

Freight Networks Summary Memorandum

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# **Abbreviations List**

Abbreviation	Complete Name/Phrase	Abbreviation	Complete Name/Phrase
AADT	Annual Average Daily Traffic	МРО	Metropolitan Planning Organization
AADTT	Annual Average Daily Truck Traffic	NHFN	National Highway Freight Network
BIL	Bipartisan Infrastructure Law	NHFP	National Highway Freight Program
CRFC	Critical Rural Freight Corridor	NHS	National Highway System
CUFC	Critical Urban Freight Corridor	NMFM	National Multimodal Freight Network
DOD	Department of Defense	PHFS	Primary Highway Freight System
FAST Act	Fixing America's Surface Transportation Act	RAO	Rural Area of Opportunity
FDOT	Florida Department of Transportation	SDDCTEA	Surface Deployment and Distribution Command Transportation Engineering Agency
FEC Railway	Florida East Coast Railway	SEFTC	Southeast Florida Transportation Council
FTE	Florida Turnpike Enterprise	SHS	State Highway System
FTP	Florida Transportation Plan	SIS	Strategic Intermodal System
GMX	Greater Miami Expressway Agency	STRAHNET	Strategic Highway Network
HND	Highways for National Defense	SFRTA	South Florida Regional Transportation Authority
IHS	Interstate Highway System	TDA	Transportation Data and Analytics Office
IIJA	Infrastructure Investment and Jobs Act	ТРА	Transportation Planning Agency
ILC	Intermodal Logistics Center	ТРО	Transportation Planning Organization
MDX	Miami-Dade Expressway Authority	USDOT	US Department of Transportation
MIA	Miami International Airport	VMT	Vehicle Miles Traveled



#### 1.0 Introduction

The Miami-Dade Countywide Freight Improvement Plan, an initiative by the Florida Department of Transportation (FDOT) District Six, is intended to enhance freight and logistics capacity, improve economic competitiveness through a more efficient transportation network, and provide a prioritized project bank for future infrastructure improvements to achieve these ends. The following Freight Networks Summary Memorandum is an inventory of the freight networks that comprise the multimodal freight transportation infrastructure in the study area. Understanding the transportation networks and their supporting elements contextualizes the movement of goods and services within and beyond the Miami-Dade region. This memorandum summarizes the following significant federal, state, and regionally designated freight networks:

- The Federal Highway and Freight Networks,
- The State Highway Freight Networks and
- The Regional Highway Freight Networks.

## 2.0 Federal Highway and Freight Networks

This section provides an overview of all freight and freight-related transportation networks and systems designated at the national level and includes:

- National Multimodal Freight Network (NMFM)
- National Highway System (NHS)
- National Highway Freight Network (NHFN)

#### 2.1 National Multimodal Freight Network

On November 27, 2023, the White House and the US Department of Transportation (USDOT) announced the launch of the Office of Multimodal Freight Infrastructure and Policy to oversee the development of the NMFN.<sup>1</sup> The NMFN is a USDOT initiative established by the Fixing America's Surface Transportation (FAST) Act. As the name suggests, the NMFN includes multiple transportation modes and encompasses a diverse array of FAST Act-required assets, including:

- The NHFN, as established under 23 USC 167—approximately 51,029 highway miles
- The <u>freight rail systems of Class I railroads</u>—approximately 104,296 miles
- Public ports with total foreign and domestic trade of more than 2 million short tons—113 ports
- The <u>inland and intracostal waterways</u> of the US, the Great Lakes, St. Lawrence Seaway, coastal, and open-ocean waterways—approximately 25,000 miles
- The top 50 airports with the highest annual landed weight
- Other strategic freight assets—the Department defined these to include:
  - Approximately 9,100 miles of Class II and Class III railroads
  - Three ports designated as commercially strategic by the Department of Defense (DOD)<sup>2</sup>
  - Six additional airports<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> <u>USDOT; Biden-Harris Administration Announces New Freight Office and Major Progress Strengthening Supply</u> Chains

<sup>&</sup>lt;sup>2</sup> Portsmouth, VA, San Diego, CA, and Apra Harbor, Guam

<sup>&</sup>lt;sup>3</sup> Charlotte, NC; Las Vegas, NV; Hutsville, AL; Spokane, WA; Tampa, FL; Pittsburgh, PA;



The NMFN is subject to the National Multimodal Freight Policy, which aims to enhance the US' economic competitiveness, reduce congestion and bottlenecks, increase productivity, and improve the safety, security, efficiency, and resilience of multimodal freight transportation. Accordingly, the NMFN has the following four statutory goals:

- 1. Strategic Resource Allocation: To assist states in strategically directing resources towards improved system performance for the efficient movement of freight. This goal involves identifying key freight corridors, facilities, and transportation modes and directing investment and resources to these areas to enhance the overall performance and efficiency of the freight system.
- 2. Informing Freight Transportation Planning: New data, programs, policies, and best practices are being developed as a result of the NMFN, which supports the prioritization of freight in the planning process. The NMFN is intended to help communicate the benefits of freight projects that are considered in transportation planning and decision-making.
- **3. PRIORITIZATION OF FEDERAL INVESTMENT:** The network aims to assist in prioritizing federal investment in freight transportation. By identifying the most crucial freight networks and assets, the NMFN helps ensure that federal funding is directed toward projects that will have the greatest impact on the nation's freight transportation system.
- **4. ACHIEVING NATIONAL POLICY GOALS:** The NMFN is intended to support and advance the goals outlined in the National Multimodal Freight Policy and the National Highway Freight Program (NHFP), as stipulated in the FAST Act.

During its early development phase, an Interim NMFN<sup>4 5</sup> was published in the Federal Register at 81 FR 36381 on June 6, 2016,<sup>6</sup> and the public was invited to submit comments to the docket through September 6, 2016. The feedback from the interim phase was used to refine and develop the upcoming NMFN planned to be designated per the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL).<sup>7</sup>

**Table 1** lists the existing Interim NMFN facilities found in District Six. **Figure 1** on the following page provides a comprehensive map of the same NMFN facilities.

