



FDOT District One

Freight Mobility & Trade Plan 2023



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Section I

INTRODUCTION



John Ringling Bridge, Sarasota

Purpose of the Freight Mobility and Trade Plan

This **Freight Mobility and Trade Plan (FMTP) update** will continue and update the work of the 2016 Florida Department of Transportation's (FDOT) District 1 (D1) FMTP by providing a simplified yet comprehensive assessment of the regional freight network. As the region and its economy continue to grow and change, it is critical to ensure that the plan reflects current and future needs.

By providing a clear and comprehensive guide for planners and engineers, the plan can inform future transportation plans and operational improvements. It also serves as a living document that can be updated as needed to reflect changes in the regional landscape, including new industries, infrastructure improvements, and technological advances. Moreover, the D1 FMTP will inform the Statewide FMTP, providing valuable input to the Investment Element and supporting requests for federal and state funding for enhancements or improvements to the existing regional freight network.

The plan's ultimate goals are to **Tell the Freight Story**, **Develop a Plan**, and **Implement the Plan** by effectively communicating the importance of freight and logistics in D1.



Florida's freight systems and assets are essential to the efficient movement of goods and commodities across all modes within the state. Florida's transportation system serves a diverse range of needs when it comes to freight by providing for the movement of goods across local, regional, interstate, and international integrated multimodal networks.

The FMTP is a comprehensive plan that identifies freight transportation facilities critical to the state's economic growth and guides multimodal freight investments in the state.

~FDOT FMTP 2020



Tell the Freight Story



Develop the FMTP



Implement the FMTP



SOUTH

NORTH

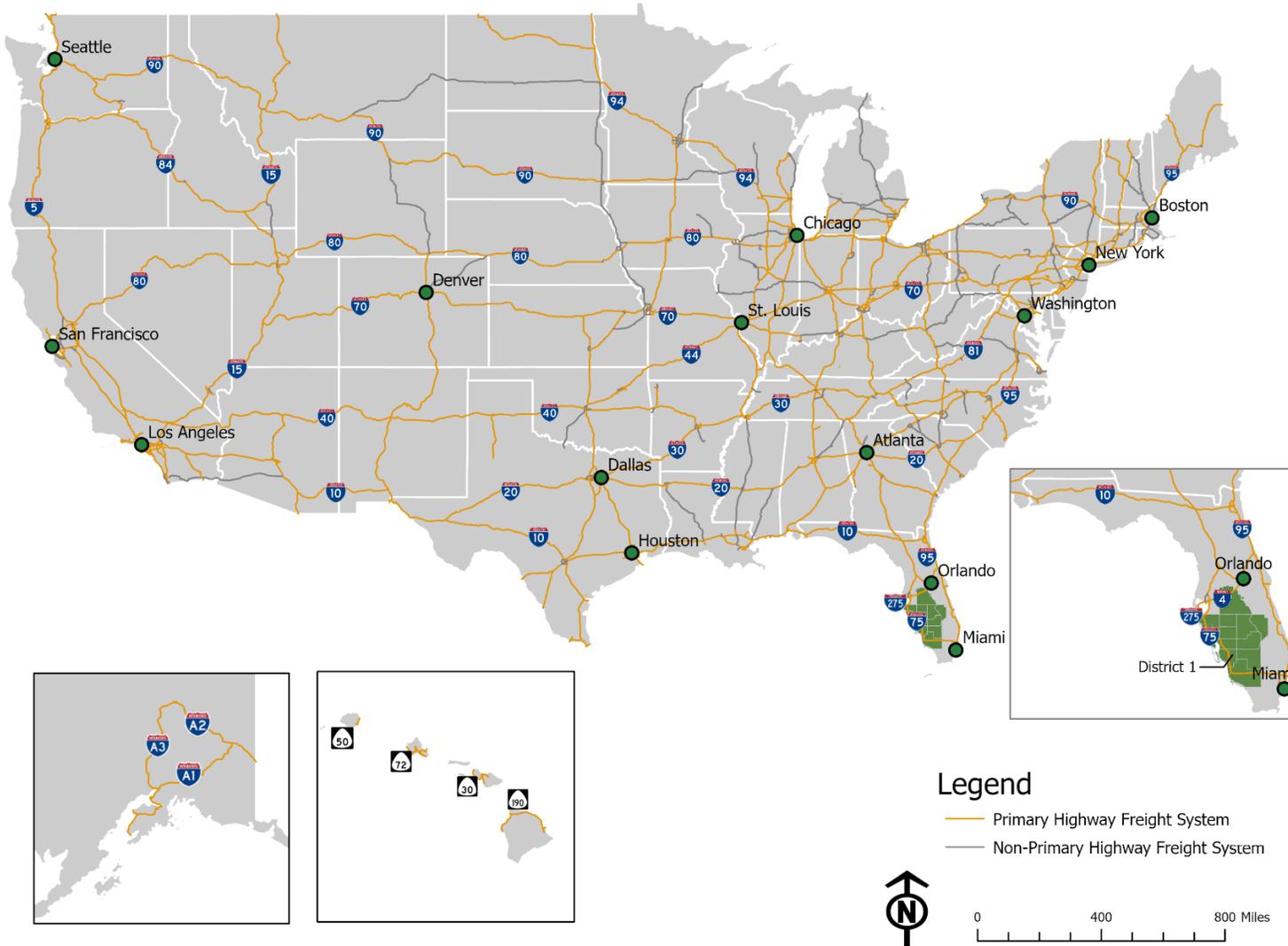
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What's New In This Plan?

National Highway Freight Network



The **Bipartisan Infrastructure Law (BIL)**, enacted in December 2021, continues funding improvements for the **National Highway Freight Network (NHFN)**. The NHFN is a system of highways, approximately 59,004 centerline miles in length, that have been identified as “critical” to the country’s freight transportation system. The BIL requires the Federal Highway Administration (FHWA) to direct federal resources and policies toward improving the highways included in the NHFN.

Figure 1 provides a map of the NHFN, which was not included in the 2016 D1 FMTP as it was a relatively new concept at that time. **Now, FDOT incorporates it into its freight planning efforts for the district.**

D1 includes three corridors as part of the NHFN:



Approximately 205 miles of I-75 in the western part of the District

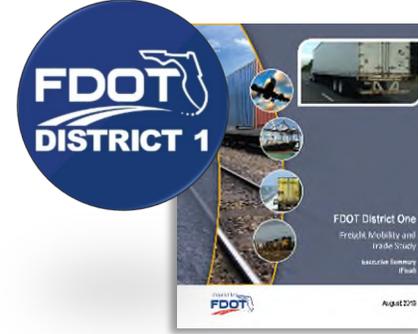


Approximately 36 miles of I-4 in the northern part of the District



Approximately 7.5 miles of I-275 in the western part of the District

Evolution of the Florida Freight Mobility and Trade Plan



2012

Florida's House Bill 599 directing FDOT to develop the FMTF to assist in making freight mobility investments that contribute to the economic growth of the state.

The federal reauthorization bill **Moving Ahead for Progress in the 21st Century Act (MAP-21)** encouraged each State to develop a freight plan to fulfill federal requirements. With a state freight plan, freight projects could better qualify for more federal funds.

2013

Underscored and affirmed by MAP-21's new freight policies, FDOT, in coordination with partners and stakeholders, began to create the first FMTF. The plan was developed in two parts, the first of which was the **Policy Element**, completed in 2013.

The Policy Element addressed the four statutory goals laid out in HB 599 and established seven multi-functional objectives and corresponding strategies to incorporate commerce and energy with transportation.

2014

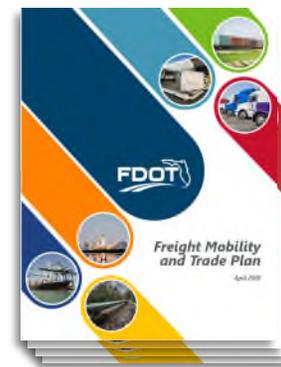
Part two of the FMTF (i.e., the **Investment Element**), was completed in 2014. It identified Florida's freight network, summarized Florida's freight needs, and selected/prioritized investments to improve Florida's freight movement.

Together, the Policy and Investment Elements of the FMTF helped Florida address the requirements of MAP-21, as freight projects must be identified in a state plan to qualify for an increased federal funding share.

2015

FDOT D1 completed the **Freight Mobility and Trade Study (FMTS)**, which defined a regional freight transportation network, identified investment priorities, and provided input to the FMTF Investment Element. The study has five technical memos covering a literature review, data collection, identification of freight activity centers (FACs) and freight mobility corridors (FMCs), identification of improvement needs, and prioritization of short and long-term projects.

The federal reauthorization bill **Fixing America's Surface Transportation (FAST) Act** built upon 2012's MAP-21 national freight policy and goals. It began implementation by creating a **National Multimodal Freight Network (NMFN)** and by dedicating freight funding through the **National Highway Freight Program (NHFP)**. The FAST Act required states to complete a state freight plan in order to receive designated freight funding.



2016

D1 completed its first **FMTP**, which was developed using the findings of the 2015 FMTP. The 2016 D1 FMTP precedes this document and served as a guide to improve freight mobility and support logistics growth in the region. It includes information on land uses, transportation systems, and freight investment priorities. It also provides objectives, strategies, and action items to enhance the efficiency of freight mobility and includes a user's resource guide.

2017

FDOT established the **Freight and Multimodal Operations (FMO) Office**. The FMO Office is now responsible for the development, implementation, and management of the FMTP. In 2017, the FMO created an **FMTP Addendum** to the FMTP to meet the criteria set by the Fast Act. As a result, the FMTP became even more effective toward promoting economic growth and enhancing the link between freight transportation infrastructure and Florida's economic vitality.

2019

FDOT began updating the FMTP. The **FMTP update process** involved extensive public outreach and input from various stakeholders across the state through workshops, surveys, and public meetings to gather input on the needs and challenges facing Florida's freight transportation system. This collaborative process helped to ensure that the updated FMTP would be well-informed and reflective of the needs of the diverse communities and industries that rely on the state's transportation infrastructure.

2020

FDOT completed the **FMTP update** which included more recent data and analysis, reflected changes in policies, regulations, and guidelines, and expanded upon the multimodal and intermodal aspects of the plan. The updated plan also included new sections covering emerging trends in freight transportation, such as e-commerce and autonomous vehicles, and highlighted initiatives to improve the resiliency and sustainability of the state's freight transportation system.

2021 - 2023

The BIL was signed into law by President Biden in December 2021. The BIL continues the requirement of a freight plan to receive federal funding for freight related transportation projects.

D1 began updating its 2016 FMTP in 2021, with a final completion in 2023. The new D1 FMTP will guide the district with ideas that inform the statewide FMTP and develop improvement recommendations.

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Overview

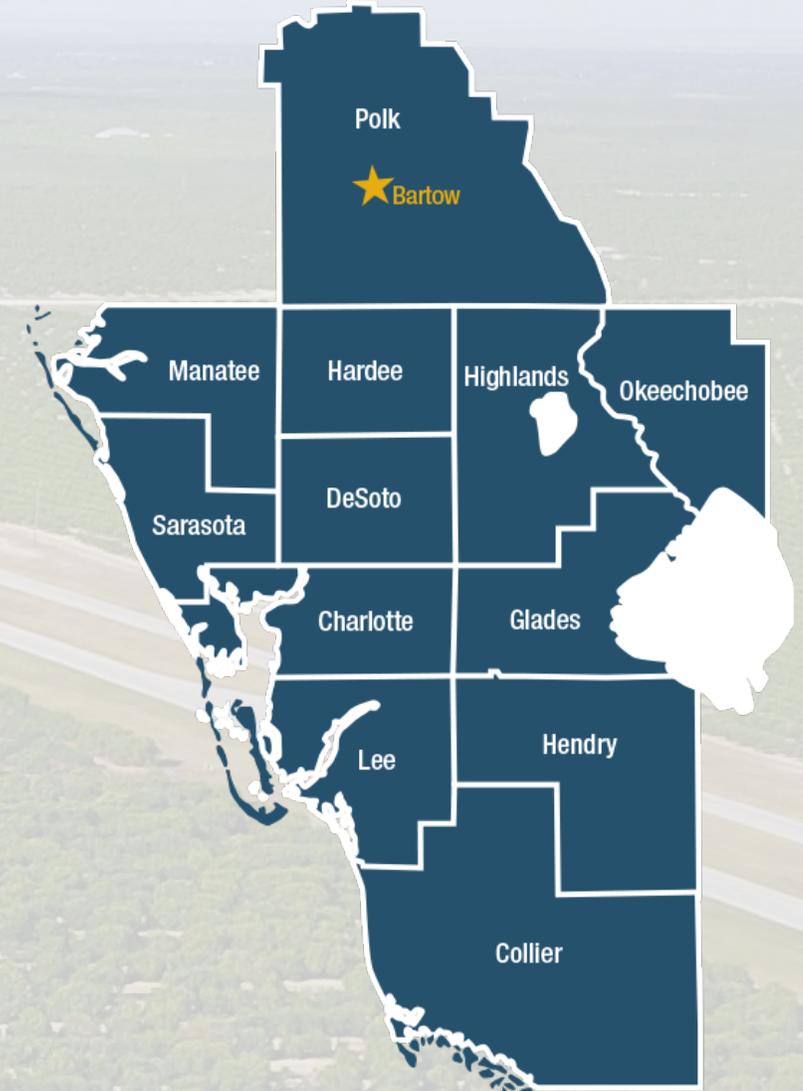
D1 is one of seven districts within FDOT and is in the southwestern portion of the state. It encompasses a 12-county region that includes Charlotte, Collier, DeSoto, Glades, Hardee, Hendry, Highlands, Lee, Manatee, Okeechobee, Polk, and Sarasota counties. The District's headquarters is in Bartow, Florida, with additional offices in Fort Myers, Bradenton, Labelle, Arcadia, and Sebring. The District is responsible for the planning, design, construction, operation, and maintenance of the state transportation system within its boundaries, including highways, bridges, and airports. It also manages the state's transportation planning process and oversees the implementation of transportation plans and projects in the District.

As part of its responsibilities, D1 oversees the movement of freight throughout the region. This includes planning, developing, and maintaining a multimodal transportation system that supports the efficient movement of goods by all modes of transportation, including highways, rail, waterways, and air cargo.

The District works to identify freight transportation needs and prioritize projects that support economic growth and competitiveness, such as improving access to ports, intermodal facilities, and other key freight hubs. Additionally, D1 collaborates with stakeholders, including shippers, carriers, logistics providers, and local governments, to ensure that freight transportation needs are adequately addressed.

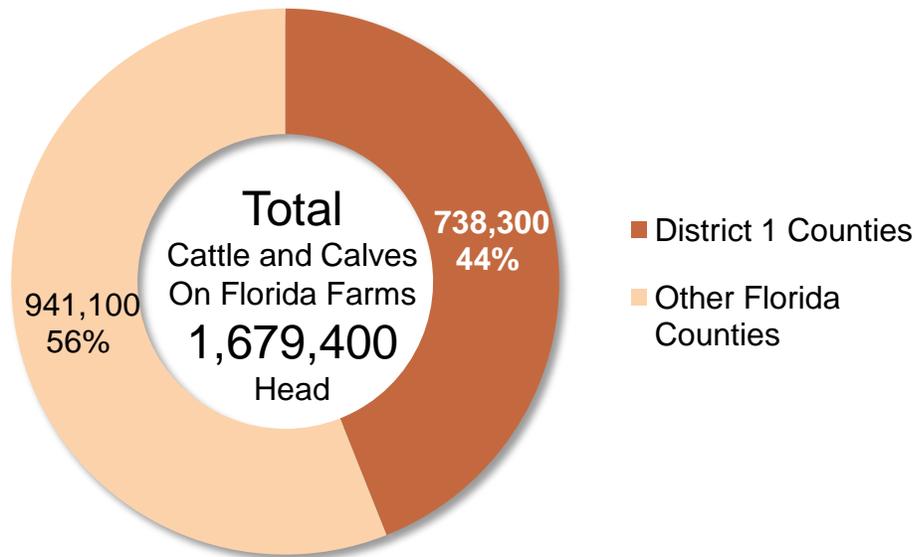
D1 also supports freight-related research and technology initiatives to improve transportation system efficiency, safety, and sustainability. Overall, D1 plays a critical role in promoting a vibrant and competitive freight transportation system that supports economic growth and prosperity in the region.

This chapter provides an overview of D1's key freight-related attributes that are critical to understanding the region's freight transportation system. Topics covered include **Land Use, Strategic Intermodal System, Airports/Seaports, Freight Activity and Intermodal Logistic Centers, Freight Mobility Corridors, Railroads, SunTrax, and Stakeholder Engagement.**



Cattle and Calves

According to the Florida Beef Council, Florida has roughly 15,000 beef producers. Florida is a cow-calf state, with weaned calves shipped to stockers or feedlots. The State ships approximately 450,000 calves each year.



- D1 contains seven of the top ten counties in Florida for the number of head of cattle
- 46 percent of all D1 agricultural land is involved in cattle production.

According to the 2017 Census of Agriculture, D1 has the following characteristics with respect to the market value of cattle and calves sold:

- DeSoto county has the highest market value of cattle and calves sold among all D1 counties with \$31,596,000, followed by Highlands, Hardee, Hendry, and Polk counties.
- The total market value of cattle and calves sold in Florida was \$521,847,000.
- Okeechobee county has withheld its data, so no information is available about its market value of agricultural products sold.
- Lee and Charlotte counties have the lowest market value of agricultural products sold among all D1 counties, with \$3,196,000 and \$3,297,000, respectively.

Top Ten Counties By Beef Cattle Inventory

County	FDOT District	Head of Cattle
Okeechobee	District 1	175,000
Highlands	District 1	120,000
Osceola	District 5	96,000
Polk	District 1	91,000
Hardee	District 1	69,000
Glades	District 1	65,000
DeSoto	District 1	63,000
Hendry	District 1	61,000
Suwannee	District 2	52,000
Marion	District 5	48,000

Source: USDA, NASS, Cattle 2020-0221





Florida's Citrus Impact

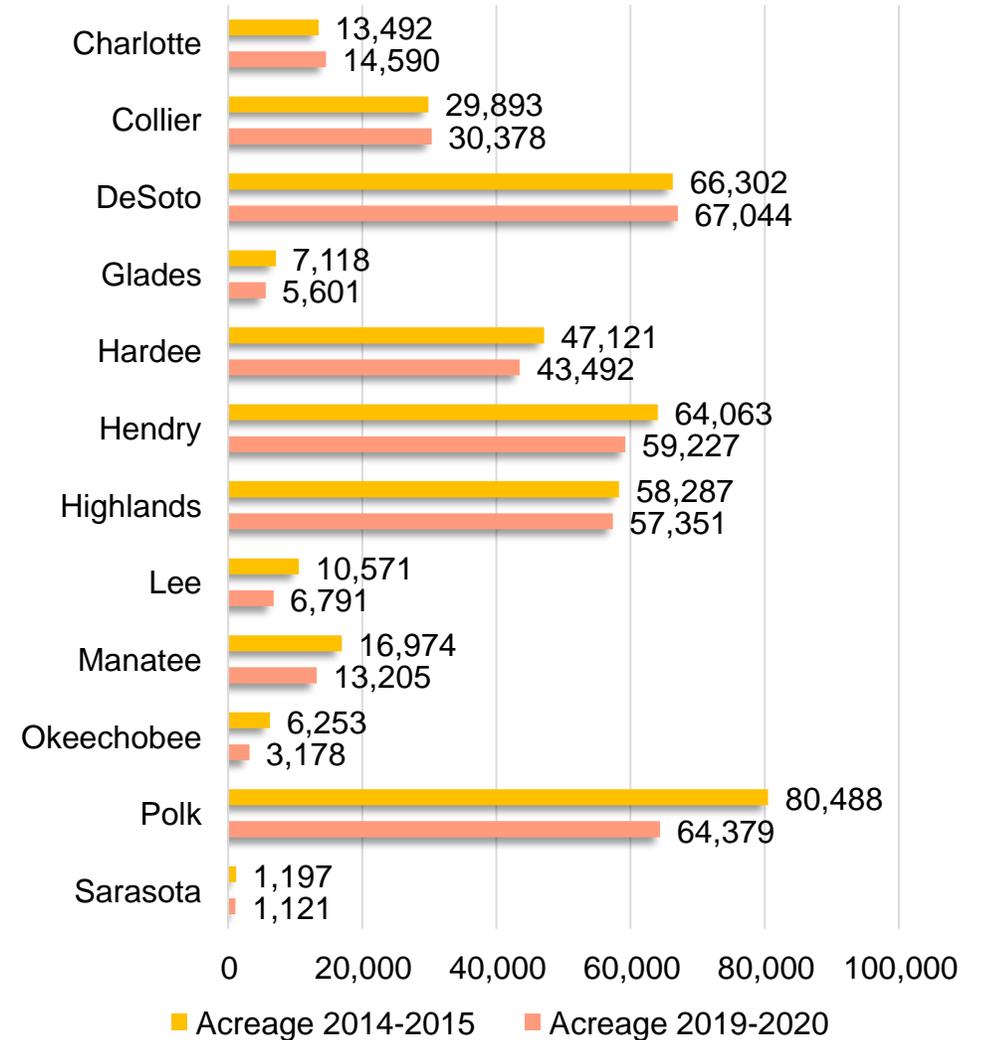
- In 2019-2020, Florida produced 73.2 million boxes of citrus, accounting for 42% of the total U.S. citrus production. Annual reporting between 2015-2021 reveals that Florida's citrus industry has been experiencing declines in production and acreage.
- Oranges constitute the largest share of citrus production in Florida, followed by grapefruit, tangerines, and tangelos.



Citrus Acreage in District 1

Recent data (below) shows the changes in acreage for different counties in D1 between 2014-2015 and 2019-2020. The net change and percent change in acreage are also provided for each county as well as for the total of all counties.

- The total acreage change for all counties represented an 8.81% decrease (-35,402 acres), suggesting a trend towards reduced citrus farmland.
- The county with the largest net increase in acreage was Charlotte, which increased by 8.14% (i.e., 1,098 acres).
- The county with the largest percentage decrease in acreage was Okeechobee, which decreased by 49.18%.
- These changes in land use could have implications for transportation infrastructure, environmental conservation efforts, and regional economic development.



County	Charlotte	Collier	DeSoto	Glades	Hardee	Hendry	Highlands	Lee	Manatee	Okeechobee	Polk	Sarasota	Total
Acreage 2014-2015	13,492	29,893	66,302	7,118	47,121	64,063	58,287	10,571	16,974	6,253	80,488	1,197	401,759
Acreage 2019-2020	14,590	30,378	67,044	5,601	43,492	59,227	57,351	6,791	13,205	3,178	64,379	1,121	366,357
Net Change	1,098	485	742	-1,517	-3,629	-4,836	-936	-3,780	-3,769	-3,075	-16,109	-76	-35,402
% Change	8.14%	1.62%	1.12%	-21.31%	-7.70%	-7.55%	-1.61%	-35.76%	-22.20%	-49.18%	-20.01%	-6.35%	-8.81%

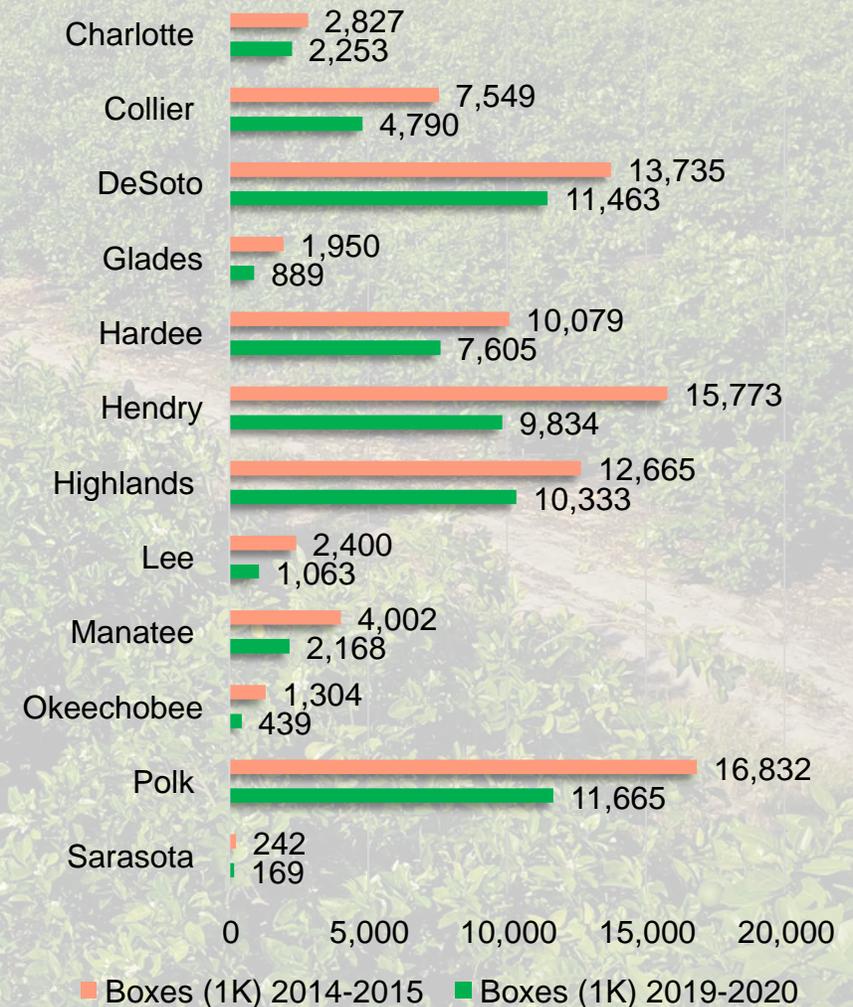
Source: Florida Citrus Statistics (2019-2020), Florida Department of Agriculture and Consumer Services



Citrus Production

- During the 2019-2020 growing season, D1 produced nearly 86% of all citrus produced in Florida.
- Transporting citrus requires efficiency and timeliness to ensure freshness.
- The citrus harvesting season is generally from October to June.
- Once harvested, citrus fruits are packaged using net bags, corrugated board crates, wooden crates, standard boxes, half boxes, and wire-bound boxes. Those packages are commonly added to crates before being loaded onto the truck ahead of the next journey.
 - The total number of citrus boxes* that were produced decreased by 26,687 between 2014-2015 and 2019-2020.
 - The top five counties for 1,000 boxes produced in 2014-2015 were Polk, Hendry, DeSoto, Highlands, and Hardee. The order changed in 2019-2020 to Polk, DeSoto, Highlands, Hendry, and Hardee.
 - Most counties saw a drop in both boxes produced and productive acres, but Charlotte, Collier, and DeSoto experienced a decrease in boxes and an increase in acres.

