates that the SR-826 (Palmetto Expressway) alternative is expected to have the most significant reduction in both metrics.

Additional high-capacity highway links are necessary throughout the County due to the disparity between demand growth and lane-mile expansion. Despite future investments in premium transit, population and employment growth forecasts indicate improved mobility options are necessary. The results presented in the study serve as a preliminary planning assessment, suggesting further, more detailed studies on corridor feasibility and the inclusion of additional corridors for prioritization based on demand.

4.7 Systemwide Level of Service Analysis Technical Memorandum

Published by: Miami-Dade TPO

Latest Update: 2022

Document Link: https://miamidadetpo.org/library/studies/systemwide-los-analysis-technical-memorandum-2022-03.pdf

The Systemwide Level of Service Analysis Technical Memorandum builds upon the 2013 Arterial Grid Analysis Study to perform trend analysis when evaluating the performance, current trends, and capacity of Miami-Dade's transportation system network. The analysis includes the County's roadway, transit, and non-motorized facilities.

Within the roadway network analysis, various roadway segments known to be essential for the mobility of people and freight were identified to have a LOS E or F. The segments were also identified as "priority corridors" if the operating speed during peak hours was 10 mph or lower than the posted speed limits and if there were no programmed improvement projects in the 2022 TIP or 2045 LRTP in addition to the failing LOS. The Memorandum provides improvement strategies and preliminary costs for the 32 identified road segments that meet the criteria to be a prioritized corridor. The improvements include widening, intersection improvements, signal retiming, and network connectivity, which will be considered during the development of the Freight Implementation Plan.