<sup>&</sup>lt;sup>4</sup> USDOT; US Intermim NMFM Published Map

<sup>&</sup>lt;sup>5</sup> USDOT, BTS; Interim NMFM Interactive Map

<sup>&</sup>lt;sup>6</sup> Federal Register Volume 81, Issue 108 (June 6, 2016) - Establishment of INMN

<sup>&</sup>lt;sup>7</sup> FHWA; Implementation Guidance for the NHFP as Revised by the BIL (2022)



Table 1: Interim NMFN Facilities in Miami-Dade County

Facility Type	Facility Name				
	I-75	SR-826	NW 5 <sup>th</sup> St		
	I-95	SR-836	NW 21 <sup>st</sup> St		
	I-195	SR-948	NW 25 <sup>th</sup> St		
Highways	I-395	SR-953	NW 37 <sup>th</sup> Ave		
Highways	US-1	NE 1 <sup>st</sup> Ave	NW 67 <sup>th</sup> Ave		
	US-41	NE 2 <sup>nd</sup> Ave	NW 74 <sup>th</sup> St		
	SR-91	NE 6 <sup>th</sup> St			
	SR-821	NW 3 <sup>rd</sup> Ave			
	CSX Transportation				
Railways	Florida East Coast (FEC) Railway				
Nailways	South Florida Regional Transportation Authority				
	(SFRTA; or South Florida Rail Corridor)				
Ports	PortMiami				
Inland Coastal Waterways	Atlantic Intracoastal Waterway				
Marine Highways	Atlantic Deepwater Spine				
Airport	Miami International Airport (MIA)				

Source: USDOT, Bureau of Transportation Statistics, May 2016



Hollywood Pembroke 27 Hallandale Miramar Beach Ives Esta 0 Country Club Carol City Norland Su iny Isles Beach North Mia Scott Lake Beach 27 Bay Aarbor Islands 95 orth Mia Hialeah Gardens liami Sl West Little River North Bay Hialeah rownsville Miami Springs Miami Beach 395 Mam Tamiami Cana/Sweetwater Westcheste SW 40th St Westwood 913 Lakes Coral Gables Kendall West Sunset 913 SW 72nd St Heights The Hammocks Pinecrest Kendall Three SW 15 Palmetto Palmetto Bay Estates Cutler Richmo South Miami Seaport Heights V 200th St Cutler Bay Airport Highways SW 232nd St Railways Inland and Coastal Waterways 2.5 Miles Biscayne Homestead Air

Figure 1: Interim National Multimodal Freight Network in Miami-Dade County

Source: USDOT, Bureau of Transportation Statistics, 2019



#### 2.2 National Highway System

The NHS was officially established by the *NHS Designation Act of 1995*. It is the backbone of our national transportation network, connecting major population centers, international border crossings, ports, airports, public transportation facilities, and other important travel destinations. The NHS plays a vital role in meeting national defense requirements and facilitating interstate and interregional travel.

The effective management and maintenance of the NHS hinges on a collaborative framework involving various levels of government. Federal authorities provide oversight and establish standards, while state governments are responsible for implementing these standards and making necessary modifications. Local government participation, primarily through regional planning organizations, ensures that the unique needs of local communities are integrated into the decision-making process. This multifaceted partnership is not just about maintaining functionality and safety; it also plays a pivotal role in adapting the system to evolving transportation needs and challenges, ensuring its relevance and efficiency in the long term.

To better understand the NHS and how it serves and impacts freight transportation, the following section explores the subsystems of the overall network: Interstate highways, plus Other Principal Arterials, the Strategic Highway Network (STRAHNET), Major STRAHNET Connectors, and Intermodal Connectors.<sup>10</sup> <sup>11</sup>

**INTERSTATES:** The Interstate Highway System (IHS) is a cornerstone of America's transportation infrastructure, spanning 46,876 miles and connecting principal metropolitan areas, cities, and industrial regions. <sup>12</sup> Characterized by uniform geometric standards mandated by legislation, the IHS is designed for high-speed, long-distance travel. Its distinct features, including multiple lanes, limited or controlled access, grade-separated junctions, and the absence of traffic signals, are tailored for efficient and rapid movement. <sup>13</sup> This design significantly enhances freight efficiency by reducing travel times and facilitating the reliable transportation of heavy and oversized loads. <sup>14</sup>

The strategic layout of the IHS, with even-numbered routes running east-west and odd-numbered routes running north-south, simplifies and streamlines freight movement across the nation, from coast to coast and border to border. Additionally, the system's importance extends to emergency management, especially during declared disasters, as it enables swift movement of supplies and equipment, crucial for effective response and recovery efforts.

**OTHER PRINCIPAL ARTERIALS:** Spanning approximately 157,648 miles, Other Principal Arterials are non-interstate principal arterials serving urban and rural areas. Distinct from the IHS, these arterials can provide direct access to properties, businesses, and local roads, critical for local and regional connectivity. Additionally, they may feature traffic signals, at-grade intersections, and varying levels of access control. They are vital for regional transportation, connecting smaller towns and cities, and offering links to the IHS.

<sup>&</sup>lt;sup>8</sup> NHS Designation Act of 1995

<sup>&</sup>lt;sup>9</sup> NHS Procedures

<sup>&</sup>lt;sup>10</sup> National Highway System, 2017

<sup>&</sup>lt;sup>11</sup> Specific highway routes may fall into more than one subsystem.

<sup>&</sup>lt;sup>12</sup> FHWA; Highway Statistics 2020

<sup>&</sup>lt;sup>13</sup> FHWA; Highway Functional Classification: Concepts, Criteria and Procedures 2023 Edition

<sup>&</sup>lt;sup>14</sup> CFR; Title 23 - Highways; Chapter 1; Subchapter E; Part 470 - Highway Systems



**STRAHNET:** The STRAHNET is a key component of the federal government's Highways for National Defense (HND) Program. This extensive network encompasses over 61,000 miles of public highways, of which over 45,000 miles are integral parts of the IHS. Its primary role is to facilitate military access and provide continuity and emergency capabilities for the transportation of personnel and heavy equipment convoys, serving both peacetime and wartime needs.<sup>15</sup>

The Military Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA) is responsible for managing STRAHNET for the DOD. STRAHNET is periodically reviewed and updated to meet national defense needs, with input and approval from FHWA and state transportation departments.<sup>16</sup>