*Florida Citrus Box Weights – Oranges (90 lbs), Grapefruit (85 lbs), Tangerines (95 lbs), Lemons (90 lbs), Limes (88 lbs).



Boxes (1,000)	Charlotte	Collier	DeSoto	Glades	Hardee	Hendry	Highlands	Lee	Manatee	Okeechobee	Polk	Sarasota	Total
2014-2015	2,827	7,549	13,735	1,950	10,079	15,773	12,665	2,400	4,002	1,304	16,832	242	89,358
2019-2020	2,253	4,790	11,463	889	7,605	9,834	10,333	1,063	2,168	439	11,665	169	62,671
Net Change	-574	-2,759	-2,272	-1,061	-2,474	-5,939	-2,332	-1,337	-1,834	-865	-5,167	-73	-26,687
% Change	-20.30%	-36.55%	-16.54%	-54.41%	-24.55%	-37.65%	-18.41%	-55.71%	-45.83%	-66.33%	-30.70%	-30.17%	-29.87%

Source: Florida Citrus Statistics (2019-2020), Florida Department of Agriculture and Consumer Services



Fruits and Vegetables

- According to the 2017 Census of Agriculture data, agricultural production in FDOT D1 is a prominent venture within all counties.
- Manatee County is the largest producer of vegetables and tomatoes in the District, with 40,468 and 14,066 acres dedicated to vegetable and tomato farming, respectively.
- After sugar and citrus, vegetables are the most grown crop in the District, with every county having at least some portion of their agricultural land dedicated to vegetable farming.
- Hendry County has the second largest acreage dedicated to vegetable crops in D1 with 12,329 acres. Hendry County also maintains approximately 4,507 acres for snap beans as well.
- Other crops grown in the District include acreages for watermelons, bell peppers, and tomatoes.
- There is some diversity in crop production among the different counties, with each county having its own acreages dedicated to specialty crops.

County	#1 Crop	#1 Crop in Acres	#2 Crop	#2 Crop in Acres	#3 Crop	#3 Crop in Acres	#4 Crop	#4 Crop in Acres	#5 Crop	#5 Crop in Acres
Charlotte	Oranges	9,011	Vegetables	1,935	Watermelons	917	Corn for silage or greenchop	(D)	Potatoes	(D)
Collier	Oranges	29,133	Vegetables	10,367	Tomatoes	(D)	Bell Peppers	994	Potatoes	(D)
DeSoto	Oranges	50,525	Forage	9,286	Sod	3,315	Vegetables	1,646	Watermelons	1,092
Glades	Sugarcane	19,268	Oranges	6,070	Forage	4,091	Vegetables	(D)	Sod	700
Hardee	Oranges	39,537	Forage	9,217	Vegetables	1,680	Watermelons	1,085	Grapefruit	984
Hendry	Sugarcane	73,022	Oranges	68,588	Vegetables	12,329	Snap Beans	4,507	Sweet corn	(D)
Highlands	Oranges	43,403	Sugarcane	6,314	Forage	6,083	Sod	(D)	Vegetables	2,213
Lee	Vegetables	7,014	Oranges	4,260	Potatoes	(D)	Forage	2,636	Tomatoes	(D)
Manatee	Vegetables	40,468	Cucumbers and pickles	(D)	Tomatoes	14,066	Oranges	11,566	Forage	4,292
Okeechobee	Forage	15,491	Sod	4,650	Oranges	4,105	Vegetables	1,964	Corn for silage or greenchop	1,224
Polk	Oranges	69,410	Forage	16,462	Sod	4,071	Tangerines	2,298	Grapefruit	2,226
Sarasota	Forage	4,320	Sod	1,342	Oranges	465	Vegetables	(D)	Tomatoes	(D)
Florida	Forage	422,551	Oranges	422,421	Sugarcane	386,428	Vegetables	245,375	Peanuts for nuts	186,803

(D) Withheld to avoid disclosing data for individual operations.

Source: 2017 Census of Agriculture, County Profiles



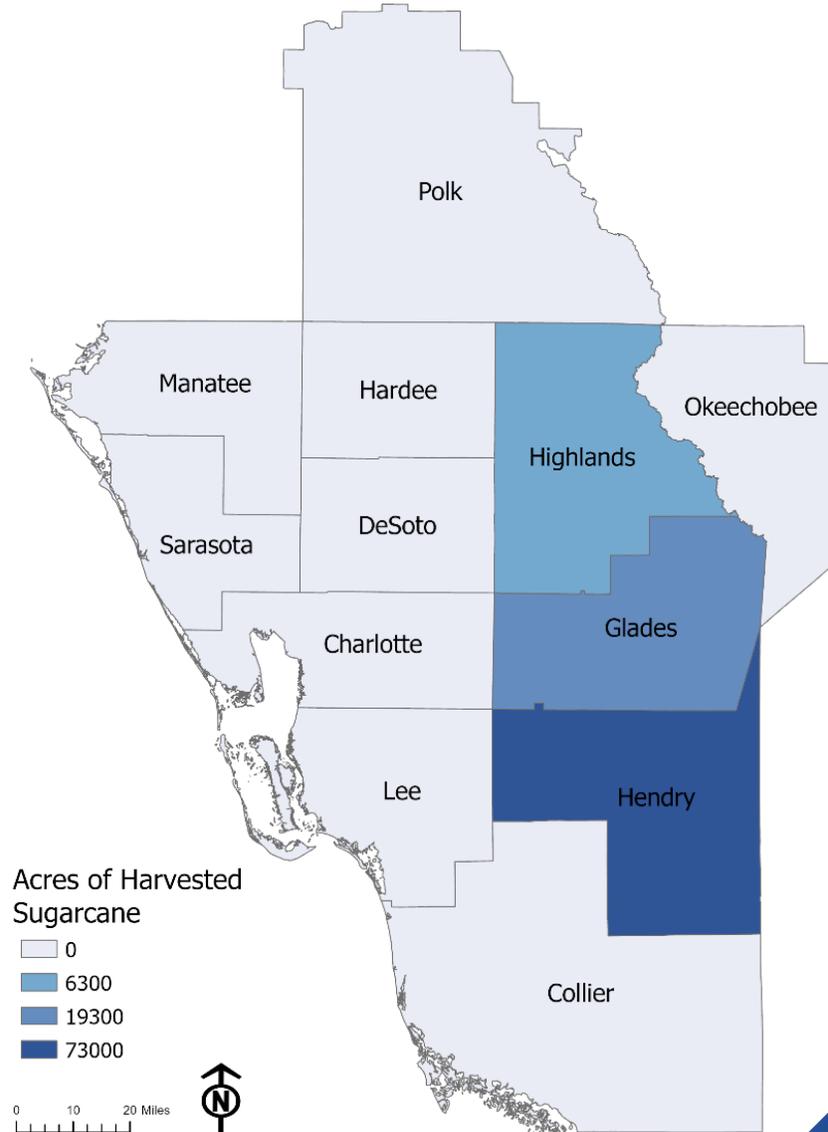
Florida is the largest producer of sugarcane in the US, with around 30% of all sugar production in the country occurring in D1. All phases of sugar production, including harvesting, refining, milling, and distributing, happen within D1, with sugar production taking place in three counties. Clewiston, FL, in Hendry County, is home to the largest sugar refinery in Florida.

Sugarcane is harvested from late fall to early spring and processed within 24 hours to ensure freshness and quality. The sugarcane is transported to sugar mills throughout D1 for processing, where the juice is extracted, clarified and purified, and then crystallized. The refined sugar is then transported to the Clewiston refinery or other distribution centers within D1 for packaging and distribution. The sugar industry is an important employer in local communities and contributes to the economy of D1.

Sugarcane Harvested in D1 (2017)			
County	Total Farms	Total Acres Harvested	Total Production (Tons)
Charlotte	0	0	0
Collier	0	0	0
DeSoto	0	0	0
Glades	17	19,268	724,125
Hardee	0	0	0
Hendry	15	73,022	2,758,384
Highlands	4	6,314	252,574
Lee	0	0	0
Manatee	0	0	0
Okeechobee	0	0	0
Polk	0	0	0
Sarasota	0	0	0
Total	36	98,604	3,735,083

Source: USDA NASS Quick Stats Tool (2017)

Top Sugar Producing Counties





Mineral Mining

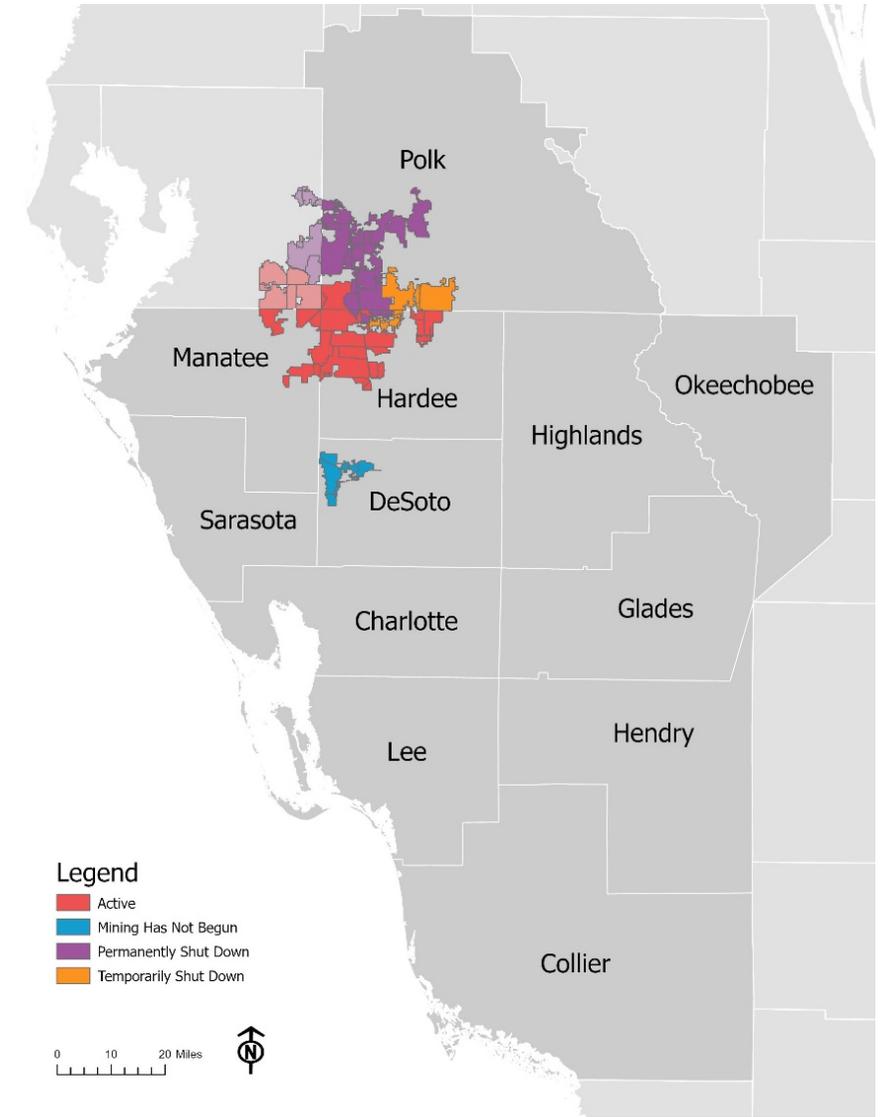
Phosphate mining is a thriving industry in Florida, particularly in D1, where most of the activity occurs in Polk, Manatee, Hardee and DeSoto Counties. Phosphate, a vital ingredient in fertilizers, is extensively mined in Florida, supplying over 75% of the phosphate used in the US.

Aside from phosphate, other minerals such as limestone, dolomite, shell, heavy minerals, fuller's earth, peat, clay, gravel, and sand are also extracted in Florida, serving a variety of purposes, from construction to industrial processes.

Mining operations have a noticeable effect on land use in Florida. The mining process involves clearing land, digging, and excavation, leading to changes in topography, loss of vegetation, and disruption of local ecosystems. Nevertheless, many mining companies in Florida are obligated to reclaim the land after the mining operation ends, which involves bringing the land back to a state similar to its original condition.

Transportation is an essential aspect of the Florida mining industry, as minerals must be transported to and from mining sites. The transportation of phosphate and other minerals is mainly done via truck or rail, with rail transportation being particularly significant in Florida due to its extensive rail network. The transportation of minerals and other materials significantly impacts Florida's freight industry, playing a crucial role in the state's economy.

Phosphate Mining Operations





Manufacturing

The manufacturing industry plays an important role in the economy of D1, employing around 5% of the total workforce. There are 1,812 manufacturing companies located in the District, which includes a wide range of industries such as food processing, plastics, electronics, and machinery. The average hourly wage for a manufacturing employee in D1 was \$26.71 in 2019, which is higher than the average wage for all industries in the District.

Manufacturing companies in D1 often set up near major transportation corridors, such as I-4 and I-75, to facilitate the movement of raw materials and finished goods. The manufacturing sector generates employment opportunities and supports related industries such as transportation, warehousing, retail, and business services. According to the US Census Bureau, the establishment of ten jobs in Florida's export-oriented manufacturing industry leads to the creation of an additional 12 jobs in transportation/warehousing/retail and eight jobs in business services.

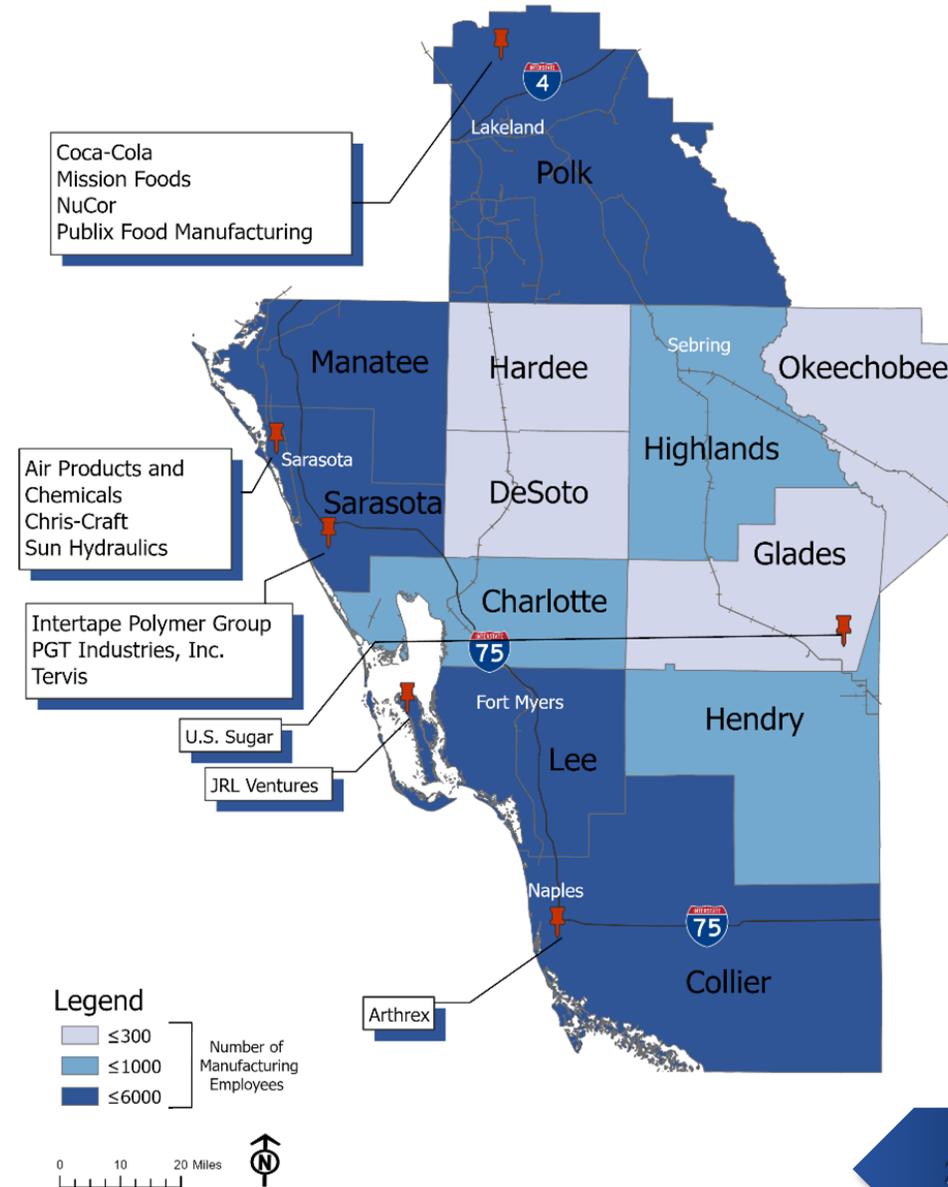


From batteries and boats to semiconductors and satellites, Florida's manufacturing industry produces a wide variety of goods each year. Ranked among the nation's top 10 states for manufacturing, Florida is home to over 20,200 manufacturing companies that employ more than 371,000 workers. Manufacturing powerhouses — such as Jabil, Siemens and Nucor — choose Florida for its pro-business policies, strong workforce and access to domestic and global markets.

Enterprise Florida, 2021



Manufacturing Companies and Employees





Warehouse, Distribution and Third-Party Logistics

Third-party logistics (3PL) providers specialize in integrated operations of warehousing and transportation services that can be customized to meet the unique needs of different businesses. The Central Florida market, including Polk County, is one of the hottest industrial markets in the country. Despite the rapid growth in demand for industrial space, the market is not overbuilt, and warehouses are being leased as soon as they are built. The high demand for industrial space in Polk County and Central Florida has increased employment opportunities, as warehouses and distribution centers require a large workforce to handle their operations.



Warehouses are typically locations where businesses store their products. About 143.30 Million Square Feet are dedicated to warehousing and distribution centers.

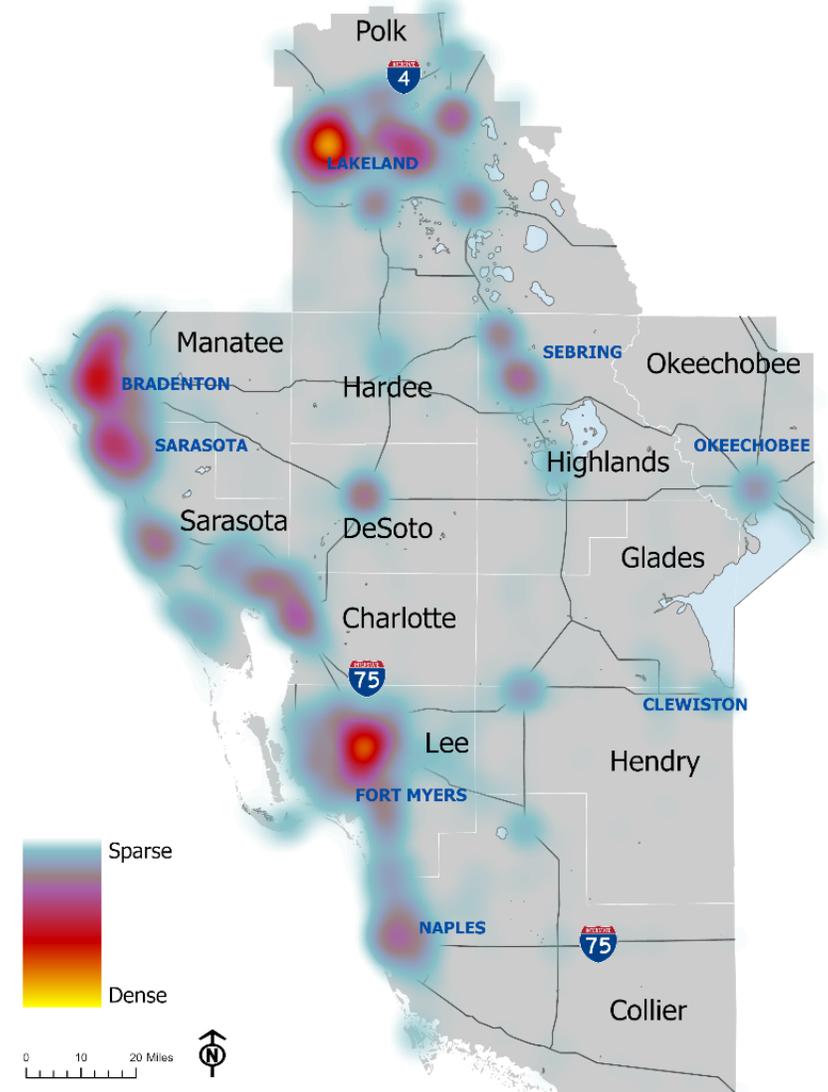


Distribution centers store products, but also offer packaging, order fulfillment, and distribution.



Third-party logistics (3PL) providers typically specialize in integrated operations of warehousing and transportation services that can be customized.

Warehouses, Distribution Centers, & 3PLs Clusters



Good Things Happening in District 1

- Amazon opened a 283,000 square foot (sf) air cargo facility at Lakeland Linder Airport and is currently planning an expansion. The company also built another 1 million sf facility in Auburndale.
- Coca-Cola Beverages Florida is potentially planning to lease a 407,000 sq ft warehouse at the Winter Haven Central Florida ILC.
- Industrial development in the East Lakeland Industrial Park.
- A company purchased the former Lakeland Drag Strip on SR-33 for \$3.3M in August 2018 and plans to build a 700,000 sq ft logistics center on the site.
- On SR-33, Xebec is building a nearly \$40M spec warehouse on a 60-acre site just north of I-4. The California-based real-estate firm plans to build a 533,000 sq ft spec logistics center.
- Prologis has plans to build a 1.1 million sf facility in Auburndale.
- A firm purchased a 605,000 sq ft distribution center in the Center State Logistics Center in Lakeland.
- Winter Haven/FDOT is planning for a 1.8-mile extension of Pollard Road with a bridge over Peace Creek so that the Winter Haven ILC would be accessible, estimated construction let date in 2024.
- A development company is planning up to 1.35 million square feet of distribution space in Lakeland on the former Bridge Water golf course.
- IKEA opened a 326,000 square foot distribution center in Lakeland and is housed in a leased space off Allen K. Breed Highway.
- Medline built an 830,000 square foot distribution center within the Polk Commerce Centre in Auburndale.
- Saddle Creek built Phase Two of its distribution center in Auburndale, adding 343,200 square feet to the recently completed 468,000 Phase One development.
- Walmart opened a two-building e-commerce fulfillment center in Davenport (2017), the first in Florida. Built on 50 acres at U.S. 27 and I-4, the 2.2 million square foot center is about the size of 20 football fields.



With a large supply of vacant land left in Polk County, especially in priority locations near the I-4 corridor, investors will continue to develop distribution centers and warehouses (whether on spec or building to suit).

Summary | Land Use Related Freight Data

Top 5 Freight Related Land Use Categories by County

Land Use (Sq. Feet)	Charlotte	Collier	DeSoto	Glades	Hardee	Hendry	Highlands	Lee	Manatee	Okeechobee	Polk	Sarasota
Warehouse & Distribution Centers	5,634,640	8,637,840	1,986,320	44,480	188,870	725,120	2,311,680	33,648,576	17,173,800	763,100	55,715,310	16,489,380
Light Manufacturing	180,120	3,823,560	400,400	250,880	183,370	405,120	1,099,560	3,998,672	6,717,240	233,480	17,254,440	5,313,600
Canneries, Bottlers/Brewers, Distilleries, & Wineries	-	-	-	-	-	-	-	-	-	-	4,365,270	-
Fruit, Vegetable, & Meat Packing Plants	-	1,112,840	246,680	-	150,260	269,760	-	-	755,760	-	1,920,030	-
Mining Lands, Petroleum Lands, & Gas Lands	-	-	-	-	-	-	-	-	-	-	1,911,420	-
Airports, Bus Terminals, & Marine Terminals	956,080	751,640	-	-	-	-	-	1,024,556	-	-	-	892,980
Utilities	352,640	-	37,520	50,000	125,620	-	131,880	958,188	335,580	-	-	814,260
Lumber Yards, Sawmills, & Planning Mills	-	-	-	-	-	-	-	-	-	-	-	506,760
Heavy Industrial	-	-	92,680	35,440	176,330	-	-	-	2,236,260	116,740	-	-
Open Storage	136,800	-	-	-	-	-	127,680	-	-	128,440	-	-
Minerals Processing & Construction Material Plants	-	-	-	-	-	51,840	181,020	-	-	-	-	-
Dairies & Feed Lots	-	-	-	367,840	-	-	-	601,460	-	896,480	-	-
Other Food Processing	-	-	-	-	-	1,647,360	-	-	-	-	-	-
Wholesale Outlets, Produce Houses, & Manufacturing Outlets	-	846,240	-	-	-	-	-	-	-	-	-	-
Top 5 Land Uses Total Sq. Feet	7,260,280	15,172,120	2,763,600	748,640	824,450	3,099,200	3,851,820	40,231,452	27,218,640	2,138,240	81,166,470	24,016,980

Source: FDOT Freight and Logistics Overview (2021), Transearch database (2018)

A "-" does not equate to zero as only the Top 5 categories are reported for each County

Imports and Exports Data

D1 IMPORTS

County Name	Top Import Commodity	Tonnage (1,000)	% of Florida Tonnage	Value (\$Billions)	% of Florida Value
Charlotte	Clay, Concrete, Glass, Stone	1,207.00	0.85%	\$2.05	0.64%
Collier	Furniture or Fixtures	3,890.80	2.74%	\$8.15	2.54%
DeSoto	Waste or Scrap Metals	2,328.80	1.64%	\$5.36	1.67%
Glades	Nonmetallic Minerals	227.20	0.16%	\$0.45	0.14%
Hardee	Nonmetallic Minerals	497.00	0.35%	\$0.74	0.23%
Hendry	Clay, Concrete, Glass, Stone	965.60	0.68%	\$1.48	0.46%
Highlands	Clay, Concrete, Glass, Stone	639.00	0.45%	\$1.09	0.34%
Lee	Fabricated Metal Products	5,538.00	3.90%	\$12.07	3.76%
Manatee	Pulp, Paper, or Allied Products	5,254.00	3.70%	\$10.72	3.34%
Okeechobee	Waste or Scrap Metals	14,455.60	10.18%	\$32.61	10.16%
Polk	Misc. Mixed Shipments	14,271.00	10.05%	\$37.69	11.74%
Sarasota	Primary Metal Products	5,225.60	3.68%	\$8.57	2.67%

D1 EXPORTS

County Name	Top Export Commodity	Tonnage (1,000)	% of Florida Tonnage	Value (\$Billions)	% of Florida Value
Charlotte	Nonmetallic Minerals	718.20	1.26%	\$1.26	0.70%
Collier	Instruments, Photo, & Optical Equipment	7,022.40	12.32%	\$14.49	8.05%
DeSoto	Farm Products	1,430.70	2.51%	\$3.26	1.81%
Glades	Farm Products	4,400.40	7.72%	\$6.89	3.83%
Hardee	Farm Products	1,647.30	2.89%	\$4.14	2.30%
Hendry	Farm Products	12,158.10	21.33%	\$17.91	9.95%
Highlands	Farm Products	1,578.90	2.77%	\$3.58	1.99%
Lee	Nonmetallic Minerals	6,150.30	10.79%	\$10.55	5.86%
Manatee	Farm Products	3,454.20	6.06%	\$5.69	3.16%
Okeechobee	Farm Products	2,126.10	3.73%	\$4.73	2.63%
Polk	Chemicals or Allied Products	17,989.20	31.56%	\$33.59	18.66%
Sarasota	Rubber or Misc. Plastics	7,050.90	12.37%	\$16.67	9.26%

Source: FDOT Freight and Logistics Overview (2021), Transearch database (2018)

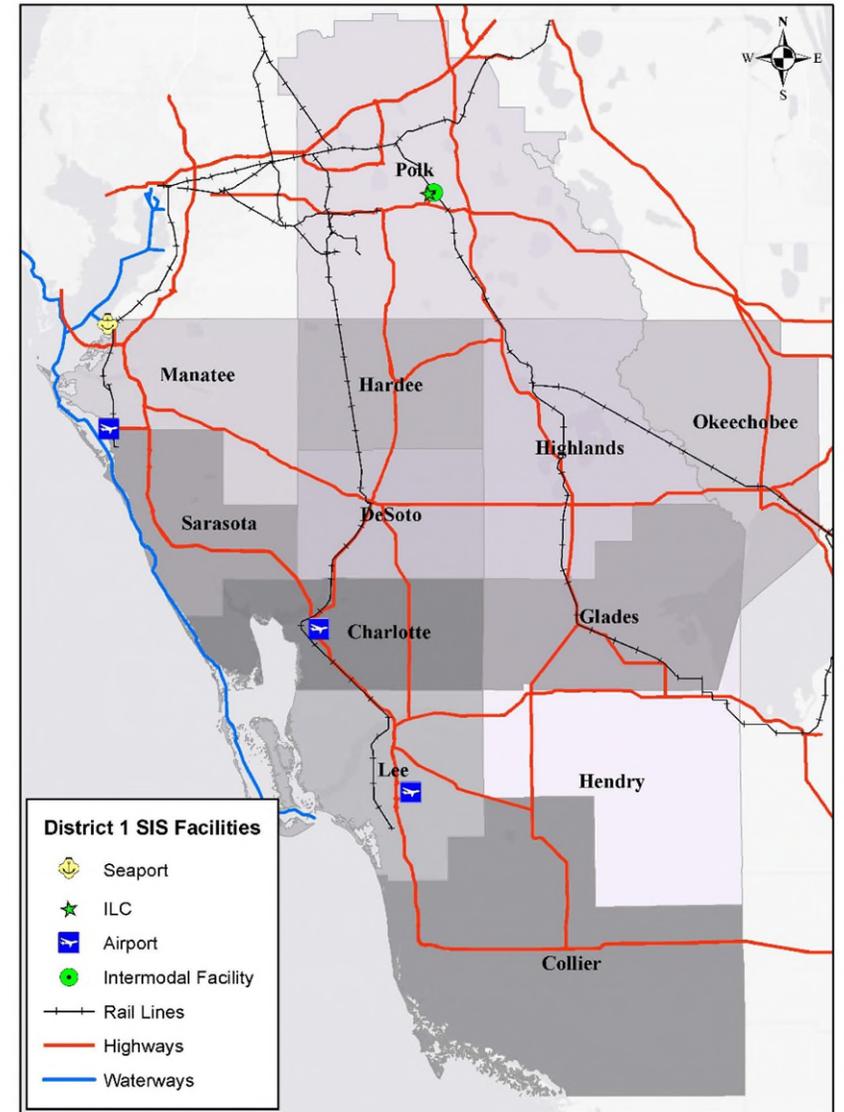


The Strategic Intermodal System (SIS) is a network of transportation facilities that make up the backbone for Florida's economy, connecting key markets, airports, seaports, rail terminals, and other transportation centers across the state. In D1, the SIS includes several major highways, rail lines, airports, and seaports that are designated as "strategic" due to their importance for the movement of goods and people.

The SIS is critical for efficient transportation and movement of goods throughout FDOT D1. This system includes:

- **SIS Highway Corridors, SIS Highway Connectors, and Strategic Growth Highway Connectors:** 897 miles: I-75, I-275, US-17, US-27, US-441, SR-60, SR-570, SR-70, SR-64, SR-80, and SR-29. SIS highways provide access to ports, airports, and military installations throughout the district and the state, ensuring the efficient movement of freight, personnel, equipment, and supplies;
- **SIS, Strategic Growth, and Connector Railroads:** 406 miles;
- **SIS and Strategic Growth Airports:** Southwest Florida International Airport, Sarasota/Bradenton International Airport, and Punta Gorda Airport; and
- **SIS Seaport:** SeaPort Manatee. The port moves a variety of cargo, serving a diverse statewide consumer market and playing a critical role in international trade.

The SIS designation process involves identifying statewide and interregional facilities of significance that can be included as part of the SIS network. The criteria for designation have been revised over the years, with the most recent revision in 2018. The current structure designates four types of facilities: **Hubs**, **Corridors**, **Intermodal Connectors**, and **Military Access Facilities (MAF)**. **Hubs** include airports, seaports, spaceports, passenger terminals, and rail terminals. **Corridors** refer to highways, rail lines, waterways, and other exclusive-use facilities connecting major markets within the state or between Florida and other states and countries. **Intermodal Connectors** are highways, rail lines, waterways, or local public transit systems serving as connectors between hubs and corridors or between hubs and other hubs. Finally, **MAF** refers to highways or rail lines linking SIS corridors to the state's strategic military installations.







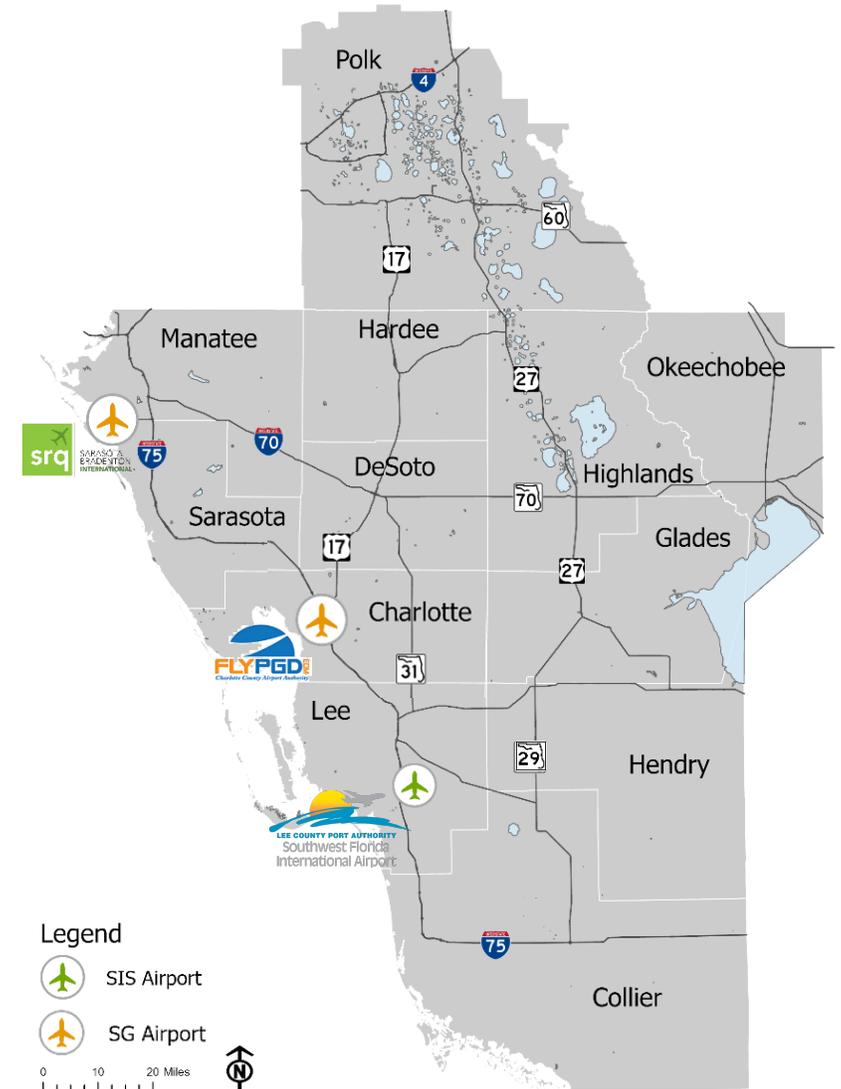
SIS Airports and Strategic Growth Airports

Southwest Florida International Airport (RSW) is a major airport located in Fort Myers and is served by Air Canada, Alaska, American, Avelo, Breeze Airways, Delta, Eurowings Discover, Frontier, JetBlue, Southwest, Spirit, Sun Country, United, and WestJet. While the airport is primarily known for its passenger traffic, it also plays a critical role in the region's freight transportation system. RSW is the only SIS-designated airport within D1 (it handles the most air cargo), but it is complemented by two Strategic Growth Airports: **Sarasota-Bradenton International Airport (SRQ)** and **Punta Gorda Airport (PGD)**.

RSW has three air cargo facilities including an Air Cargo Terminal, Air Cargo Apron, and a Passenger Airline Cargo Facility. RSW accommodates six large aircrafts and the cargo carriers operating at RSW include Federal Express, UPS, and Airborne Express while belly cargo is handled by five commercial airlines. Passenger enplanements/deplanements do not relate one-to-one with air cargo, they positively correspond with the national economy. The Transportation Research Board states, "On a national basis, passenger demand for air service tracks changes in national economic output."

Southwest Florida International Airport (RSW)			
Year	Enplanements	Deplanements	Total
2017	4,461,304	4,381,245	8,842,549
2018	4,719,568	4,653,610	9,373,178
2019	5,144,467	5,080,713	10,225,180
2020	3,004,387	2,974,027	5,978,414
2021	5,188,170	5,134,264	10,322,434

Source: RSW, Passenger Enplanements (2022)



Sarasota-Bradenton International Airport (SRQ) is in Sarasota and Manatee Counties and serves as a gateway to the region's beaches and cultural attractions. In addition to commercial passenger service, SRQ also serves general aviation, corporate, and military purposes.

SRQ is served by several major airlines, including Delta, American, and United, and offers non-stop service to more than 50 destinations throughout the US and Canada. In addition to its passenger services, SRQ is an important hub for regional air cargo operations. The airport has more than 150,000 square feet of warehouse and office space dedicated to cargo operations, making it a key regional logistics and distribution center.

Punta Gorda Airport (PGD) is in Charlotte County and serves the Punta Gorda and Port Charlotte metropolitan areas. Currently Allegiant and Sun Country serve PGD offering non-stop service to more than 40 destinations throughout the US.

PGD has experienced significant growth in recent years, particularly in general aviation and air cargo. The airport has more than 80,000 square feet of warehouse and office space dedicated to cargo operations, making it an important regional logistics and distribution center. PGD's dedicated cargo terminal has become an important hub for e-commerce and logistics companies.

Both airports are critical economic drivers for their regions, supporting job growth and economic development. Additionally, they play a role in the movement of goods throughout D1. SRQ provides access to air cargo carriers such as FedEx and UPS.



Sarasota Bradenton International Airport (SRQ)			
Year	Enplanements	Deplanements	Total
2017	n/a	n/a	n/a
2018	688,090	683,798	1,371,888
2019	979,810	987,140	1,966,950
2020	616,798	620,188	1,236,986
2021	1,583,236	1,580,306	3,163,542

Source: SRQ, Airport Statistics (2022)



Punta Gorda Airport (PDG)			
Year	Enplanements	Deplanements	Total
2017	643,998	649,339	1,293,337
2018	786,911	790,253	1,577,164
2019	824,496	820,420	1,644,916
2020	596,715	592,966	1,189,681
2021	783,598	786,238	1,569,836

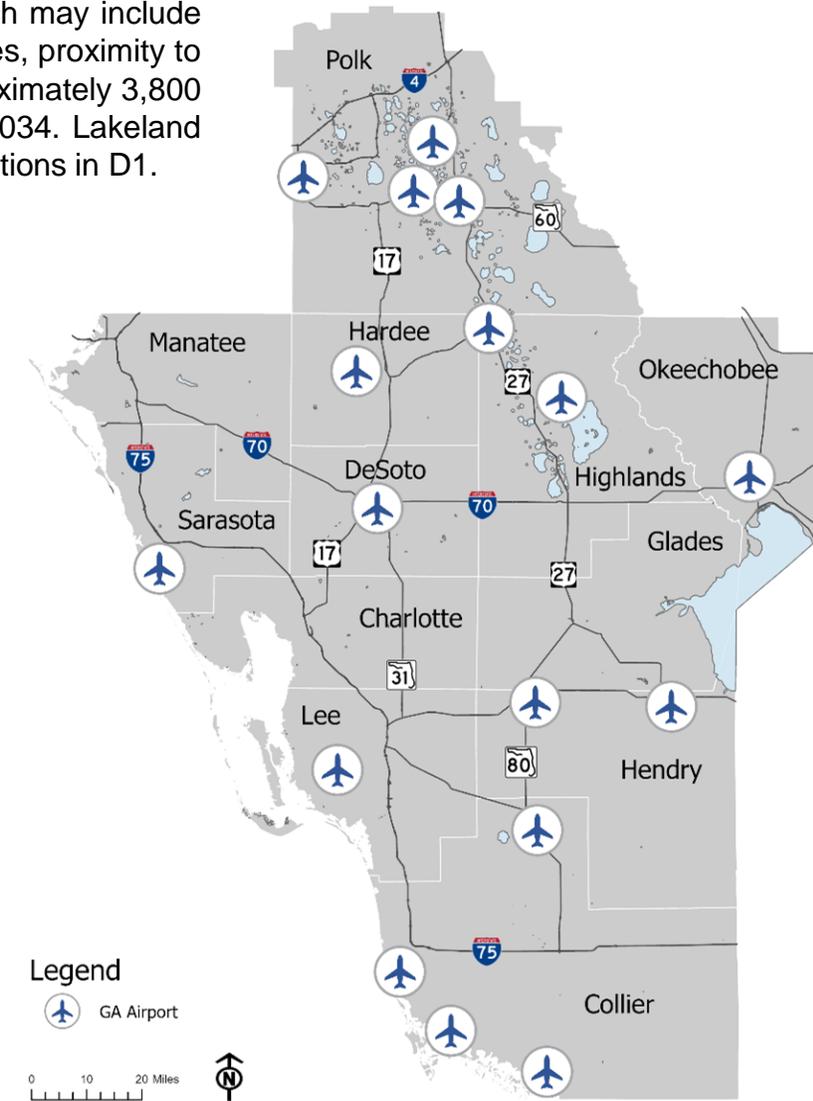
Source: PGD, Passenger Stats & Economics (2021)



General Aviation Airports (Non-SIS)

Outside of commercial passenger service, General Aviation (GA) airports provide all other air related services which may include the movement of goods in and out of Florida. GA airports tend to have less air and ground congestion, lower taxi times, proximity to local market areas, and less demanding ground support needs. In 2016, Florida GA air cargo carriers shipped approximately 3,800 tons of goods. GA air cargo operations are expected to grow at a rate 0.52 percent annually between 2014 and 2034. Lakeland Linder International is home to the only Amazon Air Regional hub in Florida which is a huge boost for air freight operations in D1.

ID	Name	City	County	Runways	Max Runway Length/Width (Feet)
2IS	Airglades	Clewiston	Hendry	2	5,950/75
X06	Arcadia Municipal	Arcadia	DeSoto	2	3,700/75
AVO	Avon Park Executive	Avon Park	Highlands	5	5,374/100
BOW	Bartow Municipal	Bartow	Polk	3	5,000/150
X01	Everglades Airpark	Everglades City	Collier	1	2,400/50
IMM	Immokalee Regional	Immokalee	Collier	2	5,000/150
X14	La Belle Municipal	La Belle	Hendry	1	5,254/75
X07	Lake Wales Municipal	Lake Wales	Polk	2	5,400/100
LAL	Lakeland Linder International	Lakeland	Polk	3	8,500/150
MKY	Marco Island Executive	Marco Island	Collier	1	5,000/100
APF	Naples Municipal	Naples	Collier	3	6,600/150
OBE	Okeechobee County	Okeechobee	Okeechobee	2	5,000/100
FMY	Page Field	Ft. Myers	Lee	2	6,406/150
SEF	Sebring Regional	Sebring	Highlands	2	5,234/100
VNC	Venice Municipal	Venice	Sarasota	2	5,640/150
CHN	Wauchula Municipal	Wauchula	Hardee	1	4,005/75
GIF	Winter Haven Regional	Winter Haven	Polk	2	5,005/100



Source: FAA, Airport Data and Information Portal (2021)

In September 2022, the U.S. Department of Transportation (USDOT) awarded SeaPort Manatee a nearly \$12 million Infrastructure for Rebuilding America (INFRA) grant award to expand container yard facilities by 16.56 acres. The funds will be used to design and construct additional cargo-handling space, a container yard access road, and electrical systems for two new mobile harbor cranes. The expansion project is expected to commence in 2023 and be completed in 2025, and is being augmented by state and local funds. SeaPort Manatee is a significant contributor to the economy of the Manatee County region, generating over \$5.1 billion in annual economic impacts and providing more than 37,000 direct and indirect jobs.



SEAPORT Manatee

The right turn on Tampa Bay

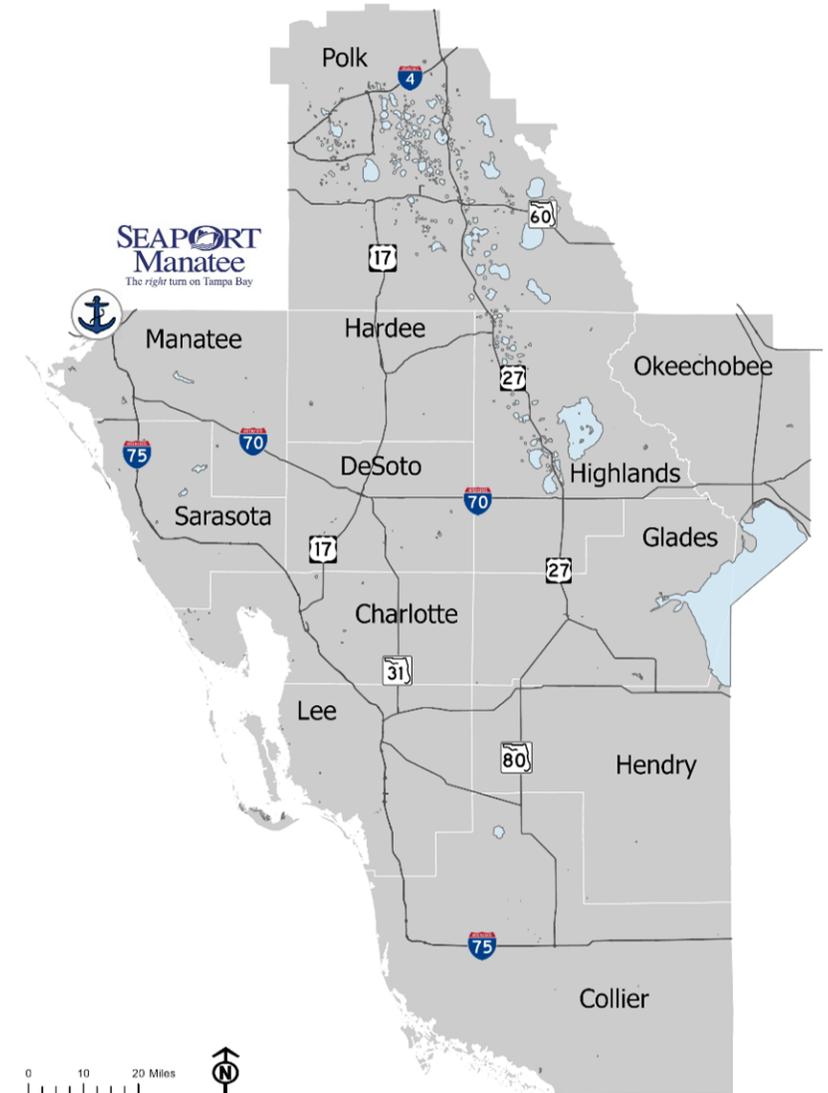
SeaPort Manatee is a deepwater seaport located in Palmetto, Florida. It is owned and operated by the Manatee County Port Authority, which is a special district of the State of Florida. The seaport is situated at the mouth of the Manatee River, which flows into the Gulf of Mexico.

According to their website, SeaPort Manatee has a range of specialized equipment capable of handling different types of cargo, including bulk, break-bulk, containerized, and project cargo. The seaport has four Gottwald mobile harbor cranes and one Liebherr mobile harbor crane, with a lift capacity of 120 tons at 80 feet and a tandem lift capacity of 165 tons. These cranes are capable of handling a variety of bulk and break-bulk cargo at multiple berth locations.

The seaport has 70 acres of laydown area, which makes it a competitive choice for project cargo. SeaPort Manatee has previously handled bulk commodities such as liquid petroleum products, citrus juice, dry aggregates, salt, and agricultural products. Concerning break-bulk cargoes, the seaport has previously handled used vehicles, steel, aluminum, lumber, plywood, fencing, wood pulp, fruit, and vegetables.

SeaPort Manatee is also equipped to handle containerized cargo, with four container spreaders and three mobile harbor cranes that can handle 25-30 lifts per hour. The seaport has efficient truck turn times, and it is the closest US port to the Panama Canal, allowing for a two to three-day transit time to Central America and Mexico.

SIS Seaports



In 2012, the Florida Governor and Legislature established an Intermodal Logistics Center (ILC) Infrastructure Support Program within FDOT. As a response, Florida Statute 311.101 was created that outlines and defines ILCs in Florida. An identified facility must be physically separated from a seaport, marine terminal, or commercial airport and serve as a point of intermodal transfer of freight. It must carry out functions relating to transport, logistics, goods distribution, consolidation, or value-added activities.

District 1 Intermodal Logistics Centers

1A

Primary ILC located in Winter Haven (Central Florida ILC)

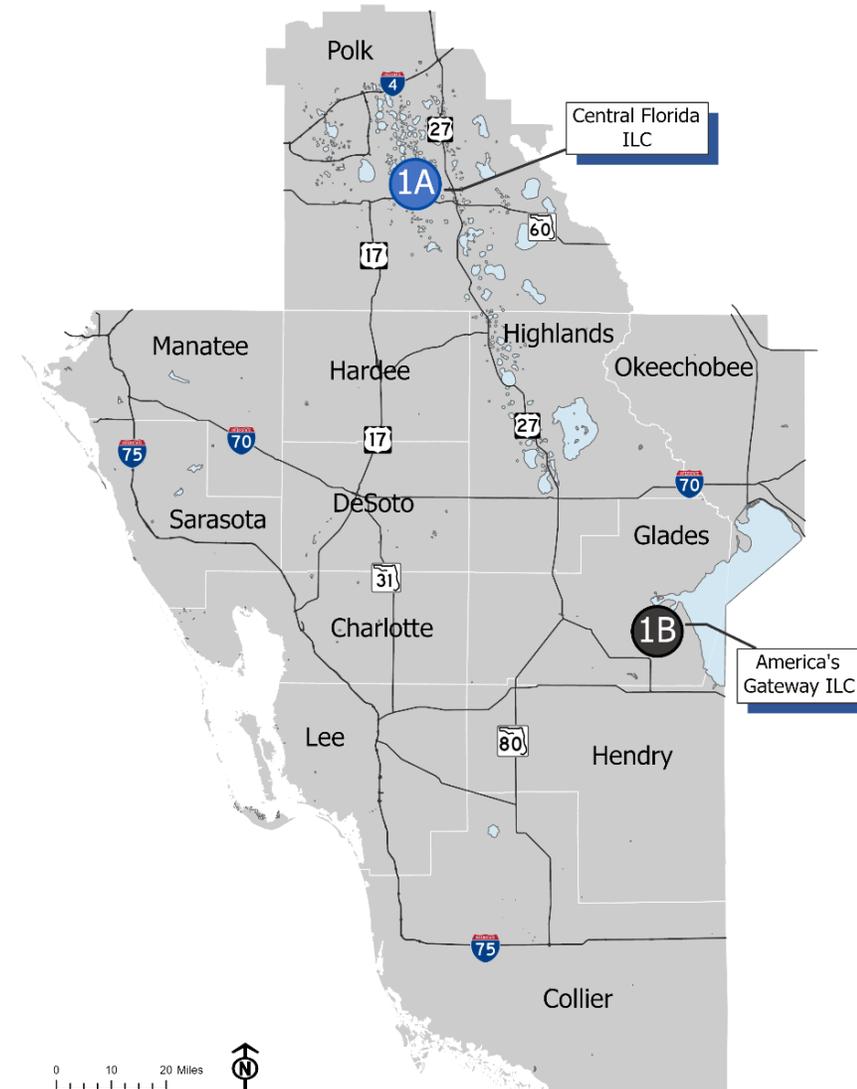
1B

Planned ILC located in Glades County (America's Gateway ILC)

The ILC in D1 is a vital freight transportation hub located in Winter Haven, Florida. It is designated as a SIS facility and serves as a major inland port in the region, connecting Florida's seaports with major markets throughout the Southeastern United States.