MAJOR STRAHNET CONNECTORS: These vital first/last-mile links (about 1,800 miles) connect key military facilities—such as bases, airfields, ports, and depots—to the primary STRAHNET routes. These connectors are typically shorter than the main STRAHNET routes but are specifically engineered to accommodate the unique demands of heavy military vehicles. They feature specific design considerations, including appropriate width, height clearances, and load-bearing capacities. While installations may have multiple access/egress routes, STRAHNET Connectors are generally the most direct and highest functional class roadway.<sup>17</sup>

INTERMODAL CONNECTORS: With a total count of 2,068 linkages across the country, Intermodal Connectors help manage the transport of large, heavy trucks between freight centers and the mainline NHS. FHWA categorizes these connectors into the following types: airports, AMTRAK stations, ferry terminals, intercity bus terminals, multipurpose passenger facilities, port terminals, port/rail terminals, public transit stations, and truck/pipeline or truck/rail facilities. Despite their relatively short length, approximately 1.46 miles on average, Intermodal Connectors play a crucial role in enhancing the overall efficiency and reliability of the transportation network. This is achieved by facilitating the smooth transfer of freight from one transportation mode to another.

**Table 2** lists all NHS subsystem roadways within District Six. **Table 3** lists the eight NHS Intermodal Connectors located in District Six. **Figure 2** on the following page shows a map of the NHS in District Six.

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<sup>&</sup>lt;sup>15</sup> NCFRP; Freight Transportation Resilience in Response to Supply Chain Disruptions 2019

<sup>&</sup>lt;sup>16</sup> SDDCTEA; Highways for National Defense

<sup>&</sup>lt;sup>17</sup> SDDCTEA; STRAHNET Atlas (2013)

<sup>&</sup>lt;sup>18</sup> FHWA; Intermodal Connectors (2022)



Table 2: National Highway System in Miami-Dade County

NHS Subsystem	Road Numbers	Centerline Miles
Interstates	I-75, I-95, I-195, I-395	28.41
Other Principal Arterials	US-27, SR-821, SR-836, SR-997	134.17
STRAHNET	US-1, SR-826	60.08
Major STRAHNET Connectors	None within District Six	0.00
Intermodal Connectors	I-95, I-395, SR-826, SR-836, SR-934, SR-986	13.51
Total		236.17

Source: FHWA-NHS, September 2023; FHWA-NHS, Intermodal Connectors, FL 2022<sup>19</sup>

Table 3: NHS Intermodal Connectors in Miami-Dade County

Facility ID	Facility Name	Туре	Length (Miles)
FL17A	Miami International Airport	Airport	1.90
FL17A	Miami International Airport	Airport	0.91
FL18P	Port of Miami	Port Terminal	4.82
FL22T	MetroRail Government Center	Public Transit Station	0.81
FL23T	MetroRail South Miami Station	Public Transit Station	0.35
FL21T	Tri-Rail (Airport Passenger) - Miami	Public Transit Station	0.11
FL53R	Miami's Doral Off-Airport Cargo Area	Truck/Rail Facility	1.00
FL54R	Miami's Off-Airport West Cargo Area	Truck/Rail Facility	0.25
FL19R	Parsec Miami/Parsec Automobile Terminal	Truck/Rail Facility	2.09
FL20R	Parsec (North) - Miami	Truck/Rail Facility	1.26
Total			13.51

Source: FHWA-NHS, Intermodal Connectors, FL 2022<sup>20</sup>

<sup>&</sup>lt;sup>19</sup> FHWA; Intermodal Connectors – U.S. Intermodal Connectors List (2022)

<sup>&</sup>lt;sup>20</sup> FHWA; Intermodal Connectors – U.S. Intermodal Connectors List (2022)





Figure 2: National Highway System in Miami-Dade County

Source: FDOT TDA, December 2023



#### 2.3 National Highway Freight Network

The NHFN is a component of the NMFN. It was established to strategically direct federal resources and policies toward improved performance of highway portions of the US freight transportation system. This network is the primary funding target for the NHFP and a significant funding target for other discretionary grant programs.<sup>21</sup> The program has undergone several significant changes, including recent updates from the IIJA and earlier key acts.<sup>22</sup> <sup>23</sup> The NHFN comprises four distinct components, each supporting different freight transportation needs.<sup>24</sup>

PRIMARY HIGHWAY FREIGHT SYSTEM (PHFS): The PHFS is a network of highways identified as most critical for freight movement in the US. It comprises about 41,799 centerline miles, including 38,014 centerline miles of Interstate and 3,785 centerline miles of non-interstate roads. The PHFS is selected based on measurable data like freight volume, connecting major ports, intermodal facilities, and economic centers. The FHWA Administrator must update the PHFS every five years. Each update is capped at a maximum three percent increase in the system's total mileage.

OTHER INTERSTATE PORTIONS NOT ON THE PHFS (NON-PHFS): Non-PHFS roadways include parts of the IHS not designated as PHFS but are vital for freight movement. These routes provide important continuity and access to freight transportation facilities.

**CRITICAL RURAL FREIGHT CORRIDORS (CRFCs):** CRFCs are public roads located outside of urbanized areas that provide access and connections between the PHFS, the IHS, and other key freight-related locations. The designation of CRFCs expands the usage of NHFP formula funds and grant funds for eligible projects. A state can designate a public road as a CRFC if it is not within an urbanized area and meets one or more of the FAST Act's seven criteria. According to the BIL, a state can designate up to 300 miles or 20 percent of its PHFS mileage, whichever is greater.

**CRITICAL URBAN FREIGHT CORRIDORS (CUFCs):** CUFCs are public roads within urbanized areas that provide access and connections between the PHFS, the IHS, and other key freight-related locations. The designation of CUFCs varies based on population size:

- For areas with 500,000+ people, the Metropolitan Planning Organization (MPO), in coordination with the state, designates CUFCs.
- In areas with fewer than 500,000 people, the state, consulting with the MPO, handles CUFC designation.

Regardless of population, any public road in an urbanized area can be designated as a CUFC if it meets one or more of the FAST Act's four criteria. According to the IIJA, a state can designate up to 150 miles or 10 percent of its PHFS mileage, whichever is greater.

**Table 4** lists all NHFN subsystem roadways within District Six. **Figure 3** on the following page shows a map of the NHFN in District Six.