The America's Gateway ILC will be a 772-acre rail served intermodal logistics center in Glades County. It will be the result of a public-private partnership between Glades County, the City of Moore Haven, and an international logistics company, AFT Global.

The project is currently in the planning and development stage, with construction expected to begin in the next few years. The America's Gateway ILC is a key part of D1's efforts to support the efficient movement of freight throughout the region and promote economic growth.



About the Central Florida ILC in Winter Haven

The Central Florida ILC is a state-of-the-art multimodal transportation facility with rail, truck, and intermodal transfer capabilities. It serves as a hub for logistics and distribution operations and is situated on 930 acres of land, making it one of the largest logistics centers in Florida. The ILC is located near the CSX Intermodal Terminal and has easy access to major highways such as I-4, US-27, and SR-60. It connects major cities such as Miami, Atlanta, and Chicago, attracting major companies such as Amazon, Walmart, and Best Buy.

The ILC is a 318-acre terminal that has five 3,000-foot loading tracks and two 10,000-foot arrival/departure tracks. The terminal handles approximately 300,000 containers each year. It features automated cranes, which optimize efficiency and increase capabilities by more than 600% over traditional crane operations. The ILC is the largest of its kind in Florida and is planned to develop up to 7.9 million square feet of warehouse distribution centers, light industrial, and office facilities.

With its continued growth and development, it will continue to have a significant impact on the region's economic competitiveness for many decades to come.



This is one of the most modern centers in the world today.

Wilby Whitt
President
CSX Intermodal Terminals



During the State FMTP process, Freight Mobility Corridors (FMCs) were designated to denote the essential components of the transportation network for moving goods within a region. These can be divided into three modes: highway, rail and waterways. For the highway component, three types of facilities were identified, which are defined as follows:

Limited-Access

These roadways are on Florida's SIS network and provide uninterrupted flows for high volumes of traffic, serving as primary trade corridors connecting certain regions of the state to the rest of the state and country.

Regional Facility

These corridors provide high-capacity connections between limited access facilities and regional freight activity centers, serving the region through movements for long-haul truck trips and accommodating high volumes of truck traffic. They may be part of the SIS network.

Distribution Route

This category includes state and other local roadways designated in local truck route ordinances at the county and municipal levels. Freight distribution routes distribute truck traffic to local delivery areas, providing a network for trucks to deliver goods while minimizing truck traffic on other local roads within populated areas.

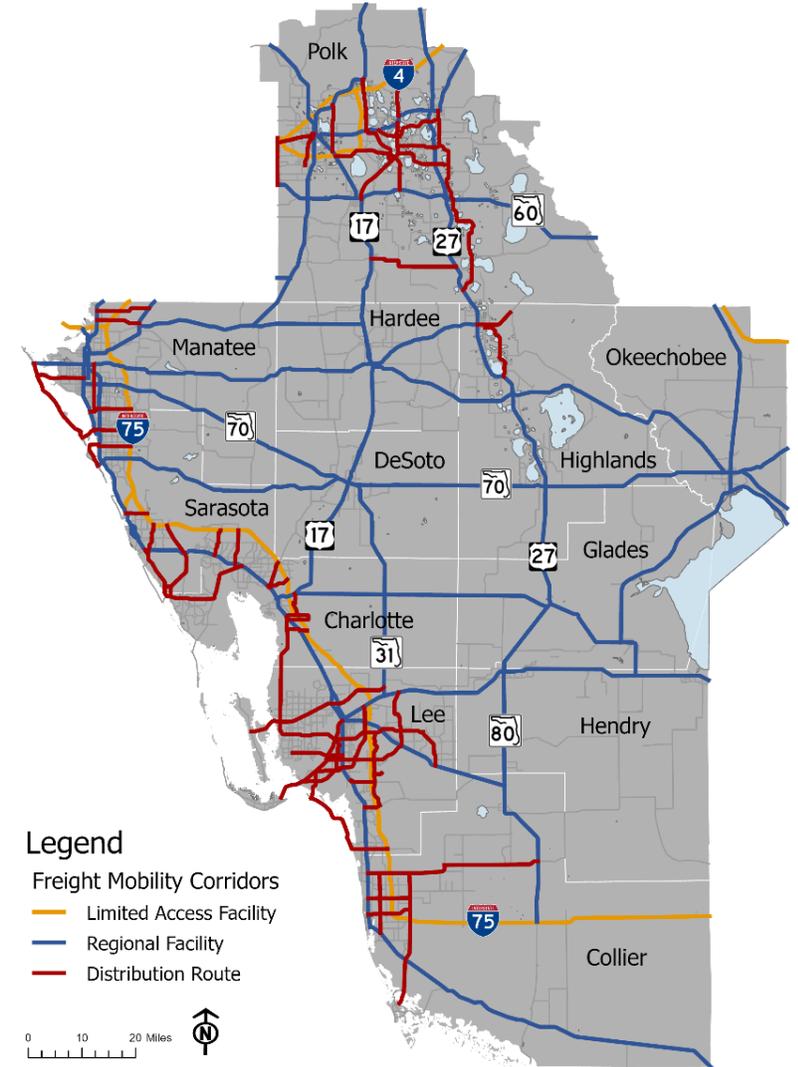


Less revenue, more people, more freight, more gridlock - that is not a formula for success.

Anthony Foxx
US Secretary of Transportation 2013- 2017



District 1 Freight Mobility Corridors





SR64 & Rye Road, Bradenton

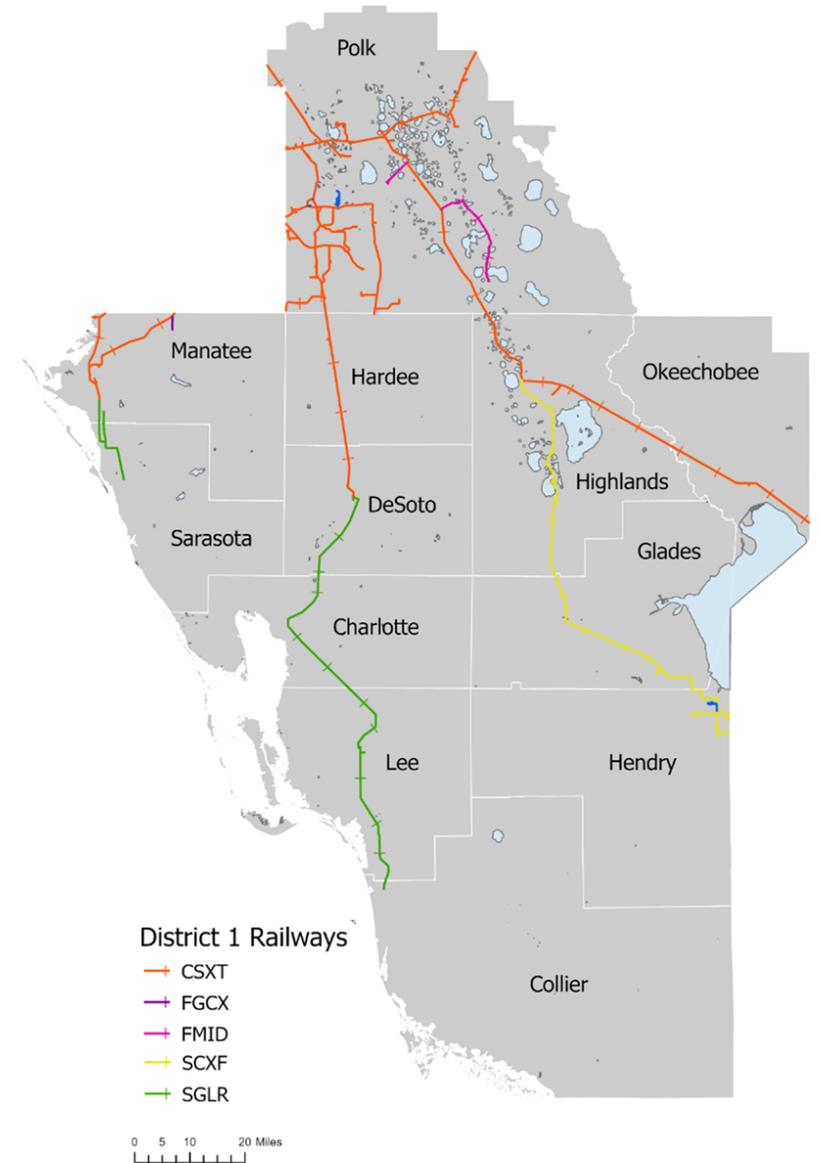
District 1 is served by five railroad companies:

- CSX Transportation (CSXT)
- Florida Gulf Coast Railroad (FGCX)
- Florida Midland Railroad (FMID)
- South Central Florida Express (SCFE)
- Seminole Gulf Railway (SGLR)

There are 678 total miles of railroad, of which 248 are SIS. There are 336 rail and roadway crossings and nine rail bridges. The primary use of the railroads in D1 is ILC container transport, mining materials distribution, and sugar distribution.

County Name	Rail Miles	Percentage of Rail Miles
Charlotte	25	3.67%
Collier	2	0.23%
DeSoto	25	3.74%
Glades	37	5.42%
Hardee	26	3.77%
Hendry	22	3.31%
Highlands	84	12.35%
Lee	39	5.79%
Manatee	48	7.05%
Okeechobee	30	4.38%
Polk	325	47.96%
Sarasota	16	2.35%
Total	678	100.00%

Railroads in District 1





595

595

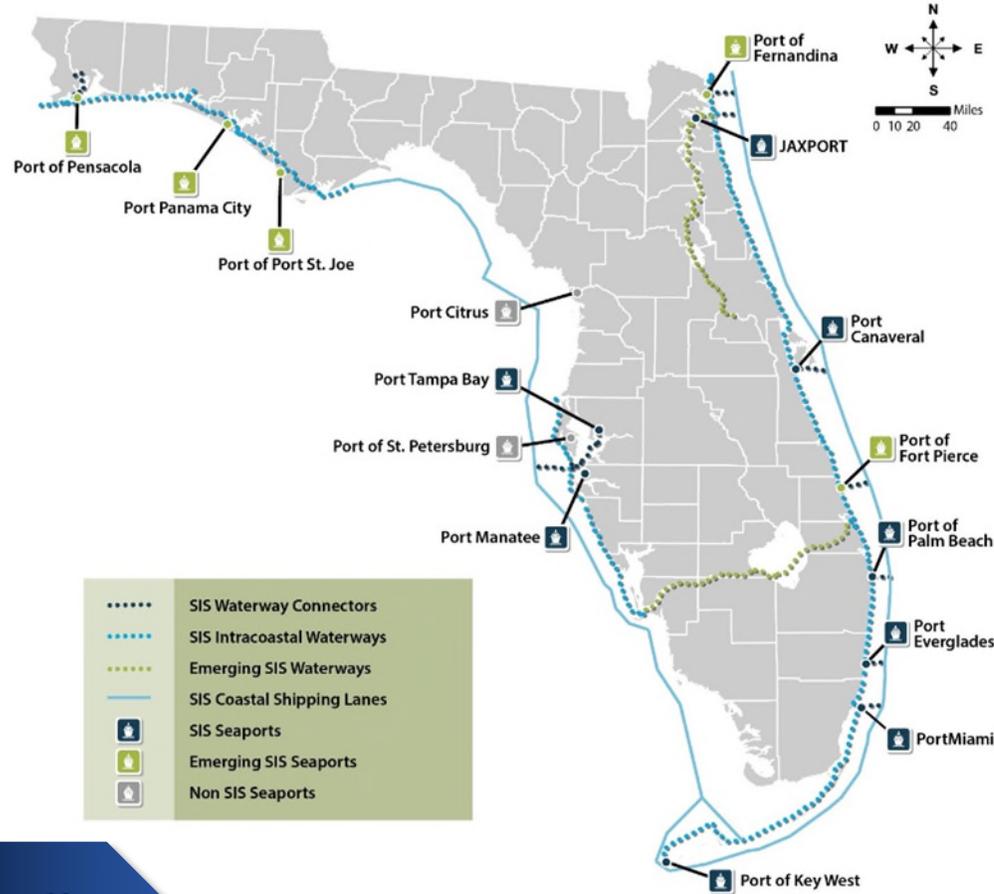
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SIS waterways consist of coastal shipping lanes, intracoastal waterways, inland waterways and waterway connectors. District 1 has the following freight related water elements:

- SIS Seaport
- SIS Shipping Lanes
- SIS Intracoastal Waterways
- Emerging SIS Waterways

Florida SIS Waterways and Seaports



Quantifiable criteria for SIS Emerging Categories

SIS Component

Coastal Shipping Lanes and Intracoastal Waterways

- Designation intracoastal waterways or coastal shipping lane handling international waterborne trade?

Inland Waterway: Deep Draft Size Criteria

(Must meet both of the following)

- Authorized depth of waterways \geq 12 feet
- $>0.25\%$ of U.S. total annual waterway freight tonnage

Inland Waterway: Shallow Draft Size Criteria

(Must meet both of the following)

- Authorized depth of waterways $<$ 12 feet
- $\geq 0.25\%$ of U.S. total annual domestic waterway freight tonnage

Emerging SIS Component

Must meet either size or economic connectivity criteria

Inland Waterway: Deep Draft Size Criteria

(Must meet both of the following)

- Authorized depth of waterways \geq 12 feet
- $>0.05\%$ of U.S. total annual waterway freight tonnage

Inland Waterway: Shallow Draft Size Criteria

(Must meet both of the following)

- Authorized depth of waterways $<$ 12 feet
- $\geq 0.05\%$ of U.S. total annual domestic waterway freight tonnage

Economic Connectivity Criteria

(Key Industry Employment; Must meet both of the following)

- $\geq 0.05\%$ of U.S. total employment of industries dependent on waterborne transportation* (within 1 mile)
- Located in a county or city with a designated Rural Area of Critical Economic Concern (RACEC) and $\geq 0.01\%$ of U.S. total employment of industries dependent on waterborne transportation* (within 1 mile)

*Industries dependent on waterborne transportation include agricultural and forestry (NAICS 11); mining (NAICS 21); and trade and logistics (NAICS 42, 48, 49)

Source: Table 2 Revised SIS and Emerging SIS Criteria's and Thresholds for Waterways, 2010 SIS Strategic Plan Implementation Guidance



The Charlotte Harbor is a natural deep draft harbor in Charlotte County. The channel is approximately 24 miles long and has an authorized depth of 32 feet. While there is no public port in the harbor, commodities, such as machinery, are still shipped throughout the region. The Boca Grande Pass serves as the access point to the Gulf of Mexico.

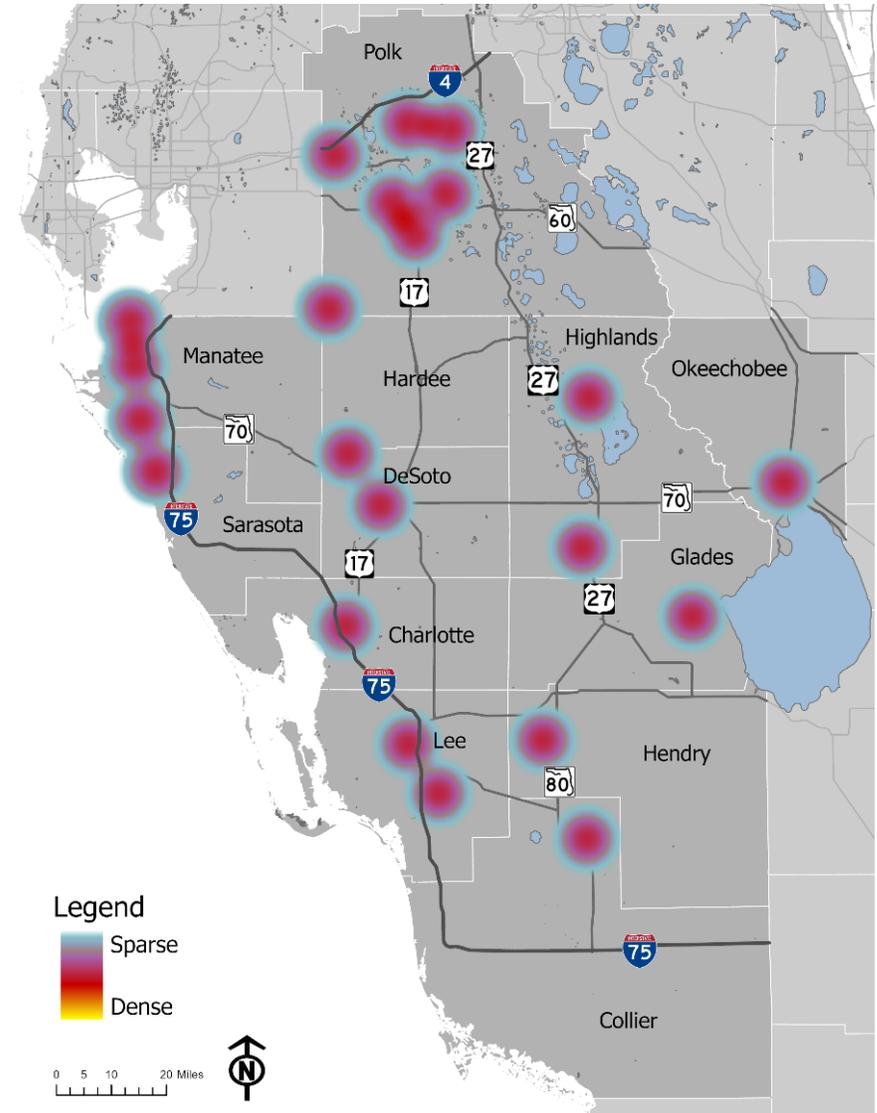
Freight Activity Centers (FACs) are locations where significant freight-related activities occur, such as warehousing, distribution, manufacturing, and intermodal freight transfer. These centers are important to D1 because they are key nodes in the region's freight transportation network, where goods are consolidated, stored, and distributed.

The efficient movement of goods to and from these centers is essential to support economic growth and competitiveness in the region. D1 works to identify and support the development of FACs through strategic investments in transportation infrastructure, such as highways, rail lines, and intermodal terminals. In addition, D1 collaborates with stakeholders, such as local governments, shippers, carriers, and logistics providers, to understand the needs of the freight industry and identify opportunities to improve the movement of goods. The District also promotes the use of advanced technologies and best practices to enhance the safety, efficiency, and sustainability of freight transportation.

Freight by Mode Per County (Tonnage)				
County	Truck	Rail	Air	Water
Charlotte	99.97%	0.03%	0.00%	0.00%
Collier	99.97%	0.03%	0.00%	0.00%
DeSoto	99.99%	0.01%	0.00%	0.00%
Glades	99.98%	0.02%	0.00%	0.00%
Hardee	46.27%	53.73%	0.00%	0.00%
Hendry	92.55%	7.45%	0.00%	0.00%
Highlands	97.15%	2.85%	0.00%	0.00%
Lee	99.67%	0.28%	0.05%	0.00%
Manatee	81.57%	5.69%	0.80%	12.73%
Okeechobee	94.65%	5.35%	0.00%	0.00%
Polk	56.73%	43.27%	0.00%	0.00%
Sarasota	99.81%	0.19%	0.00%	0.00%

Source: FDOT Freight and Commodity Analysis (2021), Transearch database (2018)

District 1 Freight Activity Centers







SunTrax is a state-of-the-art transportation innovation center located in Polk County, Florida. FDOT developed it in partnership with Florida's Turnpike Enterprise and Florida Polytechnic University. The facility covers 475 acres off I-4 in Polk County, offering a 2.25-mile-long test track and a 200-acre infield focused on connected and autonomous vehicle (CAV) testing.

SunTrax aims to advance technology solutions that improve transportation safety and efficiency. Its services include customized testing sectors, engineering support, specialized test equipment, and full-service testing performance oversight. The facility features a main entry campus, maintenance and workshop buildings, a geometry track, a loop track, a high-speed oval, urban and suburban test settings, noise and vibration testing areas, wet test tracks, and an observation tower.

1 Main Entry Campus

- 20,000-sq. ft. Arrival and Conference Center
- Offices, classrooms, plus indoor and outdoor event spaces
- Smart building technologies

2 Maintenance and Workshops

- 27,000-sq. ft. maintenance building
- 56,000-sq. ft. air-conditioned workshop buildings with 2,800-sq. ft. bays
- Controlled access, resilient high-speed data connection

3 Geometry Track

- Undulating topography built into manufactured hill-scape
- Complex horizontal and vertical curves with irregular grade changes

4 Loop Track

- Incorporates entrance and exit ramps into a multi-lane continuous loop track
- Can be used for maintenance of traffic during road construction and collision avoidance

5 High-Speed Oval

- 2.25-mile oval track with 70 mph design speed
- 1-mile independently operable 5-lane straightaways
- 4 free-flow toll gantries

6 Urban

- Reconfigurable facades simulating city-like buildings using shipping containers
- Simulates complex urban intersection configurations, signalization

7 Pick-Up / Drop-Off

- Replicates multi-modal passenger transfers: airports, hotels, and transit centers
- Adjustable signing and curb-side pick-up and drop-off scenarios

8 Suburban

- Multi-lane roundabout
- Multiple closely-spaced driveways
- Two-lane, two-way traffic

9 Noise, Vibration and Harshness

- 8 standard "pavement" surfaces
- Tests steering control, durability and skid control
- External Noise Track

10 Technology Pad

- Accommodates vehicle-in-the-loop testing
- 28-acre paved open space
- Replicate real-world geometric configurations

11 Wet Test Tracks

- Multiple pavement types
- Controlled wetting system
- Concurrent testing

12 Observation Tower

- 75-foot-tall structure offers a birds-eye view of most testing environments

13 Operations Building

- LEED-Certified building with exceptional training and testing facilities

Explore SunTrax.



District Freight Coordinator Overview

District Freight Coordinators (DFCs) are professionals within FDOT who serve as primary points of contact for freight-related issues within their designated districts. Currently, there are seven FDOT districts in Florida, each with its own DFC.

The primary role of DFCs is to coordinate and implement efforts to improve freight mobility, freight infrastructure, and related operations throughout Florida and regions as part of an integrated, multimodal system, regardless of funding or ownership. They work closely with stakeholders, including government agencies, economic development organizations, private businesses, and freight customers/partners, to gather input, communicate policies and programs, and coordinate freight transportation investment decisions.

DFCs work to establish and maintain relationships with stakeholders to act as a resource, advocate for freight issues, and promote a united front for improving freight transportation within their district/region. DFCs also coordinate public-private, state-local, and state-federal freight transportation investment decisions embedded within the SIS Plan.

In addition to their primary roles, DFCs provide technical assistance and guidance to stakeholders on freight-related issues, including freight data analysis and modeling, freight demand forecasting, and freight transportation infrastructure design and planning. They monitor and evaluate the effectiveness of freight-related programs and projects within their district and make recommendations for improvements.



2018 US-27 Mobility Working Group Meeting



2018 Freight Trucking Forum



2021 Freight Trucking Forum

2022 Freight Trucking Forum



2022 US-27 Mobility Stakeholder Working Group

District 1 is committed to providing avenues to learn more about and discuss freight with its stakeholders within the jurisdiction. The pictures represent different forums that have been established within the district over the past few years. By discussing and learning the needs of the freight community, better opportunities will come up for discussion regarding improvements needed to the transportation network.

Stakeholder Engagement Activities

Economic Development

Engagement with the economic development community representing interest at the local, regional, and state levels within D1.

Activities: Florida Freight Leadership Forum, Florida Chamber Trade & Logistics Institute, Regional stakeholder forums and summits, and local meetings.

Outcomes: Ensure coordination with economic development agencies, the private sector, and other stakeholders to ensure a united front in freight and multimodal transportation improvements within their district/region.

Frequency: Ongoing

Law Enforcement

One-on-one engagement with local, state, and federal law enforcement agencies throughout D1.

Activities: Ridealongs, industry forums, and safety meetings.

Outcomes: Identify safety, operational, and infrastructure preservation concerns in addition to emerging trends within the trucking industry in D1.

Frequency: Ongoing

One-on-One Stakeholder Interviews

One-on-one engagement with associations, agribusinesses, farmers, growers, producers, and ranchers.

Activities: Identify mobility and safety needs that enable Florida's Agriculture to maintain a competitive advantage in the global marketplace and keep costs low for consumers.

Frequency: Ongoing

Freight Trucking Forums

Opportunity to raise awareness of state and local projects and policies with the trucking industry and associated partners.

Outcomes: Generate dialogue on issues and concerns identified by industry stakeholders to seek improvement strategies.

Frequency: Annually

US-27 Mobility Working Group Meetings

Opportunity to bring stakeholders together to identify freight mobility needs and discuss other items or issues related to planning and development.

Outcomes: Identification and/or development of strategies that strive to improve mobility, safety, and livability for all users with an emphasis on freight.

Frequency: Biannually

Opportunities and Events

D1 has recently held several stakeholder engagement opportunities and events to gather input from stakeholders on freight-related issues, including:

- 2018 Freight Trucking Forum
- 2018 US-27 Mobility Working Group Meeting
- 2021 Freight Trucking Forum
- 2022 US-27 Mobility Stakeholder Working Group
- 2022/2023 Vision Zero Workshop

In addition, one-on-one stakeholder interviews have been conducted with the following:

- Burgin Farms
- Bynum
- Everglades Harvesting
- Exxact Express
- Florida Highway Patrol – Commercial Vehicle Enforcement
- Oakley

These events allowed stakeholders to engage in a dialogue with FDOT representatives, provide feedback on existing policies and programs, and help shape the future of freight transportation planning and implementation in Florida. The forums and meetings focused on issues such as freight mobility, infrastructure, and operations, as well as other statewide policy initiatives.