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<sup>&</sup>lt;sup>21</sup> Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) Grants Program and the Infrastructure For Rebuilding America (INFRA) Grants Program

<sup>&</sup>lt;sup>22</sup> Moving Ahead for Progress in the 21st Century (MAP-21) Act and the FAST Act

<sup>&</sup>lt;sup>23</sup> FHWA; BIL Fact Sheets/National Highway Freight Program (2022)

<sup>&</sup>lt;sup>24</sup> FHWA; Implementation Guidance for the NHFP as Revised by the BIL (2022)

<sup>&</sup>lt;sup>25</sup> FHWA; CRFC and CUFC Guidance (2016)



Table 4: National Highway Freight Network in Miami-Dade County

NHFN Subsystem	Road Numbers	Centerline Miles
PHFS	I-95, I-395, SR-821, SR-826, SR-836	61.39
Non-PHFS	I-75, I-95, I-195	10.91
CRFC <sup>26</sup>	N/A	0.00
CUFC <sup>27</sup>	N/A	0.00
Total		72.30

Source: FDOT Open Data Hub

<sup>&</sup>lt;sup>26</sup> There are no CRFCs in District Six; however, approximately five miles of US-27 from the Broward County line to SR-821 (Florida's Turnpike) interchange on the northwest portion of the District are proposed to be added as a CRFC.

<sup>&</sup>lt;sup>27</sup> There are no CUFCs in District Six; however, approximately five miles of US-27 from SR-821 (Florida's Turnpike) to SR-826 (Palmetto Expressway) near Hialeah Gardens are proposed to be added as a CUFC.



Hollywood Pembroke [27] Pines Hallandale Miramar Beach Ives Estates Aventura Country Club Carol City Ojus North Miami Sunny Isles Scott Lake Beach 953 95 orth Miami Bay Harbor Islands Hialeah Gardens liami Shores West Little River North Bay Village Hialeah Brownsville Miami Springs Miami nternational Miami Beach Mami Tamiami Canal Sweetwater Westchester SW 40th St Westwood 913 Lakes Coral Gables Sunset Kendall West 913 Glenvar The Hammocks Pinecrest Kendall Three Lakes Palmetto Bay Estates Cutler SW 152nd St Richmond West South Miami Heights **NHFN** SW 200th St **Cutler Bay** - PHFS Non-PHFS SW 232nd St CRFC (Proposed) -- CUFC (Proposed) 2.5 Miles Biscayne

Figure 3: National Highway Freight Network in Miami-Dade County

Source: FHWA, 2023



## 3.0 State Highway and Freight Networks

FDOT prioritizes projects that contribute to Florida's overall mobility, safety, and economic development by planning, designing, constructing, and maintaining state-owned highways. By managing and investing in the State Highway System (SHS), Strategic Intermodal System (SIS), and Florida's Turnpike, FDOT not only ensures eligibility for state and federal funding but also actively promotes the seamless flow of traffic, enhances connectivity between different transportation modes, and supports the economic vitality of Florida. The strategic planning and implementation undertaken by FDOT are integral to maintaining a robust and adaptive multimodal transportation network that meets the evolving needs of Florida's residents and businesses.

#### 3.1 State Highway System

The SHS is comprised of 12,157 centerline miles of Federal aid and state-owned roads. The SHS includes interstates, arterials, and collector roads, essential for the safe and efficient movement of people and goods throughout Florida.

According to the 2023 FDOT Source Book, 56 percent or 350 million of the daily vehicle miles traveled in Florida are on the SHS, and the SHS records a freight volume of 357,000 trucks per day. Within the SHS, the SIS experiences the highest volume of freight and truck movement, serving as an efficient entry and exit point for the region. It links major population centers and provides access to intermodal freight hubs and facilities. **Table 5** displays data from FDOT's Transportation Data and Analytics Office (TDA) for the length of SHS and daily vehicle miles traveled (VMT) in District Six. **Figure 4** provides a comprehensive map of the SHS in District Six.

Table 5. State Highway System in Miami-Dade County (June 30, 2023)

County	Centerline Miles	Lane Miles	Daily Vehicle Miles Traveled (Thousands)
Miami-Dade	580.29	2,896.91	33,283.00
Monroe	119.29	301.21	2,397.13
District 6	699.57	3,198.12	35,680.13

Source: FDOT TDA, 2023<sup>28</sup>

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<sup>&</sup>lt;sup>28</sup> FDOT; TDA – 20230630 SHS.xlsx



997 41 Legend Interstates Toll Roads U.S. Highways State Roads

Figure 4: State Highway System in Miami-Dade County

Source: FDOT TDA, 2023



#### 3.2 Strategic Intermodal System

The SIS constitutes Florida's primary network of transportation facilities supporting economic vitality and mobility, including passenger and freight operations. It holds the highest priority for transportation capacity investments in the State and is a central focus for implementing the Florida Transportation Plan (FTP). The FTP outlines the long-term vision and policy plan for transportation in the State.<sup>29</sup>

The SIS encompasses a comprehensive network of critical transportation assets in Florida. These strategically designated facilities serve as vital conduits for the efficient movement of people and goods within Florida's various regions and facilitate connections with other states and nations. The selection of SIS facilities is based on consistent, quantitative criteria related to transportation and economic metrics, ensuring their ability to support significant interregional, interstate, and international travel and commerce.

Modal freight transportation facilities within the SIS are generally categorized into three main groups: Corridors, Hubs, and Intermodal Connectors. SIS corridor and hub facilities can also be labeled as "Strategic Growth," indicating that while they may not currently meet the minimum criteria for SIS designation, they are projected to do so within three years or are deemed to be of significant interest to the State. These elements form an integrated intermodal system that facilitates the efficient movement of freight into, out of, and within Florida. Table 6 presents the mileage of SIS highways and railways within District Six, as recorded in the SIS Atlas. Figure 5 provides a comprehensive map of District Six SIS Facilities.

Table 6. Strategic Intermodal System Highway and Rail Miles in Miami-Dade County

		Active and	Planned Dro	p Facilities		Future
Facility	Corr	idor	Connector		Military Access	Facility
	SIS	Strategic Growth	SIS	Strategic Growth		
Highway Miles (Centerline)	198	1	15	1	1	-
Highway Miles (Lane)	1,158		54		-	
Rail Miles	50	-	7	-	-	-

Decimal places not available from source Source: FDOT; SIS Atlas (2023)30

<sup>&</sup>lt;sup>29</sup> FDOT; Florida's SIS

<sup>&</sup>lt;sup>30</sup> FDOT; SIS Atlas – District Six



Hallywood Pembroke Pines lallandale Beach Miramar Ives Est Aventura 75 Country Club Carol City Ojus orland Sunny Isles Beach Beach! Bay Harbor aleah Gardens liami Shores West Little River North Bay Village Brownsville Miami Sp Miami Miami Beach Mami Tamiami CanalSi veetwater Westchester SW 40th St We twood 913 Coral Gables Kendall West Sunset 913 SW 72nd St var hts The Hammocks Pinecrest Kendall Three Lak Palmetto Palmetto Bay Estates Cutler SW 152nd St Richmond SIS Highway West South Miami Corridor Heigh Connector SW 200th St Cutle Bay SIS Railway Connector SW 232nd St - - · Corridor - - · SG Corridor 2.5 5 Miles Biscayne

Figure 5: Strategic Intermodal System in Miami-Dade County

Source: FDOT SIS, November 2023



**HIGHWAY:** Highway corridors play a key role in the SIS as the highest volume of people and freight are transported through its facilities. These corridors receive the largest portion of funding from state and federal sources for capacity projects. To be designated as a <u>SIS Highway Corridor</u>, a facility must meet the following criteria: <sup>31</sup>

- It must be an interstate or high-capacity tolled facility.
- It must be a limited access facility with a SIS or limited access facility at each end.
- It must be a National Highway System (NHS) facility that connects to an urbanized area outside of Florida not already served by a SIS facility.
- It must be a controlled access facility connecting two or more urbanized areas with a SIS facility at each end.
- It must be a corridor connecting one or more urbanized areas with or through a Rural Area of Opportunity (RAO)<sup>32</sup> and have an Annual Average Daily Traffic (AADT) of at least 6,000 or an Annual Average Daily Truck Traffic (AADTT) of at least 1,000, with a SIS facility at each end.

Table 7 lists the roadways included in the 191 miles of SIS Highway Corridors in District Six.

RAIL: Railroads are critical in establishing intermodal freight access and connecting major population centers, seaports, and transload facilities within the South Florida region. The SIS rail corridors in District Six are managed by either Class I or Class II railroads. There are approximately 65 miles of freight rail track corridors in District Six, operated by CSX Transportation and FEC Railway, which include national and regional rail lines. The FEC mainline, approximately six miles from Little River to PortMiami, is designated as a SIS Connector.

A Freight Rail Terminal designated as SIS serves as a break-bulk point for transferring goods across different modes. The Miami Hialeah FEC Intermodal Terminal is the only SIS-designated terminal in District Six.

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<sup>&</sup>lt;sup>31</sup> FDOT; SIS Facility Designation (2023)

<sup>&</sup>lt;sup>32</sup> Florida Commerce; Rural Area of Opportunity



Table 7: Strategic Intermodal System Highway Corridors in Miami-Dade County

Facility Name	Road Name	Length (Miles)
I-75	I-75/SR-93/I-75	5.46
I-95	I-95/SR-5/I-95	1.95
I-95	I-95/SR-9A/I-95	11.74
I-95	I-95/SR-9/I-95	3.51
I-195	I-195/SR-112/SR-112	1.31
I-195	I-195/SR-112/Julia Tuttle Cswy	3.13
I-395	I-395/SR-836/Dolphin Expwy	1.19
US-1	US-1/SR-5/South Dixie Hwy	13.95
US-1	US-1/SR-5/South Dixie Hwy	1.85
US-1	US-1/SR-5/Homestead Blvd	1.24
US-27/SR-25	US-27/SR-25/Okeechobee Rd	10.21
SR-112/Airport Expwy	SR-112/SR-112	4.13
SR-112/Airport Expwy	SR-112/SR-112	0.49
SR-821/HEFT	SR-821/Turnpike Ext	39.87
SR-826/Palmetto Expwy	SR-826/Palmetto Expwy	24.19
SR-826/Palmetto Expwy	SR-826/NW 7 Ave Ext	0.04
SR-836/Dolphin Expwy	SR-836/Dolphin Expwy	11.76
SR-836/Dolphin Expwy	I-395/SR-836/Dolphin Expwy	0.11
SR-874/Don Shula Expwy	SR-874/SR-874	6.95
SR-878/Snapper Creek Expwy	SR-878/Snapper Creek Expwy	2.62
SR-91/Florida Turnpike	SR-826/Golden Glades Intchg	0.28
SR-91/Florida Turnpike	SR-91/Turnpike Mainline	3.34
SR-924/Gratigny Pkwy	SR-924/NW 119 St/Gratigny D	2.12
SR-924/Gratigny Pkwy	SR-924/SR-924	5.38
SR-997/Krome Ave	SR-997/Krome Ave	14.28
SR-997/Krome Ave	SR-997/Krome Ave/SW 177 Ave	19.56
SR-997/Krome Ave	SR-998/Campbell Dr/SW 312 S	0.77
Total		191.41

Source: SIS Facilities GIS Shapefiles<sup>33</sup>

**Hubs:** Hubs are ports and terminals facilitating the transportation of people and goods within the Florida region or between Florida and other markets in the US and globally. These include commercial service airports, deepwater seaports, spaceports, interregional rail and bus terminals, and freight rail terminals.

There are five different types of Hubs within District Six that include the facilities summarized in **Table 8**.