Existing Industry Stakeholders within District 1



Section III

TREND ANALYSIS



Urbanization and Megaregions

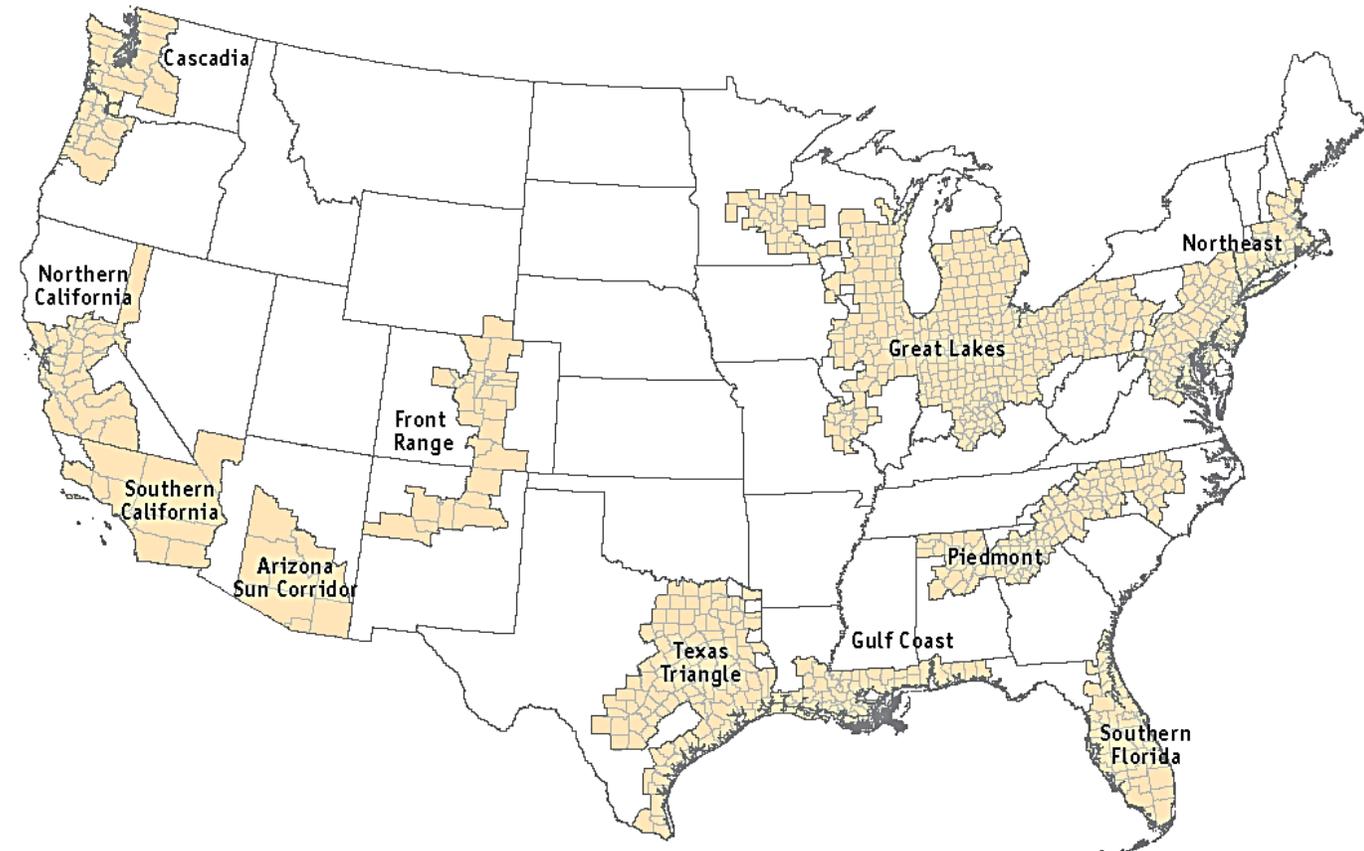
With the US population projected to reach 458 million by 2050, the surrounding rural areas of major cities are undergoing rapid urbanization. As a result, the concept of megaregions emerged. According to the Regional Plan Association (RPA), a megaregion is a large metropolitan area interconnected through shared environmental systems, cultural ties, infrastructure, economic patterns, and functional characteristics. The RPA identifies 11 megaregions in the US, including:

1. Arizona Sun Corridor
2. Cascadia
3. Southern Florida
4. Front Range
5. Great Lakes
6. Gulf Coast
7. Northeast
8. Northern California
9. Piedmont Atlantic
10. Southern California
11. Texas Triangle

The Southern Florida megaregion, where D1 is located, consists of four metropolitan cities with a population of 300,000 or more: Miami, Jacksonville, Orlando, and Tampa. Increased densities of freight businesses within this megaregion will improve economies of scale for logistics. Logistical efficiencies can improve the movement of goods between businesses or consumers. The Southern Florida megaregion could also work together to target specific freight industries as a unified region to attract them to the region.

Megaregions are often home to major ports, airports, and transportation hubs that serve as gateways for international trade. Additionally, they are also home to many large manufacturers and distribution centers, making them crucial hubs for the distribution of goods across the country.

Regional Plan Association Identified Megaregions



Population and Growth

Population growth is a critical factor in transportation planning and infrastructure development in FDOT D1. Between 2000 and 2020, the population of D1 increased by 46.7 percent, with the most significant growth in Lee, Polk, Collier, and Manatee Counties. The increase in population and demand for goods and services has implications for the supply chain, including freight transportation, customs brokerage, and warehousing services.

As the population density increases, transportation planning needs to focus on developing infrastructure that enables efficient movement of people and goods. At the same time, the environmental impact of transportation activities must be considered, such as air pollution and overuse of non-renewable resources. Additionally, the increase in single-occupancy vehicles or freight trucks on the road can lead to increased congestion, resulting in lost time and revenue for individuals and businesses.

Overall, population growth in FDOT D1 can present both advantages and challenges. Transportation planning must balance the need for economic growth with the need to mitigate the negative impacts of transportation on the environment and traffic congestion. As such, transportation planners and policymakers must collaborate to develop strategies that enhance the region's economic growth while also ensuring sustainable and efficient transportation infrastructure.

Population Growth by County 2000 - 2020

Name	2000	2020	Percent Change
Charlotte	141,627	186,847	31.9%
Collier	251,377	375,752	49.5%
DeSoto	32,209	33,976	5.5%
Glades	10,576	12,126	14.7%
Hardee	26,938	25,327	-6.4%
Hendry	36,210	39,619	9.4%
Highlands	87,366	101,235	15.9%
Lee	440,888	760,822	72.6%
Manatee	264,002	399,710	51.4%
Okeechobee	35,910	39,644	10.4%
Polk	483,924	725,046	49.8%
Sarasota	325,957	434,006	33.1%
Totals	2,136,984	3,134,110	46.7%

Source: data.census.gov

Shipping Patterns

In 2018, Florida's import market saw an influx of 142 million tons of goods worth an estimated \$321 billion, while 57 million tons of goods worth approximately \$180 billion were exported, resulting in a total trade value of over \$500 billion. The transportation of these goods was facilitated through a combination of rail, truck, ocean vessels, and air transportation. To maintain a strong economy, it is crucial to sustain the viability of Florida's transportation infrastructure.

SeaPort Manatee, the only deepwater port in D1, played a crucial role in this trade. In 2021, SeaPort Manatee reported exporting goods worth over \$208 million and importing goods worth approximately \$1.24 billion, with a total trade value of \$1.45 billion. Mexico ranked first among its top 25 trading partners, accounting for 44% of all trade.

- | | | |
|---------------|---------------|------------------|
| 1. Mexico | 10. Vietnam | 19. Bahamas |
| 2. Brazil | 11. Panama | 20. Germany |
| 3. Argentina | 12. Israel | 21. Denmark |
| 4. Costa Rica | 13. Canada | 22. Netherlands |
| 5. Peru | 14. Algeria | 23. Belgium |
| 6. Australia | 15. Ecuador | 24. Saudi Arabia |
| 7. China | 16. Indonesia | 25. Russia |
| 8. Colombia | 17. Turkey | |
| 9. Guatemala | 18. Chile | |

Major Shipping Routes of Florida Products



Source: Florida Department of Agriculture and Consumer Services

Global Supply Chain Disruptions Caused by COVID-19

The global supply chain is a complex network that facilitates the production, packaging, and delivery of goods and services worldwide. However, it is vulnerable to disruptions in uncertain environments such as political, economic, or environmental instability. The COVID-19 pandemic created significant supply chain disruptions with entire countries and economies under government-mandated lockdowns, resulting in labor and material shortages. It also significantly impacted the transportation industry, with transportation workers being vulnerable to unemployment due to the in-person nature of their jobs and limited remote work opportunities.

The resulting labor shortage impacted Florida's agriculture industry, as many farmworkers could not travel within and through the State due to travel restrictions. This shortage of labor led to a decline in crop production and had a domino effect negatively affecting the food supply chain.

The pandemic also led to a shortage of semiconductor chips, which impacted the production of new automobiles and caused increased pricing for new and used vehicles. The shutdown of many businesses and decreased consumer spending led to a slowdown in the movement of goods through the state's ports, airports, and highways.

To mitigate these disruptions, the State of Florida opened its seaports early to ease congestion at the west coast ports in the US. Transportation infrastructure and facilities in D1, including warehouses and distribution centers, were effectively utilized to keep freight moving and maintain the economy's stability, demonstrating the resilience of Florida's leadership and infrastructure.

As a result of D1 opening its port during the pandemic, SeaPort Manatee continued to see increases in container movements each year. In fact, SeaPort Manatee growth has exceeded \$5.1 billion in 2022 which us a 30 percent increase year over year.



Trade Policy, Trade Agreements, and Foreign Trade Zones

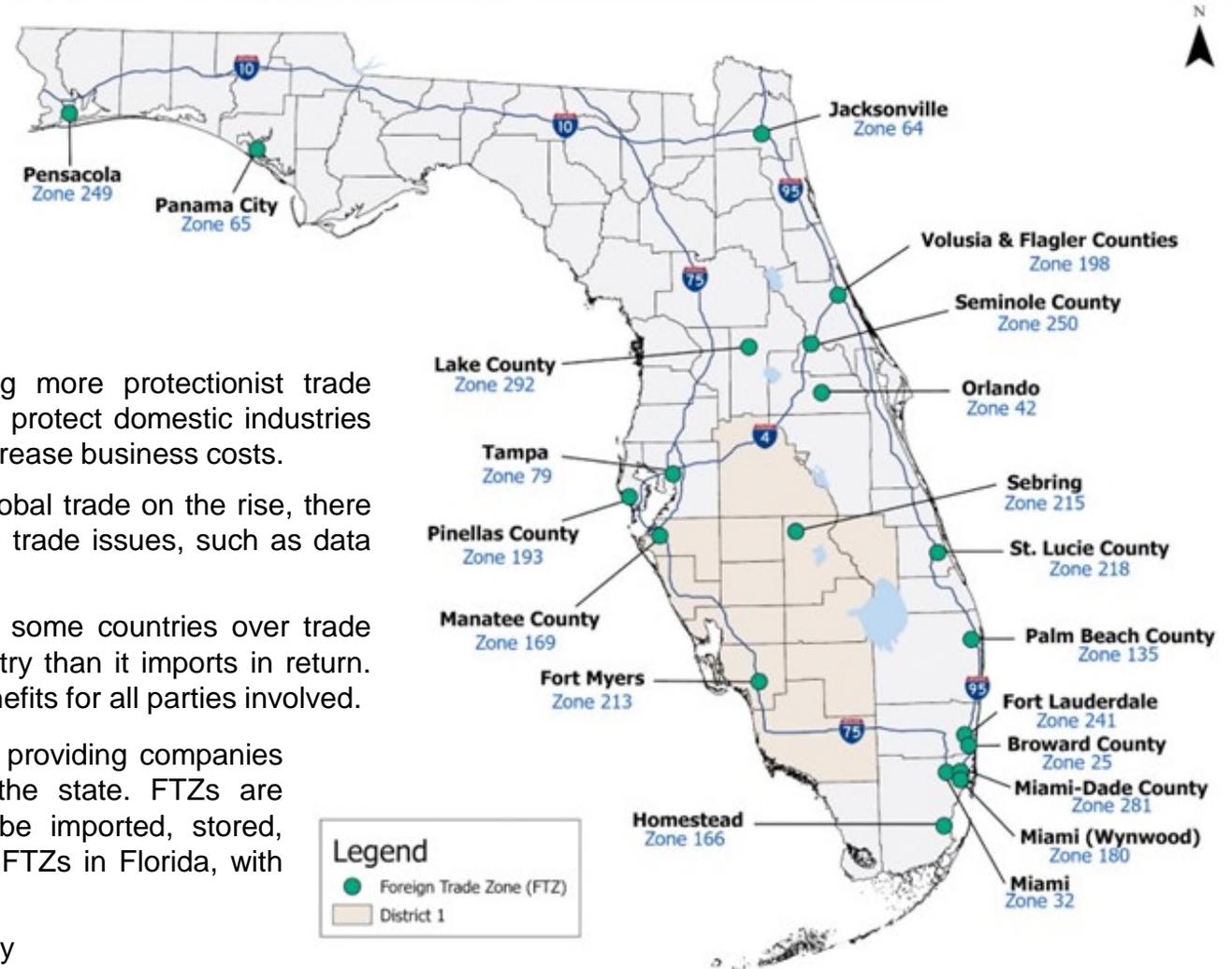
Florida is impacted by several trade policy and trade agreement trends established at the federal level. These policies and agreements affect the State, shaping the trade landscape for businesses operating within its borders. Some of the notable trade policy and agreement trends that impact Florida include:

- 1. Increased focus on regional trade agreements:** There has been a growing trend towards regional trade agreements, such as the US Mexico-Canada Agreement (USMCA) and the Trans-Pacific Partnership (TPP). These agreements aim to reduce barriers to trade between countries in a specific region, which can provide significant benefits for businesses in those countries.
- 2. Protectionist trade policies:** Some countries have been implementing more protectionist trade policies, such as tariffs and import quotas, in recent years. These policies protect domestic industries from foreign competition but can also limit access to foreign markets and increase business costs.
- 3. Shift towards digital trade:** With e-commerce and digital technology in global trade on the rise, there has been a growing focus on policies and agreements that address digital trade issues, such as data privacy and the free flow of data across borders.
- 4. Growing concern over trade imbalances:** There is growing concern in some countries over trade imbalances, where one country exports significantly more to another country than it imports in return. This has led to calls for balanced trade agreements that promote mutual benefits for all parties involved.

Foreign Trade Zones (FTZs) also play a role in Florida's trade landscape by providing companies with a competitive advantage and helping attract foreign investment to the state. FTZs are designated areas within the US where foreign and domestic goods can be imported, stored, processed, and re-exported without customs duties and taxes. There are 20 FTZs in Florida, with three in FDOT D1. These include:

- **FTZ #169 Manatee County, FL** | Manatee County Port Authority
- **FTZ #213 Fort Myers, FL** | Lee County Port Authority
- **FTZ #215 Sebring, FL** | Sebring Airport Authority

Florida's Foreign Trade Zones



Trending Strategies for Improving Supply Chain Efficiency

Last-Mile Delivery, Curb Management and Just-In-Time (JIT) Delivery are all supply chain and transportation strategies that aim to improve supply chain efficiency and reduce waste. However, they differ in their focus, goals, and key players involved. In the table below, the key differences are discussed including their definitions, goals, application, key players, strategy type, key metrics, and challenges. Understanding the differences between these strategies can help planners and freight stakeholders optimize their operations, reduce waste and costs, and improve customer satisfaction. By analyzing the key differences between last-mile delivery, curb management, and JIT delivery, stakeholders can make informed decisions about which strategies to prioritize and how to allocate resources effectively.

Last-Mile Delivery

Definition: Delivery of products from a distribution center to the final destination

Goal: Ensure efficient and timely delivery to end customers

Application: Logistics/Transportation Industry

Key Players: Carriers and Delivery Service Providers

Strategy Type: Short-Term

Key Metrics: Delivery Times, Customer Satisfaction, Delivery Costs

Challenges: Traffic Congestion, Delivery Delays, Package Theft

Curb Management

Definition: Management of curbside space for pick-up and drop-off activities

Goal: Optimize use of curbside space for multiple stakeholders

Application: Urban Transportation and Planning

Key Players: Local Government, Transportation Companies, Retailers

Strategy Type: Medium-Term

Key Metrics: Turnover Rate, Occupancy Rate, Revenue Generated

Challenges: Limited Curb Space, Competition for Use, Enforcement

Just-In-Time Delivery

Definition: Delivery of materials or products at the right time to be used in the manufacturing process

Goal: Minimize inventory and reduce waste

Application: Manufacturing Industry

Key Players: Suppliers and Manufactures

Strategy Type: Long-Term

Key Metrics: Production Efficiency, Inventory Turnover, Waste

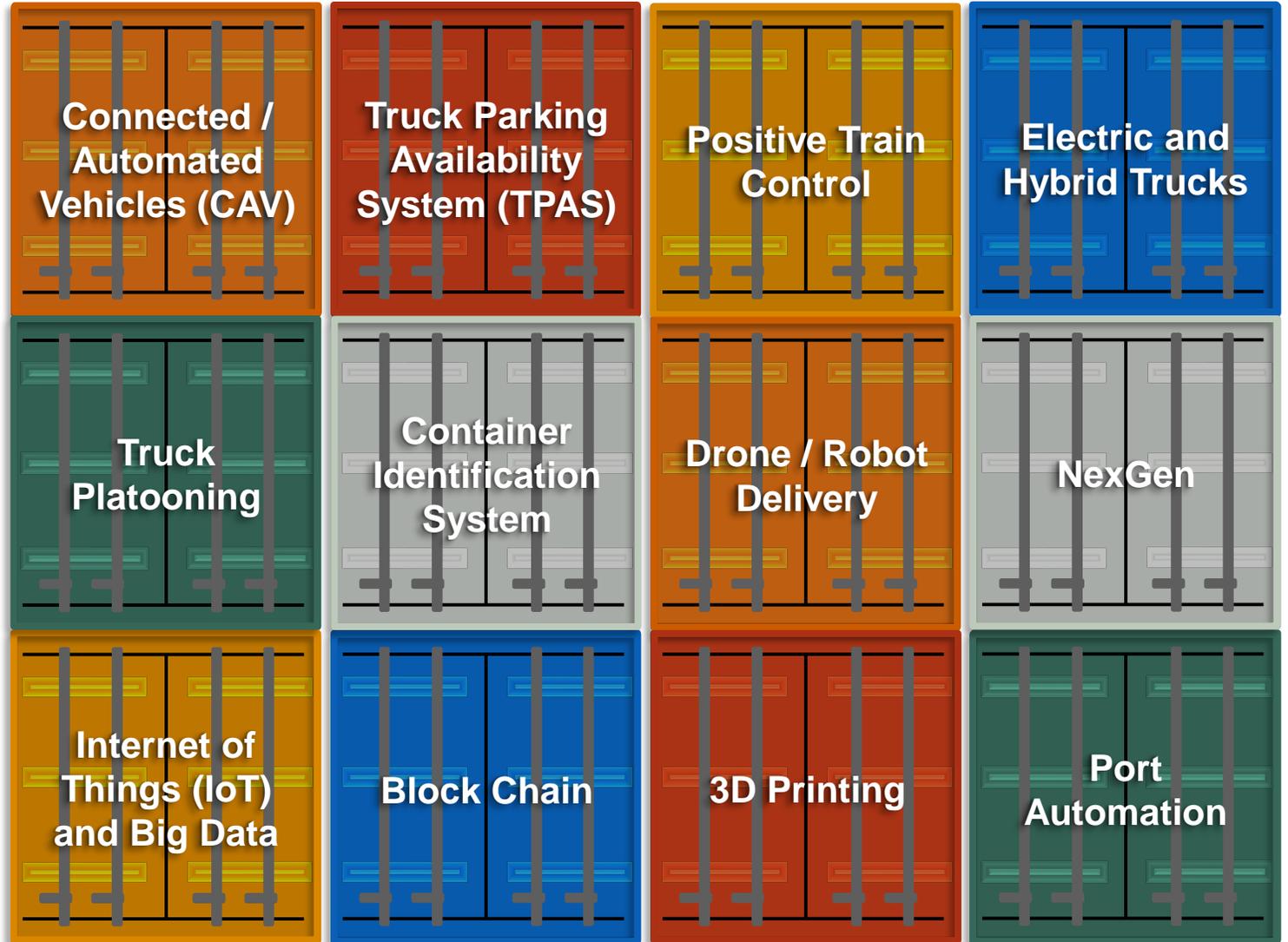
Challenges: Supply Chain Disruptions, Poor Coordination

Emerging Technologies

The trend of new and emerging technologies has significantly impacted the freight industry and the global supply chain, transforming how goods are transported, managed, and tracked. These technological advancements have led to increased efficiency, cost savings, and overall improvements in supply chain management. Some of the ways in which these technologies have affected the freight industry and global supply chain are:

- Enhanced visibility and tracking
- Improved efficiency and automation
- Optimized logistics and routing
- Increased collaboration and transparency
- Enhanced risk management and resilience
- Greater sustainability and environmental consciousness
- Improved workforce development and safety

By staying up to date with these emerging technologies, freight stakeholders in D1 can make strategic investments and adapt their operations to remain competitive and efficient in the industry.



Trends Impacting the Trucking Industry

The Florida trucking industry faces multiple challenges that significantly impact its efficiency, safety, and growth. To better understand these concerns, we will explore three major topics: truck parking shortages, hours of service regulations, and the truck driver shortage. By diving into these issues, we aim to shed light on the current state of Florida's trucking industry and outline potential solutions to address these pressing challenges.

Truck Parking

There is a nationwide truck parking shortage, with an estimated one space for every 11 drivers according to FHWA, ATA, and OOIDA. To address this, FDOT has conducted statewide studies, and is developing a truck parking availability system, and making improvement recommendations.

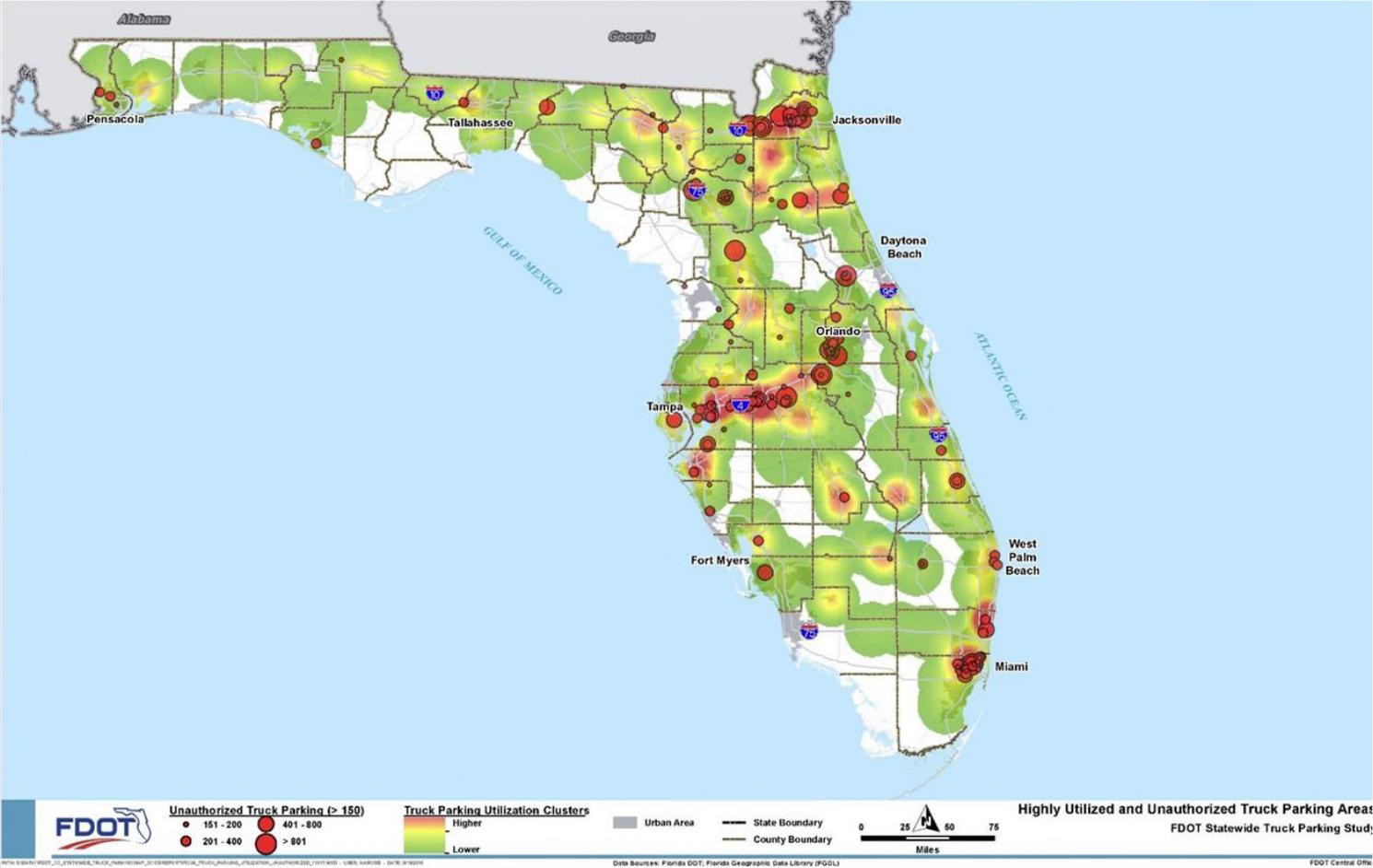
Hours of Service Regulations

The Federal Motor Carrier Safety Administration enforces hours of service (HOS) regulations to prevent over-the-road truck accidents. All commercial vehicle drivers must comply with the HOS final rule, which took effect on September 29, 2020.