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<sup>&</sup>lt;sup>33</sup> FDOT; Planning, Systems, SIS, Maps



Table 8: Strategic Intermodal System Hubs in District Six

Facility Name	Designation	Facility Type
MIA	SIS	Commercial Service Airport
Key West International (EYW)	Not Designated	Commercial Service Airport
CSX (Miami)	Not Designated	Freight Terminals
FEC (Miami)	SIS	Freight Terminals
Port of Miami (FEC)	Not Designated	Freight Terminals
Miami Executive (TMB)	SIS	General Aviation Reliever Airport
Miami Opa-Locka Executive (OPF)	SIS	General Aviation Reliever Airport
Homestead AFB	Not Designated	Military Access Facility
Key West Coast Guard	Not Designated	Military Access Facility
Key West NAS	Not Designated	Military Access Facility
Miami Coast Guard	Not Designated	Military Access Facility
Richmond AFS	Not Designated	Military Access Facility
Southern Command	Not Designated	Military Access Facility
Port of Key West	Not Designated	Seaport
PortMiami	SIS	Seaport

Source: SIS Facilities GIS Shapefiles<sup>34</sup>

SIS INTERMODAL CONNECTORS: SIS Intermodal Connectors are critical components that link hubs (e.g., ports, airports, and freight centers) to the main SIS corridors. Key criteria for SIS intermodal connectors include: 35

- The connector must link to the nearest or most appropriate SIS corridor to facilitate interregional, interstate, or international trips.
- Where possible, the connector should:
  - Have the ability to accommodate significant flows of interregional, interstate, or international trips from a hub.
  - o Provide high-speed, high-capacity, limited access service,
  - Provide the most direct access, and
  - Provide two-way directional movement.
- Multiple connectors of the same mode (highway, rail, or waterway) can sometimes be designated to a single hub. This is applicable when:
  - The hub meets freight and passenger thresholds and has separate freight and passenger handling facilities.
  - o The hub has multiple terminals or terminal areas with discrete access points.
  - Significant existing interregional flows of people or goods are divided among more than one mode or geographic flow.
  - Separating passenger and freight connections improves overall mobility to and from the hub.
  - Having multiple options provides necessary redundancy and resiliency.

SIS Intermodal Connectors in Florida often overlap with the NHS connectors, indicating shared strategic transportation priorities. However, these connectors are developed through distinct processes: the SIS

<sup>&</sup>lt;sup>34</sup> FDOT; Planning, Systems, SIS, Maps

<sup>&</sup>lt;sup>35</sup> FDOT; SIS Facility Designation (2023)



focuses on state and interregional connectivity under District oversight, and the NHS addresses broader national transportation needs in cooperation with various national and state entities. **Table 9** lists the roadways included in the nearly 15 miles of SIS Intermodal Connectors in District Six.

Table 9. Strategic Intermodal System Intermodal Roadway Connectors in Miami-Dade County

Facility Name	Road Name	Length (Miles)
Golden Glades Intermodal Connector	US-441/SR-7/Golden Glades Intchg	0.78
Golden Glades Intermodal Connector	US-441/SR-7/Golden Glades Intchg	0.49
Golden Glades Intermodal Connector	SR-7/Golden Glades Intchg	0.23
Golden Glades Intermodal Connector	US-441/SR-7/NB US-441 to NB I-95	0.18
Golden Glades Intermodal Connector	US-441/SR-7/SB I-95 to SB US-441	0.10
Kendall-Tamiami Executive Airport Connector	SW 120 St	1.92
Kendall-Tamiami Executive Airport Connector	SR-825/Lindgren Rd/SW 137 A	0.55
Miami Amtrak Connector	SR-934/NW 79 St	3.18
Miami Amtrak Connector	NW 6 Ave	0.17
Miami Amtrak Connector	NW 6 Ct	0.20
Miami Hialeah FEC Intermodal Terminal Connector	NW 74 St	0.25
Miami Hialeah FEC Intermodal Terminal Connector	NW 69 Av	0.15
Miami Hialeah FEC Intermodal Terminal Connector	SR-969/NW 72 Ave	0.06
Miami Hialeah FEC Intermodal Terminal Connector	SR-934/Hialeah Expressway	0.51
Miami Intermodal Center Connector	SR-836/NW 12 St Dr	0.46
Miami Intermodal Center Connector	SR-836/EB NW 21 ST to NW 45	0.49
Miami Intermodal Center Connector	SR-836/87281224 to 87281236	0.34
Miami Intermodal Center Connector	NB NW 42 AVE to MIC	0.19
Miami Intermodal Center Connector	MIC to SB NW 42 Ave	0.29
Miami International Airport Cargo Connector	NW 25 St Viaduct	1.02
Miami International Airport Connector	SR-836/EB NW 21 ST to NW 45	0.08
Miami International Airport Connector	87200131 to NB 42 Av	0.24
Miami Opa-Locka Executive Airport Connector	NW 42 Ave/37 Ave Con	0.50
Miami Opa-Locka Executive Airport Connector	NW 42/37 Av Connect	0.89
PortMiami Connector	SR-887/Port of Miami Tunnel	1.00
PortMiami Connector	US-41/SR-A1A/Macarthur Causeway	0.55
Total		14.79

Source: SIS Facilities GIS Shapefiles<sup>36</sup>

#### 3.3 Florida's Turnpike

The Florida Turnpike Enterprise (FTE) is a separate business unit of the FDOT that manages and operates Florida's Turnpike System. FTE oversees all activities on each toll road and bridge owned and operated by FDOT along the Turnpike System. By providing dedicated toll roads and limited-access design, the Turnpike System helps alleviate congestion, allowing trucks to maintain higher speeds and reduce travel times. Each Turnpike Five-year Work Program has planned various projects that will expand the network

<sup>&</sup>lt;sup>36</sup> FDOT; Planning, Systems, SIS, Maps



to over 500 miles of roadway<sup>37</sup>. The Florida Turnpike Mainline is 312 miles long and runs through 11 counties, from north of Orlando to Miami-Dade County.

In Miami-Dade County, the Turnpike Extension runs along the County's western portion from Broward until the US-1 connection in Homestead for approximately 40 miles. The Turnpike Extension is being widened to 10 lanes from SR-836 (Dolphin Expressway) to NW 106 St (Flagler Station Boulevard) and is expected to be completed in 2024. The second construction project in the County includes widening the Turnpike Extension to 10 lanes between NW 106th St and I-75 and is estimated to be completed in 2025. The following projects are currently in Design:

- Turnpike Mainline from south of the Golden Glades Toll Plaza to the Miami-Dade/Broward County line – Widen from six to eight lanes (Construction funded for 2027)
- Turnpike Mainline at Hainlin Mill Rd Interchange improvements (Construction funded for 2025)
- Turnpike Mainline from Campbell Dr to Tallahassee Rd Widen from four to six lanes (Construction funded for 2025)

## 4.0 Regional Highway and Freight Networks

Miami-Dade County includes freight networks that are designated by several partner organizations, including the Southeast Florida Transportation Council (SEFTC). SEFTC is a partnership between the Miami-Dade Transportation Planning Organization (TPO), Broward MPO, and Palm Beach Transportation Planning Agency (TPA). The SEFTC holds meetings throughout the year to focus on regional planning efforts, including developing transportation plans, prioritizing projects, measuring performance, and designating and approving the Southeast Florida Regional Network.

#### 4.1 Southeast Florida Regional Freight Network

The Southeast Florida Regional Freight Network comprises the SIS Network and the SEFTC's Regionally Significant Network. The regionally significant corridors include more than 60 roadways classified as interstates and expressways, urban and rural principal arterials, minor arterials that connect two or more interstates, and roadways that cross county lines. These roadways are located within the three counties. **Figure 6,** taken from the *2014 Southeast Florida Regional Freight Plan Update*, depicts a Southeast Florida Regional Freight Network map.

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<sup>&</sup>lt;sup>37</sup> Florida's Turnpike Work Program





Figure 6: Southeast Florida Regional Freight Network

Source: Southeast Florida Regional Freight Plan, 2014

#### 4.2 Miami-Dade TPO Freight Network

The Miami-Dade County Freight Network facilitates the seamless movement of goods between regional and international destinations via its integrated transportation modes. The network comprises roadways, railways, waterways, connectors, and freight hubs, many of which hold SIS or Emerging SIS facility designations, as shown in **Figure 7**.<sup>38</sup> <sup>39</sup>

The Miami-Dade County freight highway network consists of 198 miles of SIS roadways and around 77 miles of the NHFN, with overlapping designations for these two categories. In the *2018 Miami-Dade County Freight Plan*, the Miami River was included as an Emerging SIS Waterway, and the Miami-Kendall Airport was designated as a SIS airport.<sup>40</sup>

Freight operators prioritize overall freight mobility and market access, overlooking municipal jurisdictions. Miami-Dade County is crucial in serving and linking to the South Florida region through major routes such as I-75, I-95, and Florida's Turnpike. These are recognized as high-volume roadways. The US-27 corridor plays a key role in providing entry to the core of industrial Miami-Dade County and establishing connections to the western area of Palm Beach County and Hendry and Glades counties. These counties

<sup>38</sup> Miami-Dade TPO; Miami-Dade County Freight Plan Update 2018

<sup>&</sup>lt;sup>39</sup> It is noted in the 2020 SIS Handbook that Emerging SIS components were combined with SIS components.

<sup>&</sup>lt;sup>40</sup> Miami-Dade TPO; Miami-Dade County Freight Plan Update 2018



actively support the private development of new Intermodal Logistics Centers (ILCs), such as Florida Crystals ILC, Airglades ILC, and Gateway to the Americas ILC.  $^{41}$ 

Moreover, US-27 serves as a critical link connecting South Florida to the rest of the State and is identified as one of FDOT's "future corridors," signifying its importance for the future. Notably, the CSX Railroad facilitates connections across North America, while the FEC Railway serves as a key regional component within Florida. 42

<sup>&</sup>lt;sup>41</sup> Miami-Dade TPO; Miami-Dade County Freight Plan Update 2018

<sup>&</sup>lt;sup>42</sup> Miami-Dade TPO; Miami-Dade County Freight Plan Update 2018



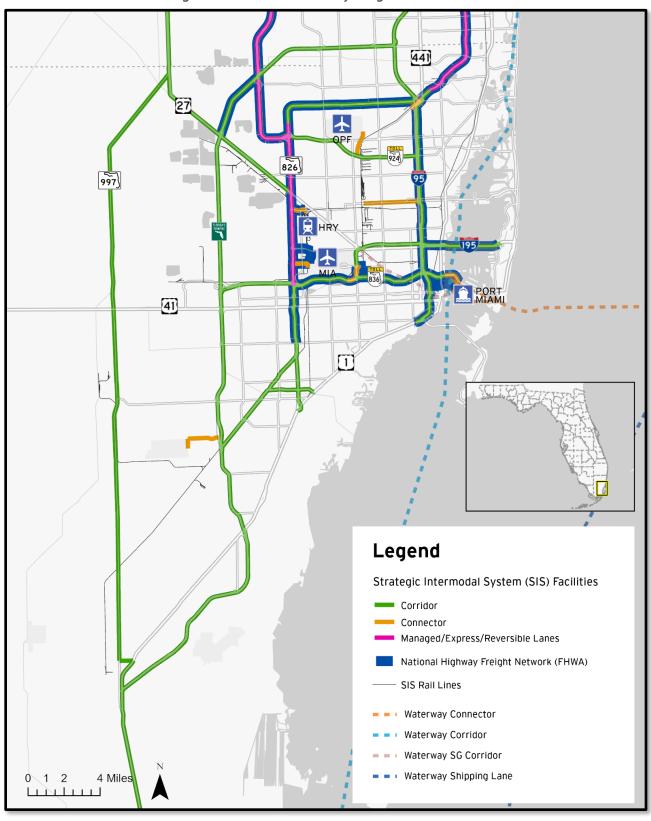


Figure 7: Miami-Dade County Freight Network

Source: FDOT SIS, November 2023



#### 4.3 Greater Miami Expressway Agency

The Greater Miami Expressway (GMX) Agency, previously called the Miami-Dade Expressway Authority (MDX), was established in 1994 under Chapter 348, Part I, of the Florida Statutes (FS).<sup>43</sup> Its primary role was to manage expressway segments in Miami-Dade County, including their acquisition, construction, improvement, maintenance, operation, ownership, and leasing. In the 2023 Regular Legislative Session, the Florida legislature dissolved MDX. This major change led to the creation of the GMX Agency, a new governing state agency.<sup>44</sup> **Table 10** provides a comparison to highlight the different aspects that are changing due to this transition.

Under MDX, five tolled expressway segments in Miami-Dade County were managed. These segments, as shown in **Figure 8**, encompassed about 34 centerline miles and 221 lane-miles of roadway. With the transition to GMX, this agency has now assumed the responsibilities previously held by MDX. GMX oversees, operates, and maintains the same five tolled expressways. Additionally, GMX's role extends to managing CR-94 and future highway construction projects in Monroe County, expanding its jurisdiction beyond that of the former MDX.