Truck Driver Shortage

The trucking industry is experiencing a significant driver shortage, with projections suggesting a deficit of 160,000 drivers by 2030. To address this, the industry must focus on attracting and retaining drivers through marketplace solutions and legislative considerations. Florida is offering a \$3.1 million grant for driver training and extending office hours for CDL appointments to help alleviate the problem.

ES 2 | Unauthorized Truck Parking and Utilization of Public and Private Truck Parking



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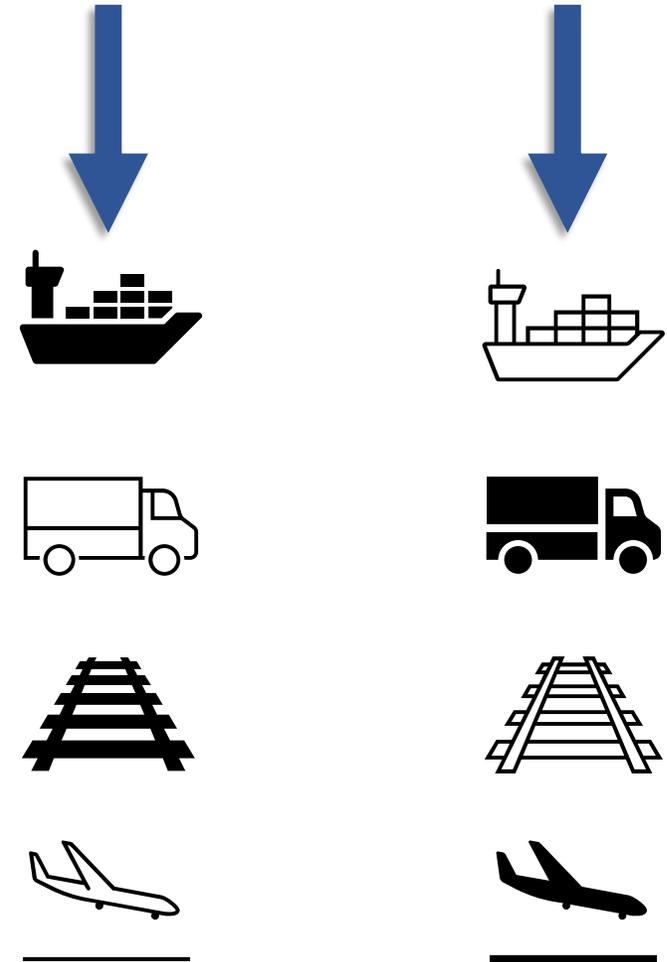
The Implementation Guide is here to serve as an adaptive blueprint for advancing and optimizing the freight and logistics programs within D1. Building upon the successes and lessons learned from the 2016 D1 FMTP, this section offers updated guidance that aligns with the evolving state plans and policies while addressing the unique challenges and opportunities at the district level.

The primary objective of this guide is to fulfill the second goal of the FMTP, which is to **Develop a Plan**. As such, it provides a clear and actionable roadmap for planners, policymakers, and stakeholders to enhance the freight and logistics landscape within D1 collaboratively. By incorporating diverse interests and concerns from both the public and private sectors, this guide emphasizes a holistic and inclusive approach to foster future improvements, policy initiatives, and operational advancements.

The Implementation Guide covers several key aspects of the freight and logistics planning process:

- Provides an overview of the State FMTP Project Selection and Prioritization Process, ensuring that future projects align with the state's strategic goals.
- Offers an overview of State FMTP Eligible Project Types, guiding stakeholders in identifying and developing projects that meet state criteria.
- Presents a comprehensive list of the existing FMTP Roadway Projects and FMTP Railroad Projects, serving as a reference for ongoing and planned initiatives.
- Includes a list of the Florida MPO Advisory Council's Freight Priority Program (FPP) projects for 2021 and 2022, showcasing the most recent freight priorities.
- Gives an overview of the D1 FMTP's Alignment with the Florida Transportation Plan (FTP) and the State FMTP Objectives, demonstrating how the district-level plan supports and complements the state's vision.

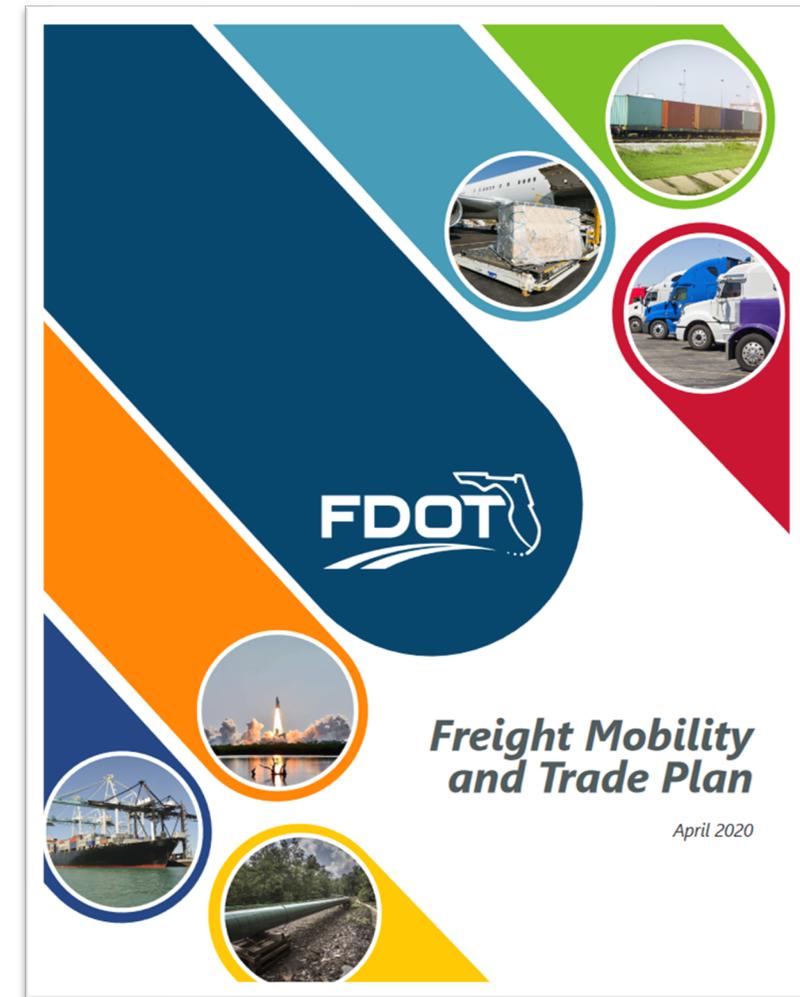
Implement the FMTP



Implementation Guide

The State FMTP is a comprehensive plan identifying freight transportation facilities critical to the state's economic growth and guiding multimodal freight investments. The D1 FMTP update provides a connection and coordination with the State FMTP. The connection between the D1 FMTP and the Statewide FMTP can be understood in the following ways:

- 1. Alignment of Objectives:** The D1 FMTP and the State FMTP aim to improve freight transportation and support economic growth within their respective jurisdictions. The D1 FMTP Update seeks to ensure that the regional plan aligns with the statewide plan's objectives and priorities.
- 2. Coordination and Collaboration:** The D1 FMTP Update is designed to coordinate with the State FMTP by considering the statewide plan's findings, recommendations, and priority projects. This coordination ensures that regional efforts consistently complement the statewide strategies for enhancing freight mobility.
- 3. Shared Data and Resources:** The D1 FMTP and the State FMTP rely on similar data sources and resources for their analyses, such as the US Census, state and federal agencies, and industry associations. By coordinating the D1 FMTP Update with the State FMTP, planners and engineers can better use available data and resources to address freight mobility challenges and regional opportunities.
- 4. Priority Freight Projects:** The D1 FMTP update includes a list of priority freight projects in the region, in line with the State FMTP's guidance on multimodal freight investments. By aligning the regional priority projects with the statewide plan, the D1 FMTP update ensures that the most critical projects receive the necessary attention and support from planners and decision-makers at both the regional and state levels.
- 5. Consistency in Planning and Implementation:** The connection between the D1 FMTP and the State FMTP ensures that regional and statewide efforts are consistent in terms of planning, implementation, and performance measurement. This consistency helps to streamline the process of planning and implementing freight mobility improvements, making it easier for planners and engineers to address the unique needs and challenges of their respective regions while staying aligned with the broader statewide objectives.



FMTP Project Selection and Prioritization Process

FDOT's project prioritization and selection process for the State FMTP includes several steps based on guiding principles emphasizing objectivity, consistency, data-driven decision-making, transparency, and flexibility. A call for projects occurs annually and is divided into three main steps:

Step 1

Identification of Projects (Tier 3)

The process starts with a call for freight projects by the FRO. The request is sent to FDOT Districts, MPOs, local jurisdictions, the FLFAC, the Florida MPO Advisory Council, and other freight stakeholders. FRO also conducts a statewide data-driven analysis of issues and needs to identify projects. The Tier 3 Needs List is compiled based on this analysis and input from all involved parties.

Step 2

Project Classification and Funding Eligibility Screening (Tier 2):

FRO screens the Tier 3 Needs List, advancing committed projects to the Investment Plan. Projects with significant potential as federal discretionary grant contenders are grouped in a portfolio and advanced to the Investment Plan when funded. The remaining projects are screened for NHFP funding eligibility, resulting in a Tier 2 Needs List. These projects are further screened using the FRO policy framework and must align with specific funding and implementation criteria.

Projects on the Tier 2 Needs List undergo a qualitative and quantitative evaluation. An eligible freight project must support one or more of the state's freight objectives identified in the FMTP. FDOT uses multiple data sources, freight performance metrics, and input from the FLFAC and the freight industry to evaluate the current freight network's ability to meet FMTP objectives. Projects are given a quantitative and qualitative score corresponding to each objective. A weighted average score is computed using weights determined by the FLFAC.

Step 3

Qualitative and Quantitative Evaluation (Tier 1):

Projects are then ranked by their total score and discussed in an internal FDOT coordination process. They are categorized into priority groups of high, medium, and low. The priority projects are considered for potential NHFP funding annually. Freight projects already programmed in years one through five of the FDOT Work Program are reviewed and validated annually for purpose, need, cost, and timing. Projects with significant changes may be removed from the list. The preliminary prioritization results of existing unfunded freight projects are refined as part of the next funding cycle.



FMTP Eligible Project Types

The State FMTP's Project Eligibility Requirements are summarized as follows:

1. Projects must adhere to the guiding principles of being objective, consistent, data-driven, and transparent while maintaining flexibility to align with diverse freight system needs.
2. Projects must meet the FRO Project Screening Policy requirements in order to be considered for NHFP funding.
3. Key criteria for FRO-funded projects include:
 - NHFP fund allocation not exceeding \$20 million per project per year.
 - Projects must be ready to implement within 36 months and completed within 6 years.
 - Projects must be located on the National Highway Freight Network.
 - Projects must clearly identify the need(s) and develop a business case justifying their selection.

The overall process is designed to be repeatable and adaptive to reflect changing short-term and long-term industry needs. Stakeholders should stay up-to-date with any policy changes, guidelines, or funding eligibility criteria to ensure their projects align with current requirements. Additionally, it's crucial to collaborate with FRO and other modal offices to determine the appropriate timing and programming of specific freight projects to achieve the best possible outcomes.

4. Eligible project types under the FRO Project Screening Policy include:

- Truck parking facilities (as were eligible under Map-21 section 1401)
- Real-time traffic, truck parking, roadway condition, and multimodal transportation information systems
- Intelligent transportation systems that would increase truck freight efficiencies inside the boundaries of intermodal facilities
- Additional road capacity to address highway freight bottlenecks
- Construction, reconstruction, rehabilitation, acquisition of real property (including land relating to the project and improvements to land), construction contingencies, acquisition of equipment, and operational improvements directly related to improving system performance
- Development phase activities including planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering and design work, and other preconstruction activities
- Geometric improvement to interchanges and ramps
- A highway or bridge project to improve the flow of freight on the National Highway Freight Network (beyond those scopes already described)
- Any other surface transportation project to improve the flow of freight into, or out of, one of the following facilities: Public or Private freight rail facilities; Public or Private water facilities (including ports); intermodal facilities
- ITS or other technology to improve the flow of freight
- Rail-Highway Grade separation
- Truck only lanes

Statewide FMTP Tier 1 Roadway Projects

FDOT’s largest share of transportation projects address roadway needs which improve both congestion and freight activity. According to the Statewide FMTP, 214 highway capacity projects (71%) totaling \$2.26 billion dollars (75%) make up the majority of project across all modes within the Five-Year Work Program. A similar story is found examining SIS projects where there are 145 highway projects (74%) totaling \$6.12 billion (81%) that make up most of all SIS projects across all modes. The Statewide FMTP’s performance and conditions sections acknowledge this as 12 of its 17 (71%) System Performance Measures address roadway concerns. Here is list of all State FMTP Highway Projects in D1.

The following table shows all Tier 1 roadway projects, specifically for District 1, that received a Tier 1 status during the 2020 Statewide FMTP prioritization process :

Project Name	Work Type	Project Name	Work Type
I-4 at US-27/SR-25	Highway Capacity	I-4 at SR 570 / Polk Parkway (Eastern End)	Modify Interchange
I-4 at County Line Rd.	Modify Interchange	I-75 @ CR769/Kings Highway	Modify Interchange
I-4 at SR 539	Modify Interchange	I-75 @ CR77/Harbor View	Modify Interchange
I-4 at SR 546 / Memorial Blvd.	Modify Interchange	I-75 @ US17/SR35	Modify Interchange
I-4 at SR 570 / Polk Parkway (Western End)	Modify Interchange	I-75 at Bonita Beach Rd.	Modify Interchange
I-4 at US 27 / SR 25	Modify Interchange	I-75 at Corkscrew Rd.	Modify Interchange
I-4 at US 98 / SR 35 / 700	Modify Interchange	I-75 at CR 769 / Kings Highway	Modify Interchange
I-75 @ North Jones Loop Rd	Modify Interchange	I-75 at CR 896 / Pine Ridge Rd.	Modify Interchange
I-75 at Alico Rd.	Modify Interchange	I-75 at I-275	Modify Interchange
I-75 at Daniels Parkway	Modify Interchange	I-75 at Jacaranda Blvd.	Modify Interchange
I-75 at Laurel Rd.	Modify Interchange	I-75 at Lockett Rd.	Modify Interchange
I-75 at SR 82	Modify Interchange	I-75 at Moccasin Wallow Rd.	Modify Interchange
I-75 at US 17 / SR 35	Modify Interchange	I-75 at SR 681	Modify Interchange
US 27 at US 17 / 92	Modify Interchange	I-75 at SR 78	Modify Interchange
I-4 at Socrum Loop Rd.	Modify Interchange	I-75 at SR 80	Modify Interchange
I-4 at SR 33	Modify Interchange	I-75 River Rd/ CR 777	Modify Interchange
		US 27 (Palm Beach / Hendry County Line)	Freight Capacity

Source: FMTP Technical Memorandum #6, Project Prioritization and Selection (2020)

Statewide FMTP Tier 1 Railway-Highway Grade Separation Projects

Railroad projects, specifically railway-highway grade separation projects, involve constructing or improving infrastructure to separate railway tracks from highways. The primary goal of these projects is to improve safety, reduce congestion, and minimize conflicts between rail and road traffic. Within the State FMTP, all grade-crossing projects are evaluated separately using a specific prioritization scoring methodology called the "Systematic Evaluation and Prioritization of Rail-Highway Grade Separation." This approach, which the FRO office developed, ensures that the unique factors and requirements of railway-highway grade separation projects are properly considered in the evaluation and prioritization process. The methodology helps FDOT objectively assess these projects based on factors relevant to railway-highway grade separations, such as safety improvements, traffic flow enhancements, and reduction of conflicts between rail and road traffic.

The following table shows all Railway –Highway Grade Separation projects that received a Tier 1 status during the 2020 Statewide FMTP prioritization process in District 1:

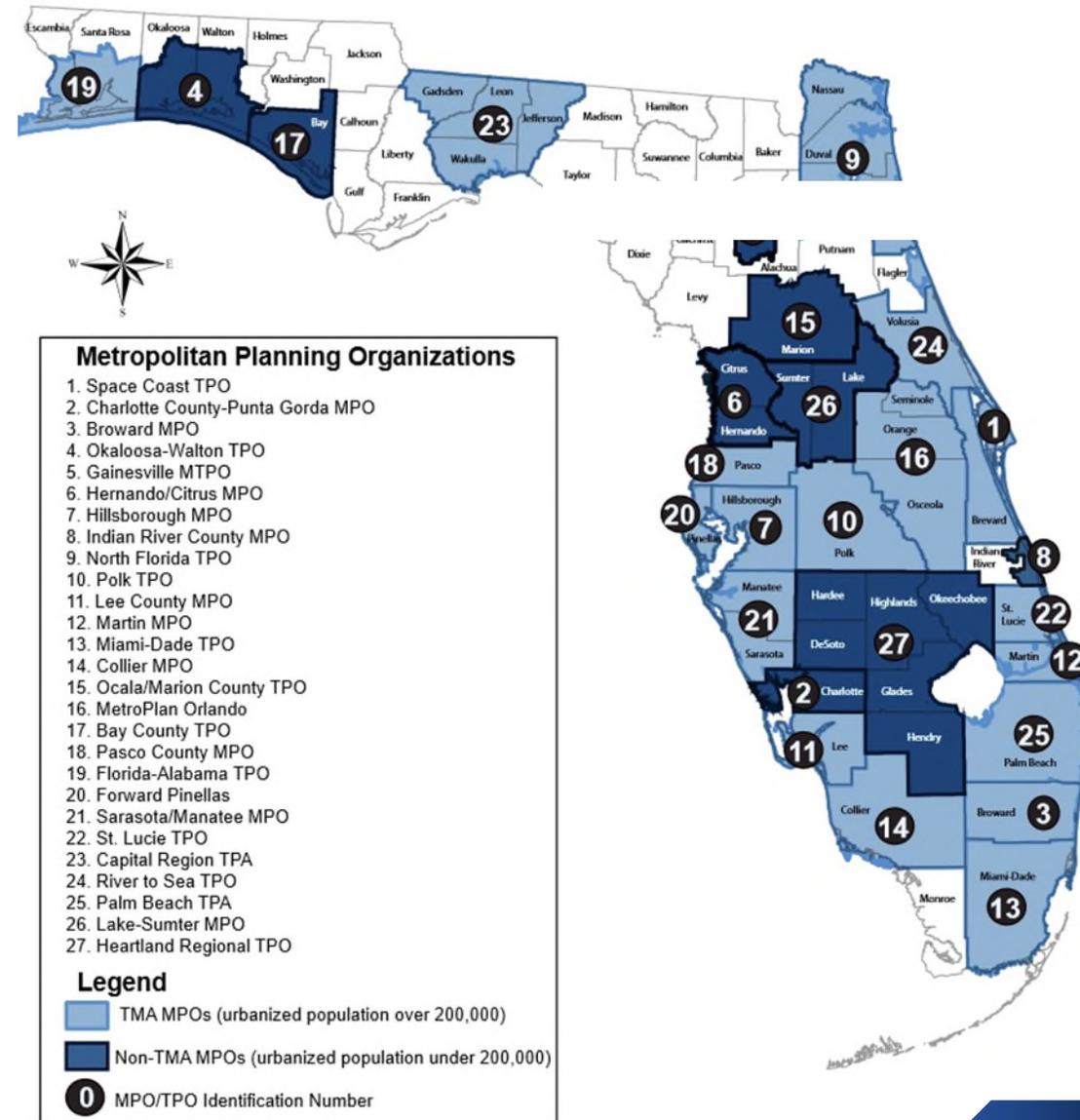
FRA Crossing ID	Project Name
624304R	CSX at County Line Rd at US 92
908367H	CSX Transportation at SR 60 (Mosaic)
624525T	CSX Transportation, SR 60 at Nichols Road (West of Mulberry)
623082F	CSXT at SR 655 / Recker Highway
6245419N	CSXT at SR 60 (West of Lake Wales)
628062L	US 441/Parrot Ave
625426Y	CSXT at SR 60 W Lk Wales, Central Ave
622866E	CSX Transportation at Knights Station Rd (West of Kathleen Rd)
624508C	CSX Transportation at Armour Road South of SR 60

Source: FMTP Technical Memorandum #6, Project Prioritization and Selection (2020)

Florida MPO Advisory Council

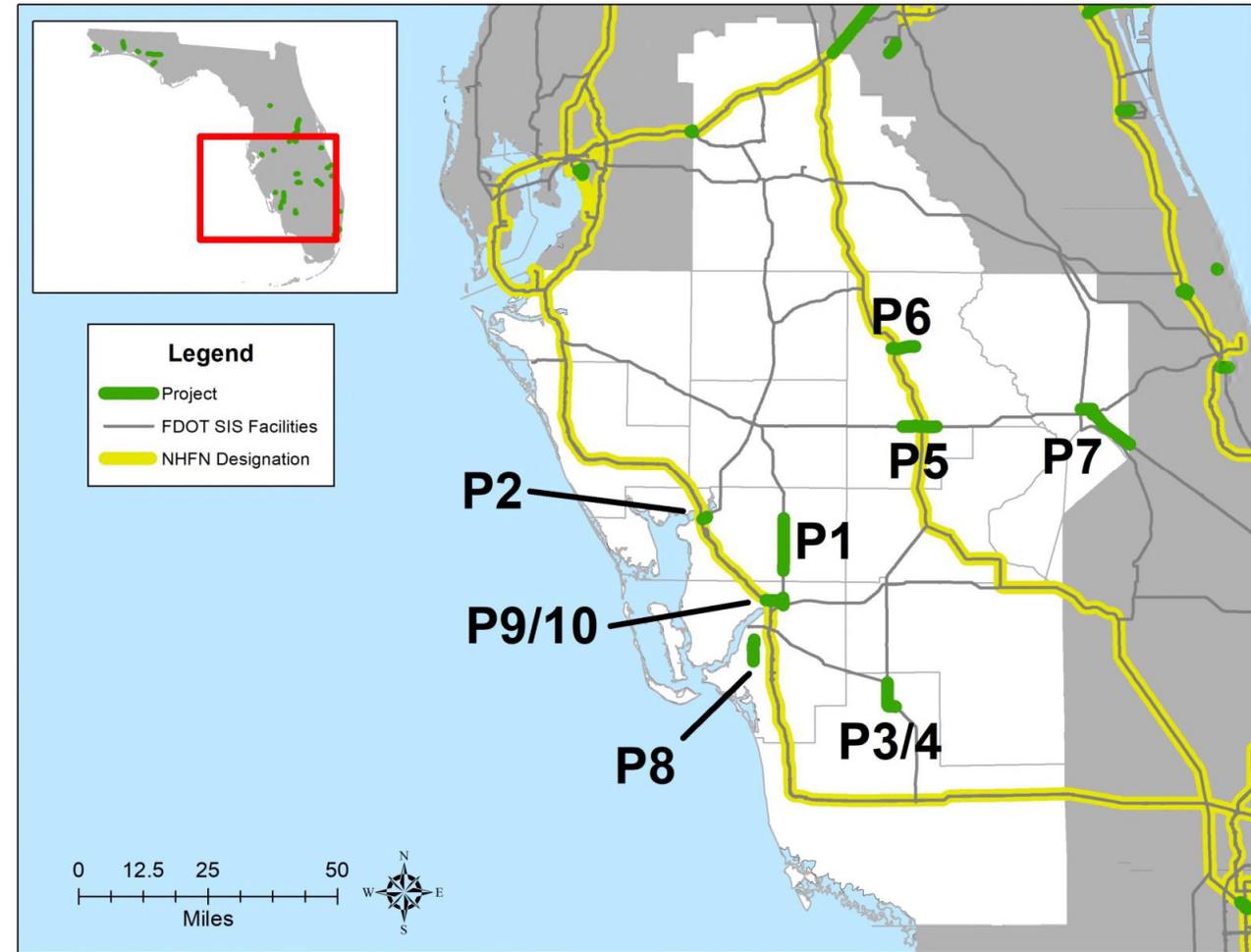
The Florida Metropolitan Planning Organization Advisory Council (MPOAC) is a statewide transportation planning and policy organization created by the Florida Legislature by Florida Statute Section 339.175(11). MPOAC aids Florida MPOs/TPOs in carrying out the urbanized area transportation planning process by serving as the principal forum for collective policy discussion amongst the different regions in the State. The MPOAC has a 27-member board of local elected officials from and a Staff Directors' Advisory Committee that belong to the respective MPOs/TPOs across the State. The MPOAC establishes a forum for a Policy and Technical Subcommittee, a Freight and Rail Committee, and other committees. The Policy and Technical Subcommittee annually prepares legislative policy positions and develops initiatives to be advanced during Florida's legislative session. The MPOAC actively participates in the activities of the national Association of MPOs (AMPO) and the National Association of Regional Councils (NARC) in Washington, DC and works with other stakeholder groups to help shape state and national policy regarding metropolitan transportation issues.

The Freight and Rail Committee prepares an annual list of projects known as the Freight Priorities Program. The Freight Priorities Program provides the MPOs/TPOs in Florida with the opportunity to identify their highest priority freight projects and use the MPOAC as a united voice to promote and position these projects for future funding. While these priorities may not align directly with FDOT priorities, they are important to their respective regions and are a great way for FDOT to gain insight into the regional MPO/TPO preferences. The following two pages show the priorities of the MPOAC in 2022 and 2021, respectively.