Table 10. Miami-Dade Expressway Authority and Greater Miami Expressway Comparison

Aspect	MDX	GMX
Establishment Year	1994	2019 (effective control as of July 1, 2023)
Jurisdiction	Miami-Dade County	Miami-Dade County and part of northeast Monroe County
Primary Functions	Managed toll roads and infrastructure in Miami-Dade County	Oversee, operate, and maintain former MDX expressways, plus CR-94 and future projects in Monroe County
Managed Infrastructure	5 tolled expressway segments	Inherits MDX's infrastructure, plus additional responsibilities for CR-94 and future Monroe County projects
Governance	County commissioners appointed a majority of the board members	Governor appoints a majority of the GMX seats, with additional oversight by the Legislative Budget Commission
Financial Control	Managed its financial assets and toll revenue	State lawmakers have authority over GMX's borrowing and financial decisions

Source: Florida Senate, CS/CS/CS/HB 1305; GMX News, State board taking control of Miami-Dade toll expressways

GMX is currently working on several construction projects, including the SR-836/I-95/I-395 bridge interchange, scheduled to be completed in late 2027. They are also working on the SR-836/Florida's Turnpike Ramp Connections project, which will provide access to commercial and residential areas west of the Turnpike. This project is expected to be completed in Spring 2024. Another project, the Wrong Way Safety Project, involves installing wrong-way detection systems at 26 ramp locations to improve motorists' safety. This project was expected to be completed by Fall 2023; however, no status updates on the installation have been provided.<sup>45</sup>

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<sup>&</sup>lt;sup>43</sup> GMX; About History

<sup>&</sup>lt;sup>44</sup> GMX; News - State board taking control of Miami Dade toll expressways after MDX loses court fight

<sup>&</sup>lt;sup>45</sup> GMX; Projects – Current Construction



The following projects are programmed for the future<sup>46</sup>:

- SR-836 Southwest Extension/Kendall Pky from NW 137<sup>th</sup> Ave to West Kendall Dr and Miami Executive Airport – multimodal limited access facility extension
- SR-924 East Extension to I-95 providing access from major origin and destinations in the cities of North Miami, Opa-Locka, Hialeah, and Miami Lakes
- SR-924 West Extension to Florida's Turnpike providing east/west mobility for commuters and freight traffic
- Connect 4 Express providing north-south linkage between four existing east-west facilities: SR-112, SR-826, SR-836, and SR-924
- SR-874 and SW 72<sup>nd</sup> Street/Sunset Dr Interchange new connection or partial interchange

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<sup>&</sup>lt;sup>46</sup> GMX; Projects – Future Projects/Studies



Hollywood Pembroke 27 Pines Hallandale Miramar Beach 75 **Ives Estates** Aventura Ojus Country Club Carol City 75 Norland North Miami Sunny Isles Scott Lake Beach 27 75 953 95 orth Miami Bay Harbor Islands Hialeah Miami Shores West Little River North Bay Village Hialeah Brownsville Miami Springs Miami International Miami Beach Miami Tamiami Canal Sweetwater Westchester SW 40th St Westwood 913 Lakes Coral Gables Kendall West 913 The Hammocks Pinecrest Three Lakes SW 152nd St Palmetto Palmetto Bay Cutler Richmond West South Miami GMX Heights SR 112 SW 200th St **Cutler Bay** SR 836 SR 874 SW 232nd St SR 878 SR 924 2.5 Miles Biscayne National Park

Figure 8: Greater Miami Expressway System

Source: Greater Miami Expressway Agency



#### 5.0 Truck Restrictions

Efficient and safe freight transportation demands careful consideration of truck lanes, routes, and parking restrictions, especially with the continual projected growth of freight volumes. Truck lane restrictions consider the unique characteristics of large vehicles that promote a smoother traffic flow, benefiting truck and passenger vehicles alike. Strategically designated truck routes ensure that freight carriers can seamlessly access key distribution centers, industrial zones, and urban areas, fostering a well-functioning supply chain. Additionally, parking restrictions prevent congestion and unauthorized truck parking, mitigating safety hazards for truck drivers and surrounding commuters. When implemented effectively, these measures contribute to a sustainable, safe, and efficient freight transportation system.

#### 5.1 Truck Lane Restrictions

Truck Lane Restrictions are enforced throughout the State. Within District Six, there are two road segments with current lane restrictions: no trucks with three or more axles allowed in the left or left two lanes<sup>47</sup>.

- Florida's Turnpike: From Homestead (mile marker 5) to Broward County Line (mile marker 93), a total of 35 miles
- I-95: From Wynwood (mile marker 4) to Broward County Line (mile marker 88), a total of 13 miles

#### 5.2 Truck Parking Restrictions

Miami-Dade County has several parking ordinances and restrictions for trucks, mainly relating to where trucks may park, the duration of parking, and the type of areas where parking is allowed or prohibited. Countywide, parking is usually prohibited in residential and agricultural zones unless for loading and unloading activities.<sup>48 49</sup>

Municipalities within the County also have their own set of parking ordinances and restrictions. Generally, overnight parking is prohibited on public roads, but metered parking is available for trucks for specified time frames and fees. City ordinances, such as in Miami Beach, require drivers to have a Freight Loading Parking Permit and have designated three types of parking options (loading zones). Depending on the city ordinance, these loading zones are allowed for use for specified hours, days, and time limits.<sup>50</sup>

- Freight Loading Zone: On-street parking area, usually 60 to 100 feet long, designated for trucks with a gross vehicle weight over 10,000 lbs.
- Commercial Loading Zone: Similar to the Freight Loading Zone, an on-street or off-street parking area is intended for the use of any commercial vehicle.
- Alley Loading Permit: Allows the use of city right-of-way, providing convenient "back-door" access for loading to businesses or residences. It is required for smaller vehicles servicing commercial establishments with a gross weight under 10,000 lbs.

<sup>48</sup> Miami-Dade County; Code of Ordinances - Trucks; parking prohibited in residential zones

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<sup>&</sup>lt;sup>47</sup> FDOT; Truck Lane Restrictions

<sup>49</sup> Miami-Dade County; Code of Ordinances - Parking of certain categories of vehicles in residential or agricultural zones

<sup>&</sup>lt;sup>50</sup> Miami Beach; Freight Loading Parking Permit Program