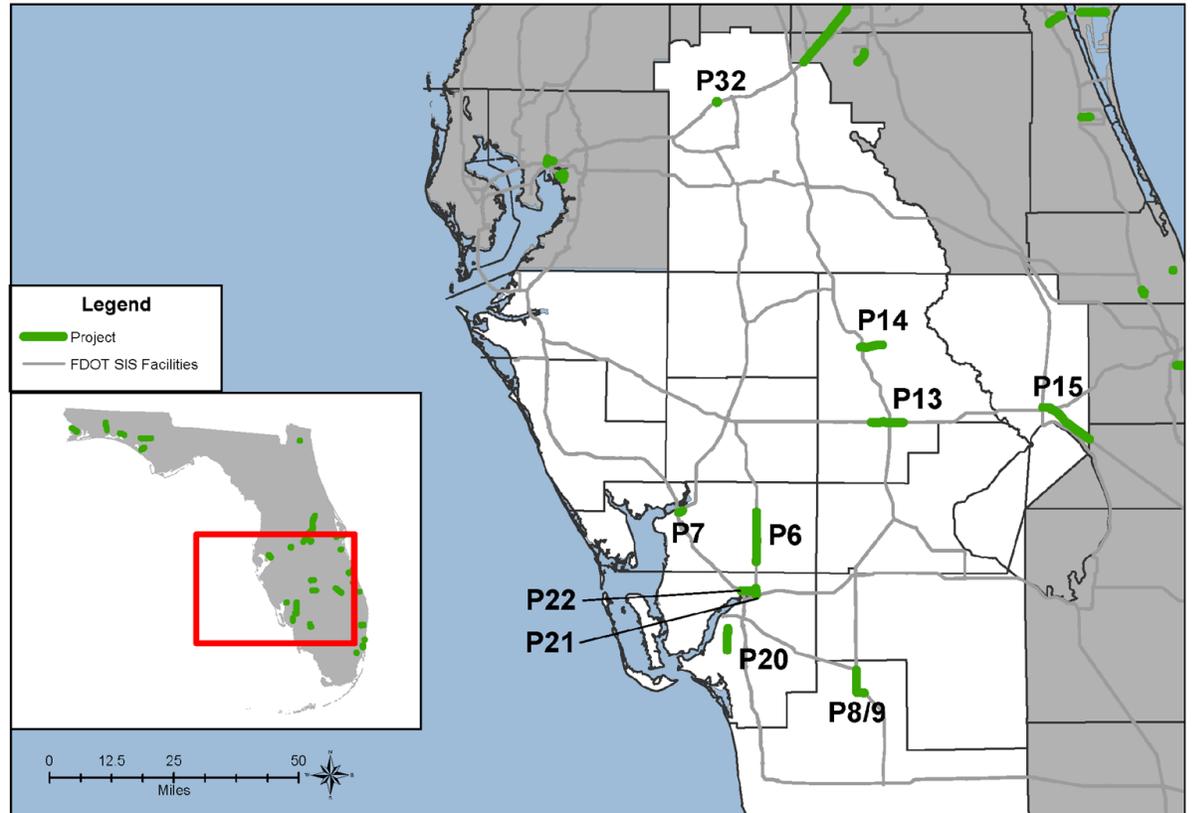
Florida MPO Advisory Council | Freight Priority Projects (2022)

Map ID	Project Name	County	List Category
Charlotte County-Punta Gorda MPO			
P1	Road Widening from Cook Brown Rd to CR 74	Charlotte	Supplemental Freight Priority*
P2	Copley Ave to CR 74 (Bermont Rd)	Charlotte	Freight Priority
Collier MPO			
P3	SR 29 from CR 846 to N of New Market Road N	Collier	Freight Priority
P4	SR 29 from N of New Market Rd to SR 82 N	Collier	Freight Priority
Heartland Regional TPO			
P5	SR 70 From Jefferson Ave To CR 29	Highlands	Freight Priority
P6	US 98 from US 27 to East of Airport Road	Highlands	Freight Priority
P7	SR 710 from US 441 to Martin Co/L add Lanes to SR 710, including New Road from SR 70 to US 441	Okeechobee	Freight Priority
Lee County MPO			
P8	Metro Pkwy Widening from Daniels Pkwy to Winkler Ave	Lee	Freight Priority
P9	SR 31 from SR 80 to SR 78	Lee	Freight Priority
P10	SR 78 Widening from SR 31 to I-75 and SR 78 Interchange Improvements	Lee	Freight Priority



Florida MPO Advisory Council | Freight Priority Projects (2021)

Map ID	Project Name	County	List Category
Charlotte County – Punta Gorda MPO			
6	Road Widening from Cook Brown Rd to CR 74	Charlotte	Other Freight Priority
7	Copley Ave to CR 74 (Bermont Rd)	Charlotte	Other Freight Priority
Collier MPO			
8	SR 29 from CR 846 to N of New Market Road N	Collier	Freight Priority
9	SR 29 from N of New Market Rd to SR 82 N	Collier	Freight Priority
Heartland Regional TPO			
13	SR 70 From Jefferson Ave to CR 29	Highlands	Freight Priority
14	US 98 from US 27 to East of Airport Road	Highlands	Freight Priority
15	SR 710 from US 441 to Martin Co/L Add Lanes to SR 710, including new road from SR 70 to US 441	Okeechobee	Freight Priority
Lee County MPO			
20	Metro Pkwy Widening from Daniels Pkwy to Winkler Avenue	Lee	Freight Priority
21	SR 31 from SR 80 to SR 78	Lee	Freight Priority
22	SR 78 Widening from SR 31 to I 75 and SR 78 Interchange Improvements	Lee	Freight Priority
Polk TPO			
32	I-4 (SR 400) at SR 33 Interchange Modification	Polk	Freight Priority



Potential Tier 3 Projects for District 1 Freight Priorities

The following table shows a list of potential freight projects that could happen within District 1. The truck parking projects were a direct result of District 1s Truck Parking White Paper which consisted of:

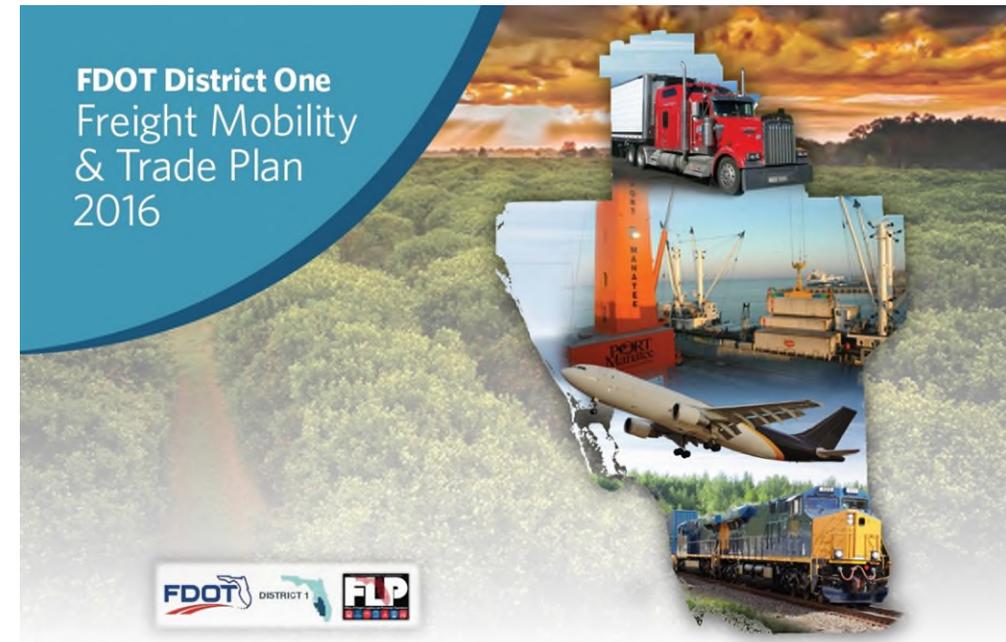
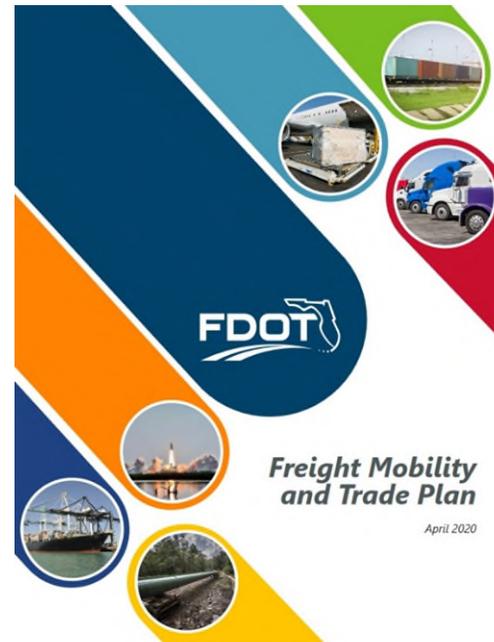
- Introduction & Background
- Supply & Demand Review
- Truck Parking Opportunities
- Truck Parking Facility Gap Analysis
- Policy & Engagement Opportunities
- Opportunities For Integration of Technology

Potential Tier 3 Freight Projects for D1	
Project Name	
Jones Loop Road Truck Parking	
Daniels Parkway Truck Parking	
River Road Truck Parking	
Concrete intersection at US 27 / US 98 and West Sun Pure Road	
Port Manatee truck parking facility	
Drainfield road capacity improvements	
Rural rail crossing safety study	
District freight bottleneck study	
Central Florida ILC growth and capability study	
Airglades (US 27 & Flaghole Rd) – Concrete Intersection	



District 1 FMTP Alignment with the FTP & State FMTP Objectives

To ensure that the D1 FMTP stays in alignment with the 2022 FTP and the 2020 Statewide FMTP, actionable goals were developed in a manner that are directly congruent each plan. The 2016 D1 FMTP was also consulted as a reference point to make sure older ideas and concepts were carried through in this update. The following section are tables that can be easily followed with stakeholders and times lines established so that results can be monitored and achieved.



District 1 FMTP Alignment with the FTP & State FMTP Objectives

FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Safety and security for residents, visitors, and Businesses	1. Leverage multisource data and technology to improve freight system safety and security	1.1 Identify commercial vehicle high-incident roadway segments & intersections. Develop countermeasures to improve operations and safety	1.1.1 Conduct data analysis to identify commercial vehicle high-incident segments and intersections	FDOT TDA, FDOT Safety Office	Semi-Annually
			1.1.2 Meet periodically with freight stakeholders to determine their areas of concern for freight movements	Freight Stakeholders	Semi-Annually
			1.1.3 Prioritize high-incident segments and intersections, determine feasibility, find funding to plan, design, and construct solutions.	FDOT TDA, FDOT Safety Office, Florida Highway Patrol	Annually
		1.2 Increase truck parking capacity & improve safety at existing truck parking locations	1.2.1 Designate a truck parking champion	FDOT D1	Within 1 Year
			1.2.2 Update truck parking study	FDOT D1	3 to 5 Years
			1.2.3 Implement Policy, Partnership, & Technological Solutions from the D1 Truck White Paper	FDOT D1, MPOs, FDOT Central Office, Florida Highway Patrol	3 to 5 Years
			1.2.4 Determine all safety improvement needs at all public truck parking facilities, prioritize those safety improvements, & then work to fund improvements	FDOT Safety Office, Florida Highway Patrol	3 to 5 Years
			1.2.5 Promote TPAS at private facilities & incorporate its utilization into the system	FDOT Central Office, FDOT D1, Florida Highway Patrol	Continuous
			1.2.6 Develop a Truck Parking Improvement Program to fund truck parking projects	FDOT Central Office, FDOT D1	5 to 10 Years
		1.3 Florida Strategic Highway Safety Plan (SHSP)	1.3.1 Promote Commercial Vehicle Enforcement Program	FDOT D1, Florida Highway Patrol	Continuous
			1.3.2 Promote educational and outreach efforts to the public about driving safely around Commercial Motor Vehicles	FDOT D1, Florida Highway Patrol	Continuous
			1.3.3 Improve response time for responding to emergencies and incidents by focuses	FDOT D1, Florida Highway Patrol	Continuous

District 1 FMTP Alignment with the FTP & State FMTP Objectives

FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Agile, resilient, and quality transportation infrastructure	2. Create a more resilient multimodal freight system	2.1 Develop Freight Resiliency Plan For D1	2.1.1 Develop freight resiliency objectives; define a scope, select relevant transportation asset types, identify regional climate variables	FDOT D1	1 to 3 Years
			2.1.2 Assess vulnerabilities to transportation assets using stakeholder input, desk reviews, and engineering-informed assessments	FDOT D1	1 to 3 Years
			2.1.3 Use multi-criteria and economic analysis to evaluate alternatives.	FDOT D1	1 to 3 Years
			2.2.4 Determine how to incorporate results in decision-making processes such as transportation planning, environmental reviews, design, or asset management	FDOT D1	1 to 3 Years
			2.2.5 Monitor Plan and Update	FDOT D1	Continuous
		2.2 Develop a contingency plan for freight mobility operations & to support disaster relief logistics operations	2.2.1 Utilize FLFAC and MPO FAC stakeholders in D1 to identify the most vulnerable industry stakeholders. Document operational challenges and at-risk assets	FDOT D1, FDOT Office of Emergency Management (OEM), FLFAC, MPO FACs,	1 to 3 Years
			2.2.2 Develop contingency plans for disaster relief operations to ensure vulnerable industry partners can still successfully move freight	FDOT D1, FDOT OEM	1 to 3 Years
			2.3.3 Work with FDOT Central Office to ensure they are aware of these contingency plans	FDOT Central Office, FDOT D1	Continuous
		2.3 Develop an Emergency Management Plan for critical commodities like food or fuel within D1	2.3.1 Develop inventory of D1 critical commodities	FDOT D1, OEM	1 Year
			2.3.2 Develop scenarios for regional events that may disrupt the supply of critical commodities	FDOT D1, OEM	1 to 3 Years
			2.3.3 Develop redundant supply chain lines across adjacent districts	FDOT D1, OEM, Nearby FDOT Districts	1 to 3 Years
			2.3.4 Monitor and update critical commodities, scenarios, and the redundant network as needed.	FDOT D1, OEM, Nearby FDOT Districts	Continuous

District 1 FMTP Alignment with the FTP & State FMTP Objectives

FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Agile, resilient, and quality transportation infrastructure	3. Ensure the Florida freight system is in a state of good repair	3.1 Optimize the functionality, efficiency, and reliability of existing freight systems	3.1.1 Conduct an assessment of local restricted and dedicated freight routes statewide	FDOT D1	1 Year
			3.1.2 Continue to monitor congestion bottlenecks and travel time reliability	FDOT D1, FDOT TDA	Continuous
			3.1.3 Work to identify transportation assets with freight-related maintenance issues. Prioritize assets based on both need and funding. Work to implement solutions to improve performance.	FDOT Office of Maintenance, FDOT D1	Continuous

FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Connected, efficient, and reliable mobility for people and freight	4. Drive innovation to reduce congestion, bottlenecks and improve travel time reliability	4.1 Explore high-utilization freight roadways where ITS and CAV technologies could increase the efficiency and reliability of freight movements	4.1.1 Develop a list of projects that leverages funding for ITS and CAV technologies that will be incorporated into the next Ten-Year ITS Plan.	FDOT D1, Transportation Systems Management and Operations (TSM&O) Program	1 to 2 Years
		4.2 Identify and implement low-cost, operational improvements on the freight system in coordination with the SIS Quick Fix program	4.2.1 Identify low-cost, operational improvements to address truck bottlenecks and truck safety hotspots. Conduct an operational analysis at the highest priority locations and prepare those projects for the SIS Quick Fix Program.	FDOT D1	1 Year

District 1 FMTP Alignment with the FTP & State FMTP Objectives

FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Transportation choices that improve accessibility and equity	5. Remove institutional, policy and funding bottlenecks to improve operational efficiencies and reduce costs in supply chains	5.1 Maximize discretionary grant opportunities focusing on identifying projects & developing a federal grants portfolio	5.1.1 Review all federal grant opportunities for freight and develop an annual anticipatory NOFO schedule	FDOT D1	1 Month
			5.1.2 Maintain list of potential freight projects that could use discretionary funding	FDOT D1	1 Year
			5.1.3 Submit applications to Central Office annually during its call for projects	FDOT D1	Continuous
FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Transportation choices that improve accessibility and equity	6. Improve last mile connectivity for all freight modes	6.1 Identify first/last mile gaps districtwide	6.1.1 Develop a map with ESRI ArcMap Pro that identifies freight hubs and first/last mile gaps	FDOT D1, FDOT TDA	1 Year
			6.1.2 Monitor trends for drone/robot deliveries	FDOT D1	Continuous
			6.1.3 Look for ways to fund first/last mile gap infrastructure projects	FDOT D1	1 Year
		6.2 Curb Management Plan	6.2.1 Develop a curb management plan for urbanized areas	FDOT D1	3 to 5 Years
FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Transportation solutions that strengthen Florida's economy	7. Continue to forge partnerships between the public and private sectors to improve trade and logistics	7.1 Keep ongoing communication going with freight & logistics industries	7.1.1 Hold periodic freight & logistics forums, meetings, and events	FDOT D1, Freight Stakeholders	Continuous
			7.1.2 Attend industry conferences	All Districts	Continuous
		7.2 Truck Driver Employment	7.2.1 Use social media to promote employment opportunities for truck driving career fairs and events	FDOT D1	Continuous

District 1 FMTP Alignment with the FTP & State FMTP Objectives

FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Transportation solutions that strengthen Florida's economy	8. Capitalize on emerging freight trends to promote economic development	8.1 Support CAV freight projects	8.1.1 Document the potential impacts of automated vehicles and infrastructure for freight movements	FDOT D1	1 to 3 Years
			8.1.2 Expand truck parking availability information and signs, and increase data collection efforts	FDOT D1, TSM&O	1 to 3 Years
		8.2 Learn about freight applications for Smart Cities	8.2.1 Study expanded off-hours for freight delivery	FDOT D1	3 to 5 Years
			8.2.2 Study urban same-day delivery	FDOT D1	1 Year
			8.3.3 Study drones and other automated delivery methods	FDOT D1	3 to 5 Years
FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Transportation systems that enhance Florida's communities	9. Increase freight-related regional and local transportation planning and land use coordination	9.1 Determine target areas for attracting and expanding manufacturing, distribution, and other industries that generate and export goods	9.1.1 Analyze Florida industries to determine the level of contribution to empty backhaul	FDOT D1, FDOT TDA	3 to 5 Years
FTP Goal	State FMTP Objective	District 1 Strategies	Action	Stakeholders / Source	Timeframe
Transportation solutions that protect Florida's environment	10. Promote and support the shift to alternatively fueled freight vehicles	10.1 Participate in the FHWA Alternative Fuel Corridor Program	10.1.1 Identify corridors eligible for FHWA Alternative Fuel Program	FDOT D1	1 Year
			10.1.2 Apply for relevant FHWA Grants	FDOT D1, FDOT Grants Administration	Varies

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Section V
USER RESOURCES



The District Freight Coordinators (DFC) are points of contact for collaboration and outreach for statewide, multimodal freight mobility projects. Their primary duty is to conduct outreach efforts and engage with public and private stakeholders within each district. A portion of that outreach includes teaching and informing residents throughout the district about freight transportation and logistics.

Stakeholders are generally familiar with the terminology and references used in logistics, but most of the public is not. The purpose of this guide is to assist readers interested in learning more about the freight and logistics industry and provide guidance or information on policies or programs in the field. There are various sections of information within this guide. The sections consist of a contact information list for FDOT personnel at the state and district levels; a section with links to freight-related documents, policies, and organizations; a reference list defining offices and policies; and a glossary of common terms for freight and transportation logistics.

Many external sources of information provide more in-depth explanations of policies and terminology in this guide. The section provides a simplified resource that describes relevant policies and terms within the field. For further learning assistance, please contact your DFC.

Reference

Logo/Image	Reference Name	Description	Hyperlink
	American Association of State Highway and Transportation Officials (AASHTO)	<p>AASHTO is a nonprofit and nonpartisan association which represents highway and transportation departments within the 50 states, the District of Columbia, and Puerto Rico. All five transportation modes are represented: air, highway, public transportation, rail, and water. The association's primary goal is to foster the development, operations, and the maintenance of the nation's integrated transportation systems through publishing specifications, testing protocols, and developing guidelines utilized in highway design and construction.</p>	www.transportation.org
	Bipartisan Infrastructure Law (BIL)	<p>The BIL is a generational investment in our nation's infrastructure. It makes the largest investment in bridges since the interstate system was built, the largest investment in transit in U.S. history, the greatest investment in passenger rail since the creation of Amtrak, and the largest investment in EV infrastructure in U.S. history.</p> <p>The BIL includes five-year reauthorization (FY22-26) of surface transportation programs and direct advanced appropriations. Total transportation funding in this five-year package is over \$660 billion, including the following over five years:</p> <ul style="list-style-type: none"> • Federal Highway Administration: \$365 billion • Federal Transit Administration: \$107 billion • Federal Railroad Administration: \$102 billion • Federal Aviation Administration: \$25 billion • National Highway Traffic Safety Administration: \$8 billion • Federal Motor Carrier Safety Administration: \$5 billion • Maritime Administration: \$2 billion • Office of the Secretary of Transportation: \$43 billion 	www.transportation.gov/bipartisan-infrastructure-law
	Consolidated Rail Infrastructure and Safety Improvements (CRISI) Grants	<p>The CRISI program is administered by the Federal Railroad Administration (FRA) and provides funding for projects that improve the safety, efficiency, and reliability of passenger and freight rail systems. Eligible projects include track, bridge, and grade crossing improvements, rail line relocation, congestion mitigation, positive train control implementation, and short-line railroad infrastructure enhancements.</p>	https://railroads.dot.gov/grants-loans/competitive-discretionary-grant-programs/consolidated-rail-infrastructure-and-safety-2

Reference

Logo/Image	Reference Name	Description	Hyperlink
	Enterprise Florida	Enterprise Florida is a partnership between state businesses, government leaders, and the official economic development organization for the State of Florida. The mission is to increase economic opportunities by maintaining a well-trained workforce, creating and maintaining quality jobs, and developing globally competitive businesses.	www.enterpriseflorida.com
	Federal Aviation Administration (FAA)	The FAA was previously known as the Federal Aviation Agency until 1966 when the Department of Transportation Act deemed the agency an administration. The FAA manages the nation's airspace to maintain the safest, most reliable, most efficient, and most productive air transportation system throughout the globe.	www.faa.gov
	Federal Highway Administration (FHWA)	FHWA is an agency within the USDOT. It supports state and local governments in designing, constructing, and maintaining the nation's highway system and federally and tribal-owned lands. FHWA is responsible for ensuring that the nation's roads and highways continue to be the safest and most technologically sound in the world for the movement of people, the military, and goods.	highways.dot.gov
	Federal Railroad Administration (FRA)	The FRA was created by the Department of Transportation Act of 1966. The FRA's mission is to enable the most efficient, safe, and reliable movement of goods and people to maintain a strong America. The guiding principles are integrity, excellence, transparency and accountability, innovation, engagement, and safety.	railroads.dot.gov
	Florida Chamber of Commerce	The Florida Chamber of Commerce is an organization that advocates for private businesses within Florida. Over the Florida Chamber's history, the overarching goal has been to encourage a business-friendly climate that allows job creators to create private-sector jobs and contribute to the state's economy.	www.flchamber.com
	Florida Department of Agriculture and Consumer Services	The Florida Department of Agriculture and Consumer Services promotes and supports Florida's agriculture, protects the environment, safeguards the state's consumers, and ensures the safety & wholesomeness of food. The department works in various ways, such as preserving livestock, honeybees, and crop plants from pests and disease, assisting in safely and properly using pesticides, and fighting wildfires to protect lives and property.	www.fdacs.gov

Reference

Logo/Image	Reference Name	Description	Hyperlink
	Florida Department of Economic Opportunity (DEO)	<p>The DEO promotes economic opportunities for Floridians through a successful workforce, community, and various economic development strategies. The DEO's purpose is to assist the Governor in working with the legislature, business leaders, agencies, and economic development professionals to create and implement policies and strategies that promote said economic opportunities for Floridians.</p>	www.floridajobs.org
	Florida Department of Economic Opportunity's Strategic Plan for Economic Development	<p>The DEO's Strategic Plan for Economic Development is a five-year (2018-2023) statewide strategic plan to sustain Florida's economy. The Plan has three goals: to lead the nation in resilient, sustainable economic growth & prosperity; to lead the nation in global competitiveness for talent, business, innovation, and tourism; and, to lead the nation in quality of life and places for residents, communities, and visitors.</p>	https://www.floridajobs.org/office-directory/division-of-strategic-business-development/florida-strategic-plan-for-economic-development
	Florida Department of Transportation (FDOT)	<p>FDOT is an executive agency that reports directly to the Governor. FDOT's primary responsibility is coordinating the planning, development, maintenance, and regulations of Florida's transportation system and ensuring all components are compatible.</p>	www.fdot.gov

Logo	Reference Name	Description	Hyperlink
	<p>FDOT Modal Development Office (MDO)</p>	<p>The FDOT MDO oversees and coordinates the development, implementation, and maintenance of various modal transportation systems across Florida. The Office is organized into five divisions, each focused on a specific mode of transportation:</p> <ul style="list-style-type: none"> • Aviation Office: This division is responsible for planning, developing, and managing Florida's aviation system, including commercial airports, general aviation airports, and other aviation facilities. The division works closely with the Federal Aviation Administration (FAA) and other stakeholders to ensure the state's aviation system's safety, efficiency, and sustainability. • Freight and Rail Office (FRO): Formerly known as the Freight and Multimodal Operations (FMO), this division focuses on planning, developing, and coordinating freight and rail transportation in Florida. This includes working with freight rail operators, public and private stakeholders, and local, state, and federal partners to enhance the efficiency and reliability of freight movement throughout the state. The division also oversees passenger rail services, coordinating with agencies such as Amtrak and the Florida High-Speed Rail system. • Public Transit Office: This division oversees and supports the planning, development, and operation of public transportation services in Florida. This includes working with transit agencies, local governments, and other partners to improve the accessibility, efficiency, and effectiveness of public transit systems, such as buses, light rail, and commuter rail. • Seaport Office: This division is responsible for planning, developing, and managing Florida's seaports, ensuring their efficient operation and competitiveness in the global maritime industry. The division collaborates with port authorities, private sector partners, and other stakeholders to support the growth and diversification of Florida's maritime economy. • Spaceport Office: This division focuses on the development and management of Florida's space transportation infrastructure, including launch facilities, payload processing facilities, and other spaceport-related assets. The division works closely with the aerospace industry, federal agencies such as NASA, and other stakeholders to promote the growth and competitiveness of Florida's space industry. 	<p>www.fdot.gov/multimodal</p>

Reference

Logo/Image	Reference Name	Description	Hyperlink
	FDOT Office of Policy Planning (OPP)	<p>The OPP oversees various planning, policy, and research activities to advance Florida's statewide transportation system. One of the many functions of the OPP is to develop, publish, and distribute the FTP every five years.</p>	https://www.fdot.gov/planning/policy/default.shtm
	Florida Freight Advisory Committee (FLFAC)	<p>The FLFAC is a committee comprising public and private sector representatives with expertise in freight transportation. This committee plays an advisory role, providing input on freight-related plans, policies, and investments in Florida. The Florida Freight Advisory Committee (FLFAC) is charged with:</p> <ul style="list-style-type: none"> • Advising the State on freight-related priorities, issues, projects, and funding needs; • Serving as a forum for discussion of State decisions affecting freight transportation; • Communicating and coordinating regional priorities with other organizations; • Promoting the sharing of information between the private and public sectors on freight issues; and • Participating in the development of the State's Mobility and Trade Plan. <p>The FLFAC was developed according to guidance provided in federal transportation legislation, including the Moving Ahead for Progress in the 21st Century (MAP-21) and the Fixing America's Surface Transportation (FAST) Act.</p>	https://www.fdot.gov/flfac
	Florida Metropolitan Planning Organization Advisory Council (MPOAC)	<p>The MPOAC is a statewide organization representing the collective interests of Florida's Metropolitan Planning Organizations (MPOs). It provides a forum for sharing best practices and addressing common issues related to transportation planning. The MPOAC has a standing Freight Committee with the following objectives</p> <p>Vision Statement - Foster the development through the MPOAC of a comprehensive integrated, coordinated multimodal freight network for Florida.</p> <p>Mission Statement - To be the collective forum for the development and promotion of actionable ideas that foster and support sound goods movement planning and initiatives for all Florida MPOs.</p>	https://www.mpoac.org/

Reference

Logo/Image	Reference Name	Description	Hyperlink
	Freight Mobility and Trade Plan (FMTP)	The FMTP was approved in 2012 and updated in 2020 by Florida House Bill 599, which requires FDOT to develop a statewide freight plan. Due to the FMTP's modular design, the document can be updated regularly. The FMTP is a comprehensive plan that identifies the freight transportation facilities critical to Florida's economic growth and guides multimodal freight investments in the state.	www.fdot.gov/rail/plandev/freight-mobility-and-trade-plan
	Highway Trust Fund (HTF)	The HTF is a United States transportation fund where federal fuel tax revenue is deposited. These funds finance most of the federal government spending for the Federal Aid Highway Program and the Mass Transit Program.	www.fhwa.dot.gov/highwaytrustfund/
	Infrastructure for Rebuilding America (INFRA) Grants	The INFRA program, also administered by the USDOT, is designed to fund highway and freight projects of national and regional significance. This program focuses on projects that enhance safety, economic competitiveness, and environmental sustainability while also addressing the needs of rural areas. Eligible projects include highway, bridge, and tunnel improvements, intermodal freight connectors, and intelligent transportation systems.	www.transportation.gov/grants/infra-grants-program
N/A	National Highway System (NHS)	The USDOT developed the NHS in coordination with states, local officials, and MPOs. The NHS includes the Interstate Highway System and other roads vital to the nation's economy, defense, and mobility.	www.fhwa.dot.gov/planning/national_highway_system/
	Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants	Formerly known as BUILD and TIGER grants, RAISE grants are administered by the US Department of Transportation (USDOT). This program supports surface transportation projects, including highways, bridges, public transportation, rail, ports, and intermodal facilities. Projects demonstrating innovation in safety, environmental sustainability, equity, and economic vitality are prioritized.	www.transportation.gov/RAISEgrants
	Strategic Intermodal System (SIS)	The SIS is Florida's high-priority network of transportation facilities, such as commercial service airports, spaceport, deep-water seaports, freight rail terminals, passenger rail and intercity bus terminals, rails corridors, waterways, and highways, which are vital to the state's economy and mobility. The SIS is a primary focus for implementing the FTP.	www.fdot.gov/planning/sis/default.shtm

Reference

Logo/Image	Reference Name	Description	Hyperlink
	SunTrax	<p>SunTrax is a large-scale, cutting-edge transportation technology testing facility in Polk County, Florida. This innovative facility is a joint project between the Florida Department of Transportation (FDOT) and the Florida Polytechnic University. SunTrax spans 475 acres and is dedicated to researching, developing, and testing emerging transportation technologies in safe and controlled environments.</p>	www.suntraxfl.com
	Transportation Research Board (TRB)	<p>TRB is a part of the National Academies of Sciences, Engineering, and Medicine. The TRB provides leadership in transportation improvements and innovation through trustworthy information exchange, research, and advice regarding all transportation modes. Over 140 research studies are published annually, and over 300 research projects are managed.</p>	www.nationalacademies.org/trb/transportation-research-board
	United State Department of Transportation (USDOT)	<p>USDOT is a federal Cabinet department responsible for overseeing and regulating transportation in the United States. Established in 1966 by an act of Congress and officially beginning operations in 1967, the USDOT aims to ensure a safe, efficient, and modern transportation system that meets the nation's vital interests and enhances the quality of life for the American people. Headquartered in Washington, DC, the USDOT is led by the Secretary of Transportation, who is appointed by the President of the United States and confirmed by the Senate. The Department consists of several operating administrations and offices, each focusing on different aspects of transportation:</p> <ul style="list-style-type: none"> • Federal Aviation Administration (FAA) • Federal Highway Administration (FHWA) • Federal Motor Carrier Safety Administration (FMCSA) • Federal Railroad Administration (FRA) • Federal Transit Administration (FTA) • Maritime Administration (MARAD) • National Highway Traffic Safety Administration (NHTSA) • Pipeline and Hazardous Materials Safety Administration (PHMSA) • Saint Lawrence Seaway Development Corporation (SLSDC) • Office of the Secretary 	www.transportation.gov

Glossary

Accessibility – Freight accessibility relates to the ability of industries to receive materials from their suppliers and move goods to their customers.

Annual Average Daily Traffic (AADT) – AADT is the annual average of two-way daily traffic volume. It represents the total traffic on a roadway for the year divided by 365.

Automobile (auto) – An automobile is a four-wheeled motor vehicle used for transportation. An automobile is designed to carry no more than 12 persons and has a gross vehicle weight rating of no more than 8,500 pounds. Multipurpose passenger vehicles and light duty trucks are included.

Average Annual Daily Truck Traffic (AADTT) – AADTT is the volume of truck traffic in a single 24-hour period during a data-reporting year.

Backhaul – Backhaul is the return of cargo or freight via transport from the secondary to the primary location. Backhauling eliminates or reduces empty truck miles and saves the carrier in overhead costs.

Barge – A barge is a flat-bottomed vessel utilized for carrying freight through inland waterways. A barge typically does not have a self-propelling mechanism; a tow or tugboat is used to pull a barge.



Bonded (Freight/Warehouse) – Bonded freight are shipments that have not been released at the border and instead has moved inland to obtain release. Bonded warehouses are customs-controlled buildings where imported, dutiable shipments are stored, manipulated, or can undergo manufacturing operations without duty payment for up to five years from importation date.

Bottleneck - A section of a highway, rail network, or port that experiences operation delays due to a localized constriction. A bottleneck is distinguished from congestion because it occurs in a secondary section of a facility rather than the entire facility.

Break Bulk Cargo – This type of cargo has individually packaged items that are loaded onto ships without being stored in a larger shipping container. Examples of break bulk cargo include coffee beans, logs, and pulp. Packaging units used include bags, hazmat boxes, crates, and pallets.

Freight Broker – A freight broker, or broker, acts as an intermediary between the shipping companies and the carriers. The broker facilitates communication between the two parties and assures that the delivery runs smoothly and on time.

Bulk Cargo – This cargo type is loaded loosely and directly onto a transport vessel without any packaging. Examples of bulk cargo include coal, grain, and hazardous & non-hazardous, non-edible liquids.

Capacity - The physical facilities, personnel and process available to meet the product of service needs of the customers. Capacity generally refers to the maximum output or producing ability of a machine, a person, a process, a factory, a product, or a service. Capacity for the transportation network represents the maximum number of vehicles that reasonably can be expected to traverse a point or a uniform section of roadway during a given period under prevailing conditions

Carrier – A carrier is a trucking company or an individual owner-operator that transports goods for others.

Centerline Miles – Centerline miles measure the length of a road's right-of-way corridor in miles along the center of the overall roadway alignment.

Commodity Flow Survey (CFS) – The CFS is a shipper-based survey which produces data on the movement of goods throughout the United States. The USDOT, state DOTs, and metropolitan planning organizations (MPOs) use the data to assess the demand for transportation facilities and services, environmental concerns, energy use, and safety risks. The survey was initiated in 1993, began in 1997, and has been conducted every five years.

Class 1 Railroads – Class 1 railroads exceed an annually adjusted revenue set by the Surface Transportation Board. Seven existing Class 1 railroads exist in the United States: BNSF, Canadian National, Canadian Pacific, CSX Transportation, Kansas City Southern, Norfolk Southern, and Union Pacific. CSX Transportation is the largest Class 1 railroad in Florida.

Classification Yard – A classification yard is a railroad yard that separates railroad cars into one of several tracks. Cars are taken to a track and sent through a ladder onto classification tracks. The three types of classification yards are flat-shunted yards, hump yards, and gravity yards.

Commodity – A commodity is a good utilized in commerce that is interchangeable with other goods of similar types. A raw material used to manufacture a finished good is usually called a commodity.

Common Carrier – A common carrier is a person or commercial enterprise open to the public that transports goods or passengers for a fee. Examples include a ship-owner, airlines, or taxi service.

Compressed Natural Gas (CNG) – Natural gas is an odorless and gaseous mixture of hydrocarbons that accounts for about 30 percent of energy in the United States. Natural gas can be a reliable alternative fuel for natural gas vehicles, but only 0.20 percent is used as transportation fuel.

Congestion (vehicular) – Congestion is when there is an excess of vehicles on a roadway resulting in slower speeds than regular free flow speeds. Congestion includes stopped or stop-and-go traffic. There are three broad categories for the cause of congestion: traffic incidents, work zones, and weather.

Consignee – A consignee is the recipient of the shipped goods.

Consignor – A consignor is the company of the shipped goods.

Consolidated Shipping – Consolidated shipping is a method of shipping where individual shipments from various shippers are combined into one container for shipment. Consolidated shipping saves on shipping costs. Consolidated shipping is also referred to as consolidation.

Container – A container, or shipping container, is a strong, metal box used to transport goods. They are usually made from steel and 20 to 40 feet in length.



Container on Flatcar (COFC) – COFC is a rail freight service where a full or empty shipping container is loaded on a train's flatcar and transported between yards.

Containerization – Containerization is the practice of consolidated cargo shipments into one standardized ocean container for transport as a single parcel. This allows companies to ship more goods and save on shipping costs.

Containerized Cargo – Containerized cargo are goods, commodities, or wares shipped in shipping containers from one location to another.

Corridor – A corridor, or transportation corridor, is any land area designated by the state, municipality or county that is used or is suitable for the movement of goods and people by one or more modes of transportation.

Cross-Docking Facility – Sorting center with minimal storage space. Goods that arrive to these facilities are often shipped out within 24 hours.

Cross-Docking – The cross-docking strategy reduces warehousing activities and labor by immediately transferring freight from one transportation mode to another. This strategy aids in cost savings and a quicker fulfillment time.

Deadhead Miles – Deadhead miles, or deadhead trucks, have no freight that is being moved; often the deadhead truck is on their way to pick up another load or heading to their origin destination post freight delivery.

Delay (auto) – A delay is an additional allotted travel time beyond the norm.

Demand – Demand refers to the number of people or vehicles desiring to utilize a facility or mode of transportation.

Demand to Capacity Ratio – See Volume to Capacity Ratio.

Demurrage – Demurrage is a fee assessed to a terminal for cargo that has overstayed its time at a terminal. Fee totals and policies vary between locations. Some countries combine demurrage and detention fees.

Detention – Detention charges are applied to the storage of containers under the care of a customer outside of the terminal. Fees are applied after a designated free time and vary between locations. Some countries combine demurrage and detention fees.

Distribution – Distribution is the system by which products are sorted, transported, and delivered to their destinations.

Distribution Center (DC) – A DC receives, temporarily stores, and distributes goods according to orders as they are received. DCs are the bridges between the supplier and the customer.

Double-Stack – Double-stacking is the action of placing two shipping containers on top of each other on a railcar for shipment.

Drayage – Drayage is the transport of freight from an ocean port to an on-land destination. The term refers to short distance movements and is mainly used within the container shipping industry. Drayage loads usually have departure and arrival points within the same metropolitan area.

Dunnage – Wood or durable padding materials used to protect goods in shipping.

Embargo – Embargos, or freight embargos, are when carriers or companies cease accepting freight loads based on geographic regions or product type.

Emerging Strategic Intermodal Systems (SIS) – Emerging SIS facilities usually carry a lower volume of users but are located within rapidly expanding areas or rural areas and will further grow.

Enplanements – Enplanements are the number of passengers who board an airplane.

Flatbed – A flatbed is a trailer without side walls often used for hauling large machinery or other bulky items.



Float-on/Float-off (FLO/FLO) Cargo – FLO/FLO ships are heavy-lift ships that move very large loads beyond loads typically handled by normal ships. The floating cargo is floated into the cargo space located in superposed tiers, avoiding lifting devices. The ship is usually semi-submergible and capable of lifting and transporting another ship out of the water.

Florida Freight Advisory Committee (FLAC) – State advisory committee that advises on freight related priorities, issues, projects and funding needs.

Foreign Trade Zone (FTZ) – A FTZ is a geographical areas secured under U.S. Customs and Boarder Protection (CBP). FTZs are located in or near CBP ports of entry and are internationally known as free-trade zones. Foreign and domestic goods may be moved into a FTZ for storage, exhibition, assembly, manufacturing, and processing.

For-hire Carrier – A for-hire carrier is a person or company that provides transportation to passengers or cargo for compensation.

Freight – Freight is cargo that is being transported by a ship, train, truck or airplane from one location to another.

Freight Activity Center (FAC) – A FAC is a geographical area with consistently high levels of industrial, warehousing, and distribution land uses.

Freight Forwarding – Freight forwards are intermediaries between the consigner and the consignee by arranging transportation for the freight.

Freight Logistics Zone (FLZ) – A FLZ is a grouping of activities and infrastructure that is associated with freight transportation and services. FLZs are found around intermodal logistic centers.

Freight and Rail Office (FRO) – FDOT office that is responsible for assisting with the development of the rail system and to champion the Florida's multimodal freight programs

Fulfillment Center - Warehouse where goods are packed and dispatched to fulfil customer orders. Online orders are goods which are primarily distributed from a fulfillment Center

General Aviation (GA) Airports – GA airports either do not have scheduled services or they have scheduled services with less than 2,500 annual enplanements.

Global Position System (GPS) – The GPS is a U.S.-owned utility that provides users with positioning, navigation, and timing (PNT) services at all times regardless of weather conditions or global location. The GPS has three segments: the space segment, the control segment, and the user segment.

Heavy Congestion (auto) – Heavy congestion refers to the extremely slow movement of vehicles on a roadway due to an increase in travel demand.

Heavy Vehicle (auto) – A heavy vehicle has a gross vehicle mass (GVM) or an aggregate trailer mass (ATM) of more than 4.5 tons. The GVM is the maximum weight the vehicle can carry when fully loaded.

Highway – A highway is utilized by the public for vehicular travel and includes the entire area within the right-of-way. Highways have cross-traffic, traffic signals, and occasional pedestrian crossings. They are found in rural areas and have a lower speed limit than a freeway.

Hours of Service (HOS) – The Federal Motor Carrier Safety Administration issues HOS regulations that govern how many hours a driver can operate a commercial motor vehicle. The regulations minimize driver fatigue that could lead to a higher crash rate or chronic health conditions for the driver.

Hub and Spoke Model – Distribution method where the spoke is a smaller terminal that feeds into a central terminal or hub that spreads distribution further out. In freight, it is used for freight consolidation. In the transportation of people, this model is commonly seen at airports where people travel from a smaller destination (spoke) and land at a hub to transfer to another flight or mode of transportation to another location.

Inbound Freight – Inbound freight is freight coming from a vendor to a storage facility.

Indicator (mobility performance measure) – An indicator is a mobility performance measure that shows a trend over a period of time. It is not used to achieve a goal or objective and is not used in any decision-making processes.

Intelligent Transportation System (ITS) – ITS technologies advance transportation safety and mobility and enhance productivity by integrating advanced communication technologies into transportation infrastructure and vehicles.

Intermodal – Intermodal refers to the involvement of two or more modes of transportation in conveying goods.

Intermodal Logistics Center (ILC) – An ILC is a facility or group of facilities that serve as a point of intermodal freight transfer. Activities such as transporting goods, logistics, distribution, or consolidation are carried out at ILCs. The activities and services support shipping through one or more seaports.



Lane-Miles – Lane-mile is a product of centerline miles and the number of lanes. An example is a two-mile long four-lane road with eight lane-miles.

Leased – Leasing is renting an asset or equipment from a supplier for a dollar amount and timeframe. A railroad company may lease rail from another railroad company and pay an annual rate to have railroad line control. A truck may be rented for a specified cost and period of time every month.

Less-Than-Containerload/Less-Than-Truckload (LCL/LTL) – LCL/LTL is a shipping term used to describe container loads filled by various orders or goods. Combining a delivery with other orders is more economical if shipping a small volume of goods.

Level of service (LOS) – A quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst. (HCM Sixth Edition)

Lift-on/Lift-off (LO/LO) Cargo Ship – LO/LO cargo ships are a type of vessel equipped with onboard cranes utilized for loading and unloading goods without needed external port cranes. LO/LO cargo must be lifted on and off a vessel using handling equipment.

Liner Service – A liner service vessel sails between specific ports on a fixed schedule. The schedule is published and available to the public. Alternatively, tramp service ships do not follow a schedule or have a fixed route.

Liquid Bulk Cargo – Liquid bulk cargo consists of liquid such as petroleum, water, or liquid natural gas and is stored in large volumes in tanks on ships, cargo planes, or freight trucks.

Liquid Natural Gas (LNG) – LNG is a natural gas cooled at -260°F into a liquid state for shipping and storage.

Logistics – Logistics, or freight logistics, is the management of cost-effective, accurate operations and the delivery of goods.

Long-haul – Long-haul freight movements refer to terminal to terminal transportation with a long distance.

Lowboy Trailer – A lowboy trailer, or double drop trailer, is a semi-trailer with two dropped decks. The trailer is designed to allow oversized items or equipment that exceeds normal height restrictions for transportation to be shipped.

Marine Highway – A marine highway is a navigable waterway such as rivers, bays, channels, coastal, and open-ocean routes. They have demonstrated the ability to provide additional capacity relief to landside routes that serve freight and passenger movement. An example of a route is the M-95 which stretches from Maine to Florida and parallels highway I-95.

Mobility – Mobility is the degree to which the demand for the movement of goods and people can be fulfilled. Florida measures mobility by the quantity, quality, accessibility, and utilization of transportation facilities and services.

Mobility Performance Measure – A mobility performance measure quantitatively states a metric about mobility. The metrics tie into achieving a goal or objective and are used in decision making processes.

Modal Share – Modal share, or mode split, mode-share, or modal split, is the share of people utilizing a certain type of transportation within the overall transportation usage in an urban area.

Mode – A mode is a means of transporting people or goods such as aviation, bicycles, highway, paratransit, rail (commuter, intercity passenger, and freight), transit, space, and water.

Motor Carrier – A for-hire or private motor carrier is a freight company that transports goods for compensation.

Multimodal – Multimodal transport is a travel mode that includes at least two or more modes of transportation to move cargo. The four modes could be aviation, rail, seaport, and transit.

National Network – The National Network was authorized by the Surface Transportation Act of 1982. It established a national network of highways designated for large trucks.

Need – Need refers to the demand for an identified mobility improvement. A need is identified and documented in formal long-range or master plans.

Non-Recurring Congestion (auto) – Non-recurring congestion is congestion caused by an unexpected disruption such as a lane-blocking incident.

Outbound Freight – Outward movement or shipping of goods from a storage location to its destination.

Pallet – A pallet is a platform used to package items for freight shipping. Pallets come in various sizes, but the most common size is 40”x48”. A pallet has two supporting decks, providing more stability and convenience for racking.

Piggy-Backing – Piggy-back transport refers to a situation where a transportation mode is carried on the back of another transportation mode. For example, a freight truck could be transported on rail flatcar to another location.



Port Authority – A Port Authority is a state or local government that manages or constructs port facilities such as a wharf, dock, or terminal investments.

Private Fleet – A private fleet is an in-house truck fleet operation in service to a parent corporation whose primary business is not trucking. Private fleets may have authority to act as for-hire carriers, produce revenue, and lower net operating costs.

Quality (a dimension of mobility) – Quality is the ranking of how well people or goods are being transported.

Quality of Service (QoS) – QoS measures or perceives how well a service or facility is operated.

Quantity (a dimension of mobility) – Quantity is the total number of people or goods being transported.

Rail Siding – Rail siding is a portion of the main rail network that branches and is used to move rolling stock for loading, transshipment, and unloading. Rail sidings are usually found at plants, warehouses, ports, and terminals.

Recurring Congestion (auto) – Recurring congestion is the reoccurring presence of many vehicles on a roadway or at a facility.

Reefer – A reefer is a refrigerated container usually placed on a ship or freight truck to preserve potentially perishable goods.

Return on Investment (ROI) – ROI is a performance measure that evaluates an investment's performance.

Reverse Logistics – The movement of goods from customers back to the original distributor. Examples include product returns and credit repair.

Roll-on/Roll-off (RO/RO) Ship – RO/RO ships are used for the transportation of automobiles or cargo carried on chassis that can be rolled on or off the vessel without cargo-handling equipment.

Severe congestion (auto) – Severe congestion is when traffic demand significantly exceeds the roadway's capacity.

Shipper – The shipper is responsible for tendering goods for transport and delivery.

Short haul – In a short haul, there is a relatively short distance between the origin locations of the delivery to the final locations.

Short-Sea Shipping – In short-sea or coastal or coastwise shipping, cargo or passengers are moved mainly along a seacoast and ships do not cross an ocean. The vessels are usually small enough to travel on inland waterways.

Skid – Similar to a pallet it does not have a bottom supporting deck and is often used as a permanent foundation for heavy machinery.

Soft Infrastructure – All services that are necessary to maintain economic, health, cultural, and social needs within a population.

Stable Flow – Stable flow is the consistent movement of traffic and any sort of congestion is not present.

Stakeholders – A stakeholder is an individual or a group interested in the outcomes of a project, initiative, or policy decision because they would be affected in some way.

State Highway System – The State Highway System within Florida is comprised of about 12,000 miles. The Florida Department of Transportation or state-created authorities own and maintain the State Highway System. Some major roads include Interstates 4, 75, and 95, Florida's Turnpike, and toll facilities.

Supply Chain – A supply chain is the network of people and companies involved in creating product and delivering to the consumer. The chain begins with the producers of raw materials and ends with the delivery.

Switching – Switching is when trains are guided from one track to another through the mechanical installation of a railroad switch.

Tanker – A tanker is a ship designed to transport liquid cargo in bulk. It is also a trailer type for liquid cargo for semi-trucks.

Terminal – A terminal is a location where passengers or freight either originates, terminates, or is handled during transportation. A terminal could have freight consolidation and distribution, mode transfer, vehicle transfer, storage and warehousing, and fleet maintenance.

Third-Party Logistics (3PL) Provider – A 3PL provider is a logistics specialist that provides various distribution, storage, transportation, and fulfillment services to buyers or sellers.

Throughput – The maximum number of vehicles, people, or goods that can enter or exit a transportation facility during an analysis period.

Time-Critical – Being time-critical is when a freight shipment is set to be delivered at the earliest possible time.

Time-Definite – A time-definite is a delivery guarantee that a shipment delivery will occur on a specific day or time.

Ton-Mile – A ton-mile is a unit of traffic that measures the weight of shipment and the distance hauled.

Trackage Rights – Trackage rights are agreements between railroad companies where the owner of a track grants another company the ability to use their track.

Trailer on Flatcar (TOFC) – TOFC, or ‘piggy back’ is when a trailer and the container are loaded onto a flatcar train.

Tariff – A tariff is a tax imposed by a government on goods and services imported from another country. A tariff increases the price of the goods and services to make imports less desirable or competitive versus goods and services.

Transit Time – Transit time is the total time between shipping and delivery.

Transloading – Transloading refers to transferring goods from one mode to another at a terminal interchange point.

Travel Time – Travel time is the amount of time spent traveling from one point to another.

Travel Time Reliability (TTR) – TTR is the consistency or dependability in travel times measured daily across different times. TTR measures the extent of an unexpected delay.

Travel Time Variability (TTV) – TTV is the degree of travel time variation for a trip on the same route for a specific period of time.

Truckload (TL) – A TL is the quantity of freight needed to fill a truck trailer and is usually over 10,000 pounds. Full truckloads do not typically make multiple stops and deliver directly to distribution centers and warehouses. Alternatively, a less-than truckload (LTL) does not fill an entire trailer.

Twenty-Foot Equivalent Unit (TEU) – A TEU is a unit of measurement used to determine the cargo capacity for a container ship or terminal. The measurement is derived from the standard size of a shipping container which is usually 20 or 40 feet in length.

Utilization (a dimension of mobility) – Utilization measures how efficiently a system is being used. Mobility performance measures associated with the mobility dimension include volume to capacity ratios, percent miles severely congested, and percent travel severely congested.

Vehicle Miles of Travel (VMT) – VMT measures how far a private vehicle, such as an automobile, van, pickup truck, or motorcycle, has traveled.

Volume to Capacity (V/C) Ratio – Either the ratio of demand volume to capacity or the ratio of service flow volume to capacity, depending on the particular problem situation.

Warehousing – Warehousing is the storage of goods for a specific period at a storage location, or a warehouse.

Work Program – The work program lists five-years’ worth of transportation projects that are planned for each fiscal year by FDOT. It is adjusted for the legislatively approved budget for the program's first year.

Yard Dog – Truck driver who only moves trailers from one destination to a dock.





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TRANSYSTEMS